DRAWN	PDS	TITLE	DRAWING NUMBER
APPRV	BBK	FABRIC, CLOTH	48-25001
DATE	09-29-87	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 5 / CHG. LTR. -
CADAM ORIGINAL			

UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES

SCOPE: THIS SPECIFICATION IDENTIFIES A WOVEN FABRIC.

APPLICATION: TRIM QUALITY- FOR LOWER STRENGTH APPLICATIONS SUCH AS HEADLINERS, WALL PANELS, AND CURTAINS.

SEATING QUALITY- FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SEAT CUSHIONS AND BACKS.

SPECIFICATION NUMBERS:

TRIM QUALITY - BENCHMARK #2 -X00

COLOR	MANUFACTURER'S PATTERN NUMBER		COLOR NUMBER	FREIGHTLINER SPECIFICATION NUMBER
	LAF			
ANTELOPE	7706		383	48-25001-200
GULL	7706		818	48-25001-300
MINK	7706		379	48-25001-500
CRIMSON	7706		447	48-25001-600
MIDNIGHT	7706		648	48-25001-700
LOBO	7706		888	48-25001-800

SPECIFICATION NUMBERS:

SEATING QUALITY - BENCHMARK #1 -X01

COLOR	MANUFACTURER'S PATTERN NUMBER		COLOR NUMBER	FREIGHTLINER SPECIFICATION NUMBER
	LAF			
ANTELOPE	7705		383	48-25001-201
GULL	7705		818	48-25001-301
MINK	7705		379	48-25001-501
CRIMSON	7705		447	48-25001-601
MIDNIGHT	7705		648	48-25001-701
LOBO	7705		888	48-25001-801

NOTE: ALTERNATE MATERIAL FOR -X00 TRIM QUALITY IS MATCHING COLOR FOR -X01 SEATING QUALITY

CHG	JOB NO	DATE	BY	REVISION
-	PM0400	09-29-87	PDS	INITIAL RELEASE

ENGINEERING REQUIREMENTS:

1.0 GENERAL REQUIREMENTS

DESCRIPTION

THIS SPECIFICATION QUALIFIES WOVEN TYPE FABRICS THAT ARE SUITABLE FOR USE AS TRUCK SEAT UPHOLSTERY AND/OR INTERIOR TRIM. IT ALSO DESCRIBES THE GENERAL REQUIREMENTS FOR FABRIC PROPERTIES, IDENTIFICATION AND QUALITY.

DYE METHOD

UNLESS OTHERWISE SPECIFIED, FABRIC WILL BE PIECE DYED.

ALIGNMENT: (BOW & BIAS)

THE DEGREE OF BOW AND BIAS IN THE FILLING DIRECTION SHALL NOT EXCEED 1/2 INCH FROM SELVAGE TO CENTER, ABOVE OR BELOW THE HORIZONTAL LINE, OR A TOTAL OF ONE INCH FROM SELVAGE TO SELVAGE ABOVE OR BELOW THE HORIZONTAL COMBINED. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED WOVEN MATERIAL.

SEAM STRENGTH: ASTM D-1683

THE JOINING SEAM SHALL RESIST SLIPPAGE OF ANY ONE YARN OR THREAD. THERE SHALL BE NO FRACTURES AT THE SEW LINE IN ANY MATERIAL. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED MATERIAL.

ABRASION: ASTM D-3884

AFTER 500 CYCLES UNDER 250 GRAM LOAD USING CS-17 ABRASION WHEELS, THERE SHALL BE NO APPRECIABLE COLOR CHANGE OF THE ABRADED SURFACE AND NO VISABLE YARN RUPTURES.

GENERAL REQUIREMENTS (CONT'D)

COLORFASTNESS (CROCKING): AATCC TEST METHOD 8

A CROCKING TEST PERFORMED WET AND DRY SHALL SHOW NO APPRECIABLE STAINING OF THE CONTACT FABRIC AND HAVE A MINIMUM AATCC RATING OF FOUR (4) DRY AND THREE (3) WET WHEN COMPARED TO THE AATCC COLOR TRANSFERENCE EVALUATION CHART.

COLORFASTNESS (FADE): AATCC TEST METHOD 16A

THERE SHALL BE NO OFF TONE COLOR ALTERATION AFTER EXPOSURE TO 100 HOUR CARBON ARC FADEOMETER TEST.

BLEEDING AND PERSPIRATION: AATCC TEST METHOD 15

THE CONTACT FABRIC SHALL REMAIN VIRTUALLY UNSTAINED AND TEST SAMPLE SHALL SHOW NO APPARENT CHANGE IN COLOR.

TENSILE STRENGTH (WET AND DRY): ASTM 1682

MINIMUM REQUIREMENTS TO BE DETERMINED BY FABRIC SELECTED.

TEAR STRENGTH: ASTM D-2262

MINIMUM REQUIREMENTS TO BE DETERMINED BY FABRIC SELECTED.

FLAMMABILITY REQUIREMENT: FMVSS-302

MATERIAL SUPPLIED TO THIS SPECIFICATION SHALL CONFORM TO AND BE CERTIFIED BY THE FABRIC SUPPLIER TO MEET THE REQUIREMENTS OF THE FEDERAL MOTOR VEHICLE SAFETY STANDARD #302.....FLAMMABILITY OF INTERIOR MATERIALS.

IDENTIFICATION:

THE BACK OF FABRIC SHALL REFLECT MANUFACTURERS' INITIALS, WITH THE MONTH AND YEAR OF FABRICATION, EQUALLY SPACED A MINIMUM OF FIVE (5) TIMES ACROSS THE WIDTH AND LINEAR SPACING OF NOT MORE THAN 12 INCHES.

CHG	JOB NO	DATE	BY	REVISION
-	PM0400	09-29-87	PDS	INITIAL RELEASE

2.0 SPECIFIC REQUIREMENTS - PATTERN 7706
BENCHMARK #2 -X00 TRIM QUALITY

REQUIREMENT	SPECIFICATION		TEST METHOD
PILE YARN	100% SPUN NYLON 3 DENIER X 4"AVG.STAPLE (VARI-CUT)		----------
WARP YARN-BACKING	100% SPUN RAYON 1.5 DENIER X 1.56"STAPLE		----------
FILLING YARN-BACKING	100% SPUN RAYON 1.5 DENIER X 1.56"STAPLE		----------
WARP: ENDS/INCH	60	±2%	----------
FILLING: PICKS/INCH	28	±2%	----------
PILE TUFTS/SQ INCH:	420	±2%	----------
FINISHED WT: OZS/LIN YD	23	±5%	----------
BACK COATING TYPE	ACRYLIC		----------
SEAM STRENGTH	RESIST SLIPPAGE OF ANY SINGLE THREAD - NO FRACTURES AT SEW LINE		ASTM D-1683
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE		ASTM D-3884
COLORFASTNESS (CROCK)	DRY (4) - WET (3)		AATCC TEST #8
COLORFASTNESS (FADE)	100 HOURS FDA-R NO OFF TONE FADE		AATCC TEST #16A
BLEED & PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR CHANGE		AATCC TEST #15
TENSILE STRENGTH (MIN)	DRY-80 LBS.,WET-40 LBS.		ASTM 1682
TEAR STRENGTH (MIN)	WARP:4 LBS.,FILL:4 LBS.		ASTM 2262
FLAMMABILITY RESISTANCE	MAX.BURN RATE 4"/MIN.		FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	PM0400	09-29-87	PDS	INITIAL RELEASE

DRAWN	PDS	TITLE	DRAWING NUMBER
APPRV	BBK	FABRIC, CLOTH	48-25001
DATE	09-29-87	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 5 OF 5 / CHG. LTR. -
CADAM ORIGINAL			

UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES

3.0 SPECIFIC REQUIREMENTS - PATTERN 7705
BENCHMARK #1 -X01 SEATING QUALITY

REQUIREMENT	SPECIFICATION		TEST METHOD
PILE YARN	100% SPUN NYLON 3 DENIER X 4"AVG.STAPLE (VARI-CUT)		----------
WARP YARN-BACKING	50%NYLON/50%RAYON 1.5 DENIER X 1.56"STAPLE		----------
FILLING YARN-BACKING	50%NYLON/50%RAYON 1.5 DENIER X 1.56"STAPLE		----------
WARP: ENDS/INCH	60	±2%	----------
FILLING: PICKS/INCH	28	±2%	----------
PILE TUFTS/SQ INCH:	420	±2%	----------
FINISHED WT: OZS/LIN YD	23	±5%	----------
BACK COATING TYPE	ACRYLIC		----------
SEAM STRENGTH	RESIST SLIPPAGE OF ANY SINGLE THREAD - NO FRACTURES AT SEW LINE		ASTM D-1683
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE		ASTM D-3884
COLORFASTNESS (CROCK)	DRY (4) - WET (3)		AATCC TEST #8
COLORFASTNESS (FADE)	100 HOURS FDA-R NO OFF TONE FADE		AATCC TEST #16A
BLEED & PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR CHANGE		AATCC TEST #15
TENSILE STRENGTH (MIN)	DRY-110 LBS.,WET-110 LBS.		ASTM 1682
TEAR STRENGTH (MIN)	WARP:7 LBS.,FILL:7 LBS.		ASTM 2262
FLAMMABILITY RESISTANCE	MAX.BURN RATE 4"/MIN.		FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	PM0400	09-29-87	PDS	INITIAL RELEASE

RELEASE NO.	DESCRIPTION	DOCUMENT NO.
P *A078	FLAT STEEL LOW CARBON, HOT ROLLED	48-25004
LAST REV LTR -		SHEET 1 OF 2

RLSE NO.	BY	DATE	REVISION DESCRIPTION

RLSE NO.	BY	DATE	REVISION DESCRIPTION
P*A078	ERK	10-21-87	DO NOT RELEASED

SCOPE — THIS SPECIFICATION IDENTIFIES HOT ROLLED LOW CARBON STEEL PLATE AND FLAT BAR.

APPLICATION — A GENERAL PURPOSE STEEL SUITABLE FOR MILD FORMING, MACHINING AND WELDING IN NON-STRUCTURAL APPLICATIONS.

SPECIFICATION NUMBERS

T THICKNESS	WT LB/FT^2		FREIGHTLINER SPECIFICATION NUMBER
1/4	10.20		48- 25004 - 025
5/16	12.75		" - 031
3/8	15.30		- 038
7/16	17.85		- 044
1/2	20.40		- 050
5/8	25.50		- 063
3/4	30.60		- 075
7/8	35.70		- 088
1	40.80		- 100
1 1/8	45.90		
1 1/4	51.00		- 125
1 3/8	56.10		- 138
1 1/2	61.20		
1 3/4	71.40		
2	81.60		
2 1/2	102.00		
3	122.40		
4	163.20		

DRAWN BY	ERK	DATE DRAWN		UNIT OF MEASURE	MASTER NO.
APVD BY	KCB	10-21-87			0A21D

FREIGHTLINER CORPORATION 12-17-87

RELEASE NO.	DESCRIPTION	DOCUMENT NO.
P*A078	TUBING, SINGLE WALL, HEAT SHRINKABLE	48-25005
LAST REV LTR		SHEET 1 OF 1

LTR	RLSE NO.	BY	DATE	REVISION DESCRIPTION

SCOPE THIS SPECIFICATION IDENTIFIES BLACK SINGLE WALL FLAME RETARDED POLYOLEFIN TUBING FOR ENCAPSULATION OF ELECTRICAL COMPONENTS.

APPLICATION INSULATES ELECTRICAL COMPONENTS.

SPECIFICATION NUMBERS

MIN I.D.	MAX RECOVERED I.D.		FREIGHTLINER SPEC NO
1/8	.062		48-25005-012
3/16	.093		
1/4	.125		-025
3/8	.187		-038
1/2	.250		-050
3/4	.375		-075
1	.500		-100

SPECIFICATIONS

1. MATERIAL: SINGLE WALL POLYOLEFIN
2. MIN SHRINK TEMP: 115°C
3. CONT. OPERATING TEMP: -55°C to 135°C
4. TYPICAL PROPERTIES:
   - 4.1 DIELECTRIC STRENGTH: 500 volts/mil/min
   - 4.2 TENSILE: 1500 psi
   - 4.3 % ELONGATION: 200
5. MUST CONFORM WITH REQUIREMENTS OF MIL-I-23053/5.

ESY GPO-135
"REMTEK"

LTR	RLSE NO.	BY	DATE	REVISION DESCRIPTION
—	P*A078-04	EPK	12/02/87	Tubing

DRAWN BY	ERK	DATE DRAWN			MASTER NO.
APVD BY	RLP	12/02/87			

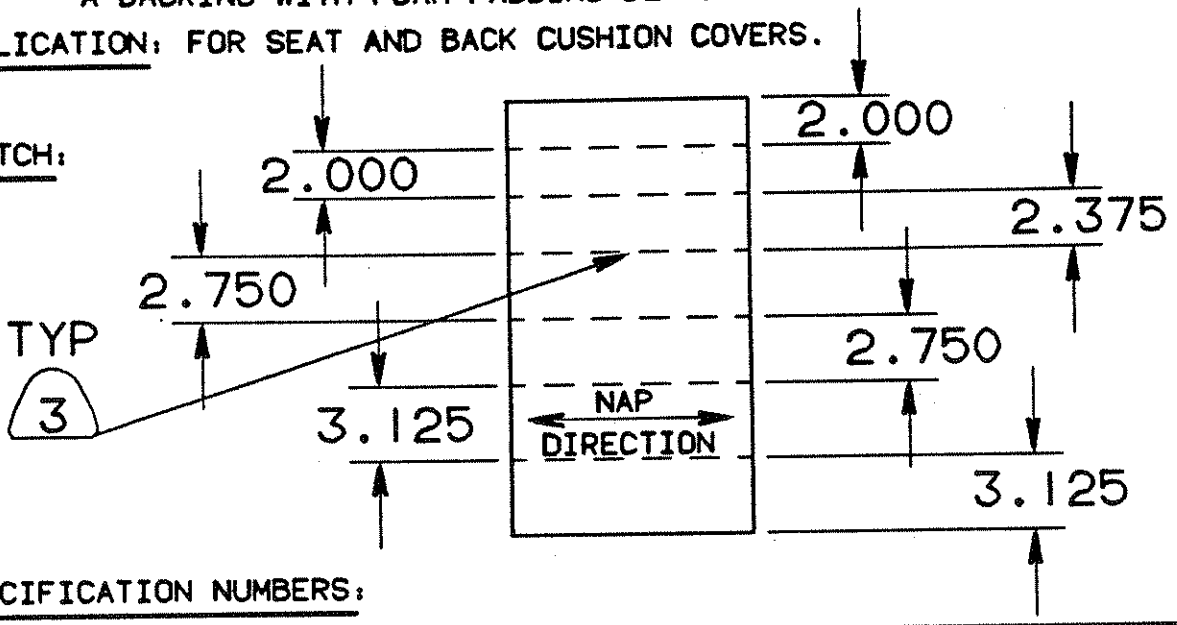
FREIGHTLINER CORPORATION 12-17-87

ORIGINAL JOB NO.	TITLE	PART NO.
M0400	CLOTH, SEAT INSERT	48-25006
LAST CHG LTR -		SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES A NYLON FACE CLOTH BONDED TO A BACKING WITH FOAM PADDING BETWEEN.

APPLICATION: FOR SEAT AND BACK CUSHION COVERS.

SKETCH:



SPECIFICATION NUMBERS:

COLOR	CLOTH	MANUFACTURER	FREIGHTLINER SPECIFICATION NUMBER
	FREIGHTLINER NUMBER	CMO	
ANTELOPE	48-25001-201		48-25006-200
GULL	-301		-300
MINK	-501		-500
CRIMSON	-601		-600
MIDNIGHT	-701		-700
LOBO	-801		-800

SPECIFICATION:

OD000

1. MATERIAL:

   FACE: 48-25001-# CLOTH

   BACK: "QUILTON" (A NON-WOVEN DACRON, PER MFR'S SPEC.)

   PADDING: SOFT, RESILIENT, OPEN CELL POLYURETHANE FOAM, 3/8" (9.5 MM) THICK 1.45 LB/CU FT (23.2 KG/CU MR) DENSITY, INDENT LOAD OF 33.

2. FLAMMABILITY: MUST PASS FMVSS NO. 302, FLAMMABILITY OF INTERIOR MATERIALS.

(3) PATTERN: IMITATION STITCH EMBOSSING PATTERN TO MEET FREIGHTLINER PROCESS SPECIFICATION 49-00038, UPHOLSTERY FINISHING.

COMPILED	PDS	DATE DRAWN	CADAM ORIGINAL	UNIT OF MEASURE	MASTER NUMBER
APPROVED	BBK	01-22-88			

LTR	JOB NO.	BY	DATE	CHANGE INFORMATION
-	PM0400	PDS	01-22-88	INITIAL RELEASE.

LTR	JOB NO.	BY	DATE	CHANGE INFORMATION

EAC-826

PORTLAND FREIGHTLINER CORPORATION OREGON 97216

5-15-8 MF

DRAWN	M.THWING	TITLE	DRAWING NUMBER
APPRV	KCB	STEEL SHEET, STAINLESS TYPE 434 COLD ROLLED	48-25008
DATE	03-15-88	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET | OF | / CHG. LTR. -
CADAM ORIGINAL			

UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES | UNIT OF MEASURE: ..

SCOPE: THIS SPECIFICATION IDENTIFIES TYPE 434 COLD ROLLED STAINLESS STEEL SHEET

APPLICATION: THE STEEL IS CORRROSION RESISTANT, HAS GOOD FORMING CHARACTERISTICS, AND IS READILY FABRICATED. IT'S PRIMARY USE IS FOR TRIM APPLICATIONS SUCH AS MUFFLER HEAT SHIELDS

SPECIFICATION NUMBER:

GAGE	THICKNESS		NO.2 BRIGHT ANNEALED
20	.036		48-25008-220

SPECIFICATIONS:

1. SHEET SHALL CONFORM TO APPLICABLE PROVISIONS OF ASTM A240
2. SHEET TO BE PROTECTED WITH PVC COATING
3. MECHANICAL PROPERTIES:

MINIMUM PROPERTIES			MAXIMUM PROPERTIES
TENSILE ULT KSI	YIELD KSI	ELONGATION % IN 2 IN.	HARDNESS (Rb)
76	53	23	83

CHG	JOB NO	DATE	BY	REVISION
-	P0559E	03-15-88	EMT	ORIGINAL RELEASE

RELEASE NO.	DESCRIPTION	DOCUMENT NO.
P*A078-26	HOSE-AIR CONDITIONING, PARFLEX 80	48-25009
LAST REV LTR: -		SHEET 1 OF 1

LTR	RLSE NO.	BY	DATE	REVISION DESCRIPTION

LTR	RLSE NO.	BY	DATE	REVISION DESCRIPTION
-	P*A078-26	ERK	06/20/88	DOCUMENTED

SCOPE: THIS SPECIFICATION IDENTIFIES A MEDIUM PRESSURE HOSE WITH A HEAT STABILIZED NYLON CORE TUBE REINFORCED WITH NYLON BRAID COVERED WITH AN ELASTOMERIC COVER.

APPLICATION: AIR CONDITIONING TUBING.

SPECIFICATION NUMBERS:

SIZE	NOMINAL HOSE ID MM	NOMINAL HOSE ID (INCH)	MANUFACTURER'S NO.	FREIGHTLINER SPECIFICATION NORMAL
6	8.0	.315	PH 765231	48-25009-032
8	10.5	.414	PH 765241	-041
12	16.0	.630	PH 765263	-063

SPECIFICATIONS:

PERFORMANCE: MUST MEET QUALIFICATION AND INSPECTION TEST SECTION 4. OF SAE J51 STANDARD FOR TYPE C HOSE EXCEPT FOR 4.8, 4.9, AND 4.12.

THIS HOSE DOES NOT MEET THE CONSTRUCTION OR DIMENSIONAL REQUIREMENTS FOR SAE J51 HOSE.

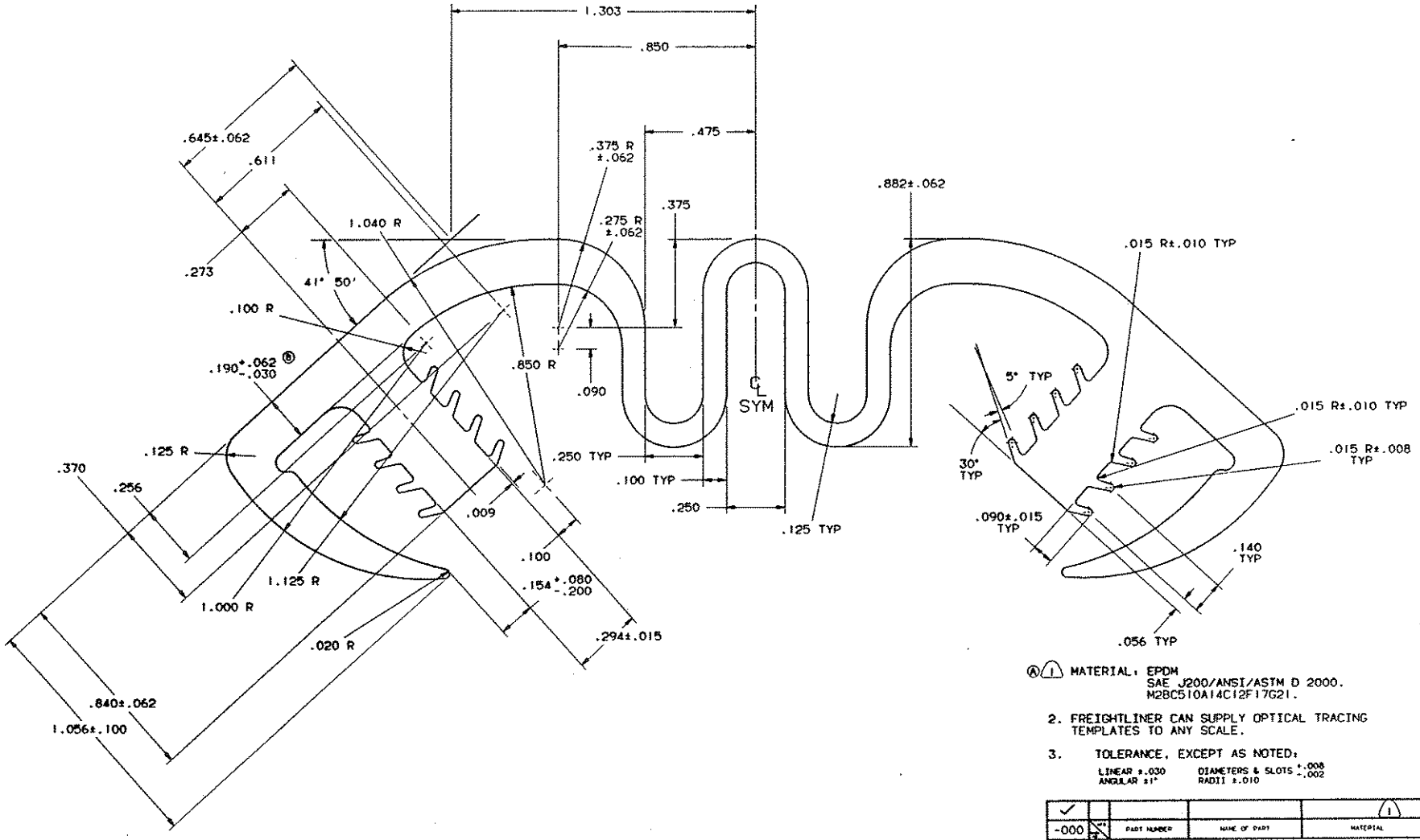
REQUIREMENTS:

ITEM	SIZE 6 MM	SIZE 6 (IN)	SIZE 8 MM	SIZE 8 (IN)	SIZE 12 MM	SIZE 12 (IN)
I.D.	8.0/8.2	(.314/.324)	10.1/10.6	(.396/.416)	15.6/16.1	(.615/.635)
O.D.	15.2/16.2	(.60/.64)	18.0/19.0	(.71/.75)	23.6/24.6	(.93/.97)
MIN BEND R:	50.8	(2.0)	76.2	(3.0)	114.3	(4.5)

BURST PRSR RATING: ---------- 2500 PSI ----------
LEAK TEST: ---------- 500 PSI AIR UNDER WATER W/ NO LEAKS ----------
TENSILE: ---------- 500 LBS MINIMUM ----------
PROOF TEST PRESSURE: ---------- 1000 PSI ----------

DRAWN BY	ERK	DATE DRAWN			MASTER NO.
APVD BY	KCB	06/20/88			

FREIGHTLINER CORPORATION



Ⓐ⚠1 MATERIAL: EPDM
SAE J200/ANSI/ASTM D 2000.
M2BC510A14C12F17G21.

2. FREIGHTLINER CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY SCALE.

3. TOLERANCE, EXCEPT AS NOTED:
LINEAR ±.030 ANGULAR ±1° DIAMETERS & SLOTS +.008 -.002 RADII ±.010

B	P7115F	08-13-90	RDS	EVB	FROM .190±.030 TO .190+.062/-.030
A	PK0322	06-24-89	EMB	EVB	REVISED AND REDRAWN.
-	PK0322	10-04-88	CAJ	CAJ	INITIAL RELEASE

✓				⚠1	
-000		PART NUMBER	NAME OF PART	MATERIAL	ITEM

FREIGHTLINER CORPORATION
PORTLAND, OREGON

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY DATA OF FREIGHTLINER CORPORATION AND IS NOT FOR DISCLOSURE OR REPRODUCTION IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SUPPLIED EXCEPT AS AUTHORIZED IN WRITING BY FREIGHTLINER CORPORATION.

DRAWN BY	CAJ	10-04-88	BOOT,EXTRUSION
CHECKED	WTN	4-28-89	CAB TO SLEEPER BOX BOOT
ENGR APPROVAL	CAJ	10-04-88	PUSH IN BOOT
MFG APPROVAL	G.SHARP	5-01-89	
FINAL APPROVAL	PWS	10-04-88	SIZE 5X · SCALE 1=1 · DRAWING NUMBER 48-25012 · REV B

DO NOT SCALE

COMMENT=
GROUP=REL2 SUBGRP=MAS SCALE= 0.0000 DRAWID=48-25012
DATE=11/19/91 TIME=10.26 ACCESS=NONE
LOGON ID=
PLOT TOO LARGE - SCALE OF 0.000 WAS FACTORED BY 2.149

ADRIENNE CHILBERG

DRAWN	ERK	TITLE	DRAWING NUMBER	
APPRV	KCB	TUBING NYLON, REINFORCED	48-25024	
DATE	01/18/90	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION DESCRIBES REINFORCED NYLON TUBING THAT MEETS THE REQUIREMENTS OF SAE J844 TYPE B, EXCEPT FOR IDENTIFICATION.

APPLICATION: FOR USE IN PORTIONS OF FEUL LINE SYSTEMS ONLY.

SPECIFICATION NUMBERS:

O.D. NOM (IN)	I.D. BASIC	COLOR		FREIGHTLINER SPECIFICATION NUMBER
3/8	.251	BLUE		48-25024-301
1/2	.376	BLUE		-401
5/8	.441	BLUE		-501

SPECIFICATION:

1. MATERIAL: EQUALS OR EXCEEDS THE MATERIAL AND MECHANICAL PERFORMANCE SPECIFICATIONS OF SAE J844 TYPE B.

2. IDENTIFICATION: THE FOLLOWING MINIMUM INFORMATION, IN THE ORDER LISTED, IS REQUIRED.
   (A) FUEL LINE
   (B) REF. SAE J844
   (C) TYPE B
   (D) NOMINAL TUBING O.D. IN FRACTIONS OF INCH- 3/8, 1/2, ETC.
   (E) TUBING MANUFACTURER'S IDENTIFICATION
   (F) DATE OF MANUFACTURE

3. CONSTRUCTION: TUBE - EXTRUDED NYLON 11 CONTAINING ADDITIVES WHICH PROVIDE HEAT RESISTANCE.
   REINFORCEMENT - POLYESTER BRAID EQUIVALENT.
   COVER - NYLON 11

4. TEMPERATURE RANGE: -40°C TO +93°C (-40°F TO +200°F)

5. MAXIMUM WORKING PRESSURE: 150 PSI

CHG	JOB NO	DATE	BY	REVISION
-	PX0405-04	01/18/90	ERK	DOCUMENTED
A	P01153-45	02/19/97	JCT	REVISED AND REDRAWN IN CATIA. ADDED -501

DRAWN	ERK	TITLE	DRAWING NUMBER	
APPRV	KCB	SHEET-STEEL, ELECTROPLATED ZINC COATED, SPECIAL KILLED	48-25025	
DATE	02/22/90	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. D
CATIA ORIGINAL				

Scope: This specification defines a drawing quality special killed steel sheet zinc-coated by the electrolytic process.

Application: For use in fabricating parts where drawing and forming is particularly severe and which require atmospheric corrosion resistance and a surface that can be phosphated and painted with good adhesion and appearance.

MINIMUM THICKNESS (IN)	MINIMUM WEIGHT LB/FT^2	COATING DESIGNATION	GAGE NUMBER	INCH EQUIVALENT	FREIGHTLINER SPECIFICATION NUMBER
.058	2.30	70G70GE	16	.0635	48-25025-116
.039	1.61	70G70GE	19	.042	48-25025-119
.033	1.38	70G70GE	20	.036	48-25025-120

D,C
B

Engineering Notes:

1. Material to be specified and ordered at minimum thickness.
2. Surface shall have no chemical treatment and shall be oiled and free from corrosion.
3. Base material shall conform to the following chemical composition:

ELEMENT	% COMPOSITION BY WEIGHT
CARBON	0.10 MAX
MANGANESE	0.50 MAX
PHOSPHOROUS	0.025 MAX
SULFUR	0.035 MAX

4. Test specimens of coated metal shall be capable of being bent through 180 degrees in any direction without flaking of the coating on the outside of the bend except within 6.4mm (.25 inch) of the edge of the bend specimen.
5. Material must conform to applicable provisions of ASTM A879.
6. Thickness cannot exceed standard tolerance for stated ref. gage.

CHG	JOB NO	DATE	BY	REVISION
B	P02831-02	05/27/97	DAJ	REVISED AND REDRAWN IN CATIA. ADDED -119.
C	P02765-01	12/02/98	DAJ	ADDED -116.
D	PA2042-97	10/12/99	LFB	.058 WAS .055, .0635 WAS .060.

DRAWN	ERK	TITLE	DRAWING NUMBER	
APPRV	KCB	SHEET-STEEL, ELECTROPLATED ZINC COATED, SPECIAL KILLED	48-25025	
DATE	02/22/90	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. D
CATIA ORIGINAL				

7. Coated material shal be free from defects such as blisters and uncoated spots which may be detrimental to the fabrication and/or function of the finished part.

8. Mechanical properties are not published for drawing quality, zinc-coated steels. The following mechanical property table is for reference only:

YIELD POINT KSI (TYP)	TENSILE STRENGTH KSI (TYP)	ELONGATION (% IN 2 IN)	HARDNESS RANGE (R_B)
25	43	41	35-48

9. Coating:
Coating mass: The coating mass for each side is designated by the minimum value in grams per square meter.

Coating designation: This specification uses a seven character designation that identifies the type of coating mass and finish. Provision is made for specifying a variety of coating masses each with a selection of finishes to satisfy various performance and appearance and appearance requirements.

The coating designation shall be stated as follows:
The 1st and 2nd characters indicate the minimum mass of the unexposed side expressed in grams per square meter.

The 3rd character indicates the coating composition of the unexposed side where G = zinc coating.

The 4th and 5th characters indicate the minimum coating mass of the other side (exposed, if applicable).

The 6th character indicates the coating composition of the other side (exposed, if applicable) where G = zinc coating.

The 7th character indicates intended use where E = exposed and U = unexposed.

The user of galvanized steel should specify either exposed (E) or unexposed (U) surface quality as required. It is the steel supplier's responsibility to supply a galvanized surface finish suitable for the application.

Example: 70G70GE = 70 grams/square meter minimum of zinc coating on each side for an exposed application.

90G90GU = 90 grams/square meter minimum of zinc coating on each side for an unexposed application.

CHG	JOB NO	DATE	BY	REVISION
B	P02831-02	05/27/97	DAJ	REVISED AND REDRAWN IN CATIA. ADDED -119.
C	P02765-01	12/02/98	DAJ	ADDED -116. SEE SHEET 1.
D	PA2042-97	10/12/99	LFB	.058 WAS .055. .0635 WAS .060. SEE SHEET 1

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	KCB	FLUID - BRAKE △ DOT 3	48-25032
DATE	09/25/90	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES A POLYALKYLENE GLYCOL ETHER BASED FLUID WITH GOOD HYDRAULIC PROPERTIES.

APPLICATION: HYDRAULIC BRAKE FLUID.

DESIGNATION		FREIGHTLINER SPECIFICATION NUMBER
DOT 3		48-25032-001

A

SPECIFICATIONS:

1. FLUID MUST CONFORM WITH APPLICABLE PROVISIONS OF FMVSS 116 FOR DOT 3 BRAKE FLUID.

△ INDICATES A MATERIAL CONTROLLED BY A SAFETY STANDARD. MATERIALS SHOWN ON THIS DRAWING MUST COMPLY WITH THE APPLICABLE REQUIREMENTS OF FMVSS 116.

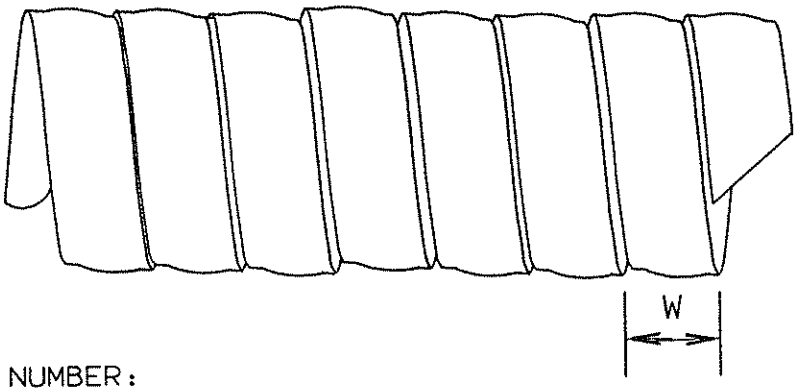
CHG	JOB/RLSE NO	DATE	BY	REVISION
-	PX2403-18	09/25/90	ERK	DOCUMENTED
A	PA2024-46	10/02/90	ERK	REVISED SPECIFICATIONS & ADDED SAFETY LOGO.

DRAWN	ERK	TITLE GUARD - WIRE PLASTIC	ITEM NUMBER 48-25035
APPRV	KCB		
DATE	12/19/90	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES A PLASTIC PROTECTIVE COIL SPRING GUARD.

APPLICATION: PROVIDE HOSES WITH EXTRA PROTECTION AGAINST ABRASION.

SKETCH:



SPECIFICATION NUMBER:

I.D. (INCHES)	WIDTH (W) (INCHES)	COLOR	FREIGHTLINER SPECIFICATION NUMBER
1.875	.625	BLACK	48-25035-187

SPECIFICATIONS:

1. MATERIAL: CELLULOSE ACETATE BUTYRATE
2. TEMPERATURE RANGE: -40°C TO +82°C
3. HARDNESS, ROCKWELL R SCALE: (ASTM D 785) 79
4. TENSILE STRENGTH AT YIELD, PSI: (ASTM D 638) 4,300
5. FLEXURAL STRENGTH AT YIELD, PSI: (ASTM D 790) 6,200

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	PX0222-29	12/19/90	ERK	DOCUMENTED

DRAWN	ERK	TITLE CONDUIT - PVC ROUND, SEAMLESS	ITEM NUMBER 48-25040
APPRV	KCB		
DATE	04/29/91	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES ROUND SEAMLESS PLIABLE PVC INSULATING CONDUIT.

APPLICATION: FLEXIBLE WEATHERPROOF PROTECTIVE COVERING FOR ELECTRICAL WIRING.

SPECIFICATION NUMBERS:

NOMINAL INSIDE DIA(MM)	WALL THICKNESS (MM)		FREIGHTLINER SPECIFICATION NUMBER
10	0.50-0.76		48-25040-010

SPECIFICATIONS:

1. MATERIAL: SOFT SEAMLESS PVC.
2. COLOR: BLACK

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	PA2029-81	04/29/91	ERK	DOCUMENTED

DRAWN	SJT	TITLE	ITEM NUMBER
APPRV	RDF	SHEET - EPDM 60 DUROMETER	48-25041
DATE	06/21/91	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES EPDM RUBBER SHEET.

SPECIFICATION NUMBER:

DESCRIPTION	ELASTOMER	COLOR	APPROXIMTE WEIGHT (LBS./SQ.YD. 1/16" THICK)	WIDTH * (INCHES)	GAUGE (INCHES)	FREIGHTLINER SPECIFICATION NUMBER
RUBBER SHEET	EPDM	BLACK	3.3	36	1/16	48-25041-062

*WIDTH TOLERANCE IS ±ONE INCH.

SPECIFICATIONS:

1. MATERIAL: EPDM PER SAE J200 3BA 608.
2. DUROMETER: 55 - 70
3. TENSILE STRENGTH: 800 PSI.
4. ELONGATION AT BREAK: 350% MIN.
5. FINISH: SMOOTH OR CLOTH IMPRESSION.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	PF0572-04	06/21/91	SJT	DOCUMENTED

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	KCB	ADHESIVE-HOT MELT PRESSURE SENSITIVE	48-25042
DATE	04/30/91	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES A PERMANENT GRADE, HOT MELT PRESSURE SENSITIVE ADHESIVE.

APPLICATION: BONDING OF RELATIVELY LIGHT WEIGHT MATERIAL, SUCH AS LOW DENSITY FOAM TO INSIDE OF CAB WITH AN ADHESIVE FREE OF SOLVENT.

DESCRIPTION	FREIGHTLINER SPECIFICATION NUMBER
ADHESIVE-HOT MELT PRESSURE SENSITIVE	48-25042-001

TYPICAL PHYSICAL PROPERTIES:

1.	RAW MATERIAL BASE	SYNTHETIC RESIN.
2.	180 DEGREE STAINLESS STEEL PEEL	5.0 MINIMUM LBS/INCH.
3.	POLYKEN TACK	1,200 GRAMS.
4.	VISCOSITY @ 149°C	60,000 CP (MPA.S).
5.	VISCOSITY @ 163°C	27,000 CP (MPA.S).
6.	VISCOSITY @ 177°C	10,000 CP (MPA.S).
7.	SAFT (GMS/IN^2 LOAD)	88°C.
8.	RECOMMENDED APPLICATION TEMPERATURE:	177°C.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P7802G-01	04/30/91	ERK	DOCUMENTED

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	KCB	ADHESIVE-PRESSURE SENSITIVE TRANSFER FILM	48-25043
DATE	05/16/91	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES A TRANSFER FILM ADHESIVE.

APPLICATION: INTENDED FOR USE IN BONDING FLEXIBLE VINYLS TO EXPANDED PLASTIC FOAM. MAXIMUM ADHESION DEPENDENT ON GOOD SURFACE CONTACT AND APPLICATION PRESSURE.

SPECIFICATION NUMBER:

PRODUCT	MFR.	FREIGHTLINER SPECIFICATION NUMBER
PRESSURE SENSITIVE ADHESIVE #90426	MR	48-25043-001

SPECIFICATIONS:

1. 3 MIL THICK ACRYLIC BASED PRESSURE SENSITIVE ADHESIVE WITH WHITE OR TAN COATED PAPER RELEASE LINER. THIS IS A FREE FILM ADHESIVE WITH NO CARRIER.
2. TO BE SUPPLIED IN ROLLS 50MM (2 INCHES) WIDE.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	PX2005-48	05/16/91	ERK	DOCUMENTED

APPRV	KCB	ANTIFREEZE BASF G 05	48-25044
DATE	05/28/91	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES BASF CORPORATION'S G 05 FORMULA ANTIFREEZE.

APPLICATION: APPROVED ANTIFREEZE FOR FREIGHTLINER'S CLASS 6 AND 7 TRUCKS WITH THE OPTIONAL MERCEDES-BENZ ENGINE.

SPECIFICATION NUMBER:

MANUFACTURER	PRODUCT		FREIGHTLINER SPECIFICATION NUMBER
BASF	G 05 ANTIFREEZE		48-25044-001

BASF G 05 CHARACTERISTICS:

1. HIGH SILICATE ETHYLENE GLYCOL BASED ANTIFREEZE.
2. CONTAINS STABLE INHIBITORS THAT PROTECT THE ENGINE AGAINST CORROSION.
3. APPROVED BY DBAG.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	PX0104-50	05/28/91	ERK	DOCUMENTED

APPRV	ERK	HOSE, LOW PRESSURE PUSH ON, TEXTILE BRAID	48-25049
DATE	07/03/91	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE

THIS SPECIFICATION IDENTIFIES TEXTILE BRAID REINFORCED PUSH ON LOW PRESSURE HOSE.

APPLICATION

FOR LOW PRESSURE & HIGH TEMPERATURE APPLICATION OF AIR, WATER, DIESEL FUEL, LUBRICATING OILS, & ANTIFREEZE.

NOT RECOMMENDED FOR HYDRAULIC IMPULSE APPLICATIONS AND NOT APPROVED FOR AIR BRAKE APPLICATIONS.

SPECIFICATION NUMBERS

HOSE SIZE	I.D. (IN)	O.D. (IN)	APPROVED VENDOR PRODUCTS		FREIGHTLINER SPECIFICATION NUMBER
			PH	AQ	
8	.50	.75	836-8	FC332-08	48-25049-008

SPECIFICATIONS

1. CHARACTERISTICS: MAX. WORKING PRESSURE OF 250 PSI.

   MIN. BURST PRESSURE OF 1000 PSI.

   MIN. BEND RADIUS OF 5 IN.

   TEMPERATURE RANGE IS -40°C TO +150°C (-40°F TO +300°F).

2. CONSTRUCTION: ELASTOMER COVER & LINER. TEXTILE BRAID REINFORCEMENT.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	PH0439-01	07/03/91	SJT	INITIAL RELEASE

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	ANF	SHEET - NEOPRENE, REINFORCED CLOTH INSERTED STOCK	48-25050
DATE	07/18/91	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES FABRIC REINFORCED NEOPRENE RUBBER SHEET COMMONLY REFERRED TO AS CLOTH INSERTED STOCK.

APPLICATION: GENERAL USE WITH LOWER TENSILE THAN DIAPHRAGM STOCK.

SPECIFICATION NUMBERS:

THICKNESS (INCHES)		FREIGHTLINER SPECIFICATION NUMBER
3/16		48-25050-187

SPECIFICATIONS:

1. MATERIAL: NEOPRENE, 65 - 75 DUROMETER.
2. COLOR: BLACK
3. MINIMUM TENSILE (PSI) FOR RUBBER W/O FABRIC: 800
4. CONSTRUCTION: ONE PLY OF FABRIC IN 1/16 INCH THICKNESS.
5. FABRIC WEIGHT: 4.0 OZ.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2240H-02	07/18/91	ERK	DOCUMENTED

DRAWN	ERK	TITLE SEALER - THUMBABLE CHEMSECO TC-8	ITEM NUMBER 48-25051
APPRV	JC		
DATE	08/16/91	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES CHEMSECO TC-8, A THUMBGRADE, NON-CURING, TEMPERATURE RESISTANT SEALER THAT IS EASILY MOLDED BY HAND AND EASILY "THUMBED" OVER HOLES AND GAPS. THE SEALER IS INTENDED TO BE APPLIED AFTER E-COAT BAKE AND PRIOR TO COLOR COAT.

APPLICATION: THE MATERIAL IS INTENDED FOR USE IN FILLING VOIDS AND PLUGGING HOLES AND GAPS IN CAB BODIES.

SPECIFICATION NUMBER:

MANUFACTURER	PRODUCT		FREIGHTLINER SPECIFICATION NUMBER
CHEMSECO	TC-8		48-25051-001

GENERAL CHARACTERISTICS:

1. COLOR: BLACK
2. COLD RESISTENCE: MATERIAL IS PLIABLE AND DOES NOT CRACK AT -20°F.
3. ELEVATED TEMPERATURE RESISTANCE: MATERIAL IS STABLE. NO SAG OR OOZING OUT AT TEMPERATURE OF 110°C. OR BELOW.
4. ADHESION: MATERIAL DOES NOT CRACK OR LOSE ADHESION.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P3951H-01	08/16/91	ERK	DOCUMENTED

ADRIENNE CHILBERG

DRAWN	ERK	TITLE	DRAWING NUMBER	
APPRV	-	ANTIFREEZE PROPYLENE GLYCOL INDUSTRIAL GRADE	48-25055	
DATE	04/20/92	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. B
CATIA ORIGINAL				

UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES

SCOPE: THIS SPECIFICATION IDENTIFIES INDUSTRIAL GRADE PROPYLENE GLYCOL. HYGROSCOPIC, COMPLETELY SOLUBLE IN WATER, AND EASILY MIXED WITH MOST ORGANIC SOLVENTS.

APPLICATION: ENGINE COOLANT AND ANTIFREEZE PROTECTION.

SPECIFICATION NUMBER:

% PROPYLENE GLYCOL BY VOLUME	FREIGHTLINER SPECIFICATION NUMBER
100	48-25055-001
50	48-25055-002

B

SPECIFICATIONS:

DISTILLATION AT 760 MM HG.
IBP, °C ---------- 185, MIN.
DP, °C ---------- 190, MAX.

CHLORIDES ---------- 10 PPM AS CL, MAX.
WATER ---------- 0.2 WT%, MAX.

TYPICAL PROPERTIES:

DENSITY AT 25°C ----- 8.65 LBS/GAL
FREEZING POINT °C --- SUPERCOOLS <-60.
A COLOR ---------- RED

NOTES:

B 1. 48-250225-002 IS A 50-50 MIX WHICH INCLUDES 50% WATER AND 50% ANTIFREEZE BY VOLUME.

CHG	JOB NO	DATE	BY	REVISION
-	485143-03	04/20/92	ERK	DOCUMENTED
A	485143-07	04/23/92	ERK	ADDED DOCUMENT NOTE
B	P01701-65	02/20/97	JCT	REVISED AND REDRAWN IN CATIA. ADDED 48-25055-002.

DRAWN	CGD	TITLE	DRAWING NUMBER	
APPRV	DAJ	BAR-STAINLESS STEEL ROUND, TYPE 304	48-25058	
DATE	08/27/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. B
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES COLD FINISHED, ANNEALED, ROUND, STAINLESS STEEL, TYPE 304.

APPLICATION: SUITABLE FOR APPLICATIONS WHERE CORROSION RESISTANCE IS A REQUIREMENT.

DIAMETER (INCHES)	WEIGHT LBS/FT	FREIGHTLINER PART NUMBER
0.750	1.502	48-25058-075
1.000	2.67	48-25058-100
1.125	3.38	48-25058-112

ENGINEERING NOTES:

1. MATERIAL: TYPE 304 STAINLESS STEEL, COLD FINISHED, ANNEALED.
2. MATERIAL MUST CONFORM TO APPLICABLE PROVISIONS OF ASTM A 276, A 479, AND QQ-S-763.
3. TYPICAL MECHANICAL PROPERTIES:

TENSILE STRENGTH KSI	YIELD STRENGTH KSI	ELONGATION % IN 2 IN.	BRINNELL HARDNESS
64	54	15	126

CHG	JOB NO	DATE	BY	REVISION
B	P09736-01	08/27/99	CGD	REVISED AND REDRAWN IN CATIA, ADDED 48-25058-075.

ADRIENNE CHILBERG

DRAWN	ERK	TITLE	DRAWING NUMBER
APPRV	CAC	CABLE-LOW TENSION, TXL THERMOSET INSULATION	48-25085
DATE	12/22/93		
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3 / CHG. LTR. D

SCOPE: THIS SPECIFICATION IDENTIFIES A CHEMICALLY CROSSLINKED POLYETHYLENE INSULATED CABLE FOR USE IN LOW TENSION APPLICATIONS.

APPLICATION: AUTOMOTIVE ELECTRICAL WIRING, EXCEPT THE ENGINE STARTER POWER CIRCUIT, AND BATTERY INTERCONNECTION AND GROUNDING.

	WIRE SIZE		COLOR* ⚠1	STRANDS		MIN CONDCT AREA (MM^2)		MIN WALL INSUL (MM)	OD MAX (MM)	FREIGHTLINER SPECIFICATION NUMBER
	MM^2	REPLCS		NO	AVG SIZE MM					
D	0.5	20 GA	**	7	0.31	.46		0.28	1.80	48-25085-05X
	0.8	18 GA		7 16 19	0.38 0.26 0.23	0.76		0.28	2.12	-08X
	1.0	16 GA		7 19	0.46 0.28	1.13		0.28	2.25	-10X
	2.0	14 GA		19	0.36	1.85		0.28	2.66	-20X
	5.0	10 GA		19	0.57	4.65		0.35	3.88	-50X

C ENGINEERING NOTES:

* GRAY IS FREIGHTLINER'S STANDARD COLOR FOR TXL CABLE. NON-STANDARD CABLE SPECIFICATIONS ARE FOR SPECIAL APPLICATIONS ONLY, AND REQUIRES ELECTRICAL ENGINEERING APPROVAL.

** FINAL DIGIT OF MATERIAL SPECIFICATION DASH NUMBER "X" INDICATES THE COLOR OF THE INSULATION AS FOLLOWS:
BLACK 0 BROWN 1 RED 2 ORANGE 3 YELLOW 4 DK GRN 5
LT BLUE 6 PINK 7 GREY 8 WHITE 9
EXAMPLE; 48-25085-088 SPECIFIES A 18 GA GRAY CONDUCTOR.

⚠1 FOR ADDITIONAL COLORS:
USE 48-25261 TO SPECIFY THE FOLLOWING ADDITIONAL SOLID COLORS:
DK BLUE 0 LT GRN 1 PURPLE 2 TAN 3
EXAMPLE; 48-25261-201 SPECIFIES A 14 GA LT GRN CONDUCTOR.

USE 48-25262 TO SPECIFY THE FOLLOWING COLOR WITH WHITE STRIPE:
BLACK 0 LT GRN 1 RED 2 TAN 3 PURPLE 4 DK GRN 5
LT BLUE 6 PINK 7
EXAMPLE; 48-25262-505 SPECIFIES A 10 GA DK GRN WITH WHITE STRIPE CONDUCTOR.

CHG	JOB NO	DATE	BY	REVISION
C	PA2042-79	06/05/97	DAJ	REVISED AND REDRAWN ON CATIA, ADDED ENGRG NOTES
D	PB3302-05	10/30/97	DAJ	ADDED -05X SPEC FOR 20 GA WIRE.

ADRIENNE CHILBERG

DRAWN	ERK	TITLE	DRAWING NUMBER	
APPRV	CAC	CABLE-LOW TENSION, TXL THERMOSET INSULATION	48-25085	
DATE	12/22/93	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3	CHG. LTR. D
CATIA ORIGINAL				

SPECIFICATIONS:

1. CABLE MUST CONFORM TO ALL APPLICABLE PROVISIONS OF SAE J1560, TYPE TXL GENERAL PURPOSE, CROSSLINKED POLYETHYLENE, INSULATED EXCEPT THE FOLLOWING:

   OIL ABSORPTION - USE ASTM OIL #2.
   - 10% MAXIMUM CABLE DIAMETER INCREASE.

   HEAT AGE TEST - TEMPERATURE 165°C.

2. CONDUCTORS: THE CONDUCTORS SHALL BE BARE, ANNEALED, COPPER WIRE. BUNCHED STRANDED IN ACCORDANCE WITH SAE J1560. NO SPLICING OF STRANDED CONDUCTOR AS A WHOLE IS PERMITTED. HOWEVER, THERE MAY BE SPLICES IN THE INDIVIDUAL STRANDS PROVIDED THE BUNDLE SIZE IS NOT ALTERED.

3. PROPERTIES:

   3.1 PROPERTIES OF THE CONDUCTOR

   3.1.1 THE CONDUCTORS SHALL MEET ALL REQUIREMENTS OF SAE J1560 WITH WIRE SIZE AND STRANDING.

   3.1.2 BEFORE STRANDING-THE WIRE MUST MEET ALL REQUIREMENTS OF ASTM B 3 FOR TENSILE STRENGTH, ELONGATION, RESISTIVITY, DIMENSION AND FINISH.

   3.2 PROPERTIES OF THE INSULATION

   3.2.1 PHYSICAL PROPERTIES OF THE INSULATION AS REMOVED FROM THE CABLE.

3.2.1.1 TENSILE STRENGTH	TEST METHOD	VALUE
ORIGINAL MPA (psi)	ASTM D412	10.34 (1500) MIN
HEAT AGE(% OF ORIGINAL TESTED VALUE)		80 MIN

   3.2.2 TESTING

   3.2.2.1 TENSILE STRENGTH AND ELONGATION TESTS WILL BE CONDUCTED WITH A CROSS-HEAD SPEED OF 500mm (20") PER MINUTE.

   3.2.2.2 ALL TENSILE AND ELONGATION TEST SAMPLES WILL BE CONDITIONED AT 23°C FOR AT LEAST 16 HOURS PRIOR TO TESTING.

   3.2.2.3 HEAT AGING CONSISTS OF CONDITIONING TEST SPECIMENS IN AN OVEN FOR 7 DAYS (168 HRS) AT 165°C (CORE REMOVED).

   3.3 CABLE PERFORMANCE REQUIREMENTS

   THE FINISHED CABLE SHALL MEET THE PREFORMANCE REQUIREMENTS OF SAE J1560, TYPE TXL.

CHG	JOB NO	DATE	BY	REVISION
C	PA2042-79	06/05/97	DAJ	REVISED AND REDRAWN IN CATIA, ADDED ENGRG NOTES.
D	PB3302-05	10/30/97	DAJ	ADDED -05X FOR 20 GA SPEC. SEE SHT 1.

DRAWN	ERK	TITLE	DRAWING NUMBER
APPRV	CAC	CABLE-LOW TENSION, TXL THERMOSET INSULATION	48-25085
DATE	12/22/93	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3 / CHG. LTR. D
CATIA ORIGINAL			

3.4 NO SEPARATORS ARE PERMITTED.

3.5 STRIP FORCE

WIRE SIZE (MM^2)	STRIP FORCE (NEWTONS) MIN	MAX
0.8	20	75

3.6 SOLDERABILITY

THE CORE OF THE FINISHED CABLE MUST REMAIN FREE OF CONTAMINANTS AND OXIDATION FOR SOLDERABILITY REASONS. THE FOLLOWING TEST WILL BE USED TO EVALUATE SOLDERABILITY OF THE XLPE CABLE:

CABLE STRIPPED APPROXIMATELY 25MM (1 IN) WILL BE IMMERSED 12MM (1/2 IN) INTO AN ACTIVATED ROSIN FLUX (ALPHA METALS #711 OR EQUIVALENT) FOR 3 SECONDS AND THEN IMMERSED FOR 2 SECONDS IN MOLTEN SOLDER 260°C ±5°C (500°F ±10°F). AN ACCEPTABLE SOLDERABILITY TEST SPECIMEN WILL EXHIBIT EVIDENCE OF SOLDER WETTING AND COMPLETE SAMPLE COVERAGE FOR THE IMMERSED LENGTH.

3.7 DIMENSIONS

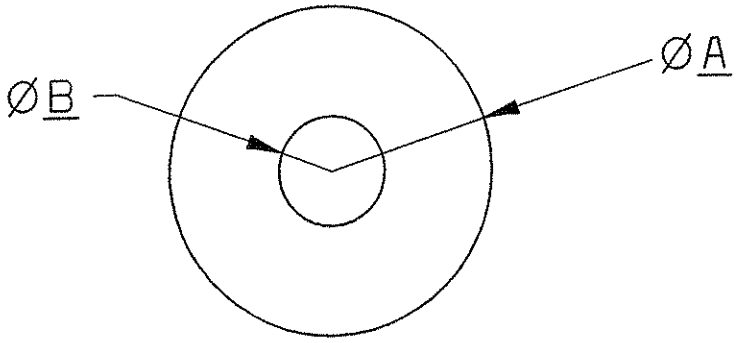
VARIATIONS IN INSULATION ALL THICKNESS ARE PERMISSIBLE IF DUE TO ECCENTRICITY. HOWEVER, THE MINIMUM WALL THICKNESS AT ANY CROSS-SECTION OF A TEST SPECIMEN SHALL NOT BE LESS THAN THE MINIMUM THICKNESS OF THE INSULATION SPECIFIED. THE MINIMUM WALL THICKNESS SHALL BE MEASURED WITH AN OPTICAL COMPARATOR.

CHG	JOB NO	DATE	BY	REVISION
C	PA2042-79	06/05/97	DAJ	REVISED AND REDRAWN IN CATIA, ADDED ENGRG NOTES
D	PB3302-05	10/30/97	DAJ	ADDED -05X SPEC FOR 20 GA WIRE. SEE SHT 1.

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	ERK	TUBE-ALUMINUM EXTRUDED	48-25098	
DATE	12/02/94	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. C
CATIA ORIGINAL				
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES				

SCOPE THIS SPECIFICATION IDENTIFIES 6063-T6 EXTRUDED ROUND ALUMINUM TUBING.

APPLICATION HEAVY DUTY STRUCTURE REQUIRING GOOD CORROSION RESISTANCE.



OD DIM A	ID DIM B	LBS/FT	FREIGHTLINER PART NUMBER
3.500	.656	10.93	48-25098-000
26 mm	.406	2.37	48-25098-001

C

SPECIFICATIONS:

1. MATERIAL: ALUMINUM 6063 T6

2. TOLERANCES PER ALUMINUM ASSOCIATION STANDARDS FOR EXTRUDED TUBE.

3. MINIMUM MECHANICAL PROPERTIES:

TENSILE (KSI)	YIELD (KSI)	ELONG. % IN 2"
30	25	8

B

CHG	JOB NO	DATE	BY	REVISION
-	P2916J-01	12/02/94	DAJ	INITIAL LOAD
B	PA2042-76	03/11/97	DAJ	NOTE 3:30 WAS 38, 25 WAS 35 & 8 WAS 10.
C	P2D210-39	04/15/98	DAJ	ADDED -001.

DRAWN	LFB	TITLE	DRAWING NUMBER	
APPRV	DAJ	PLATE-STEEL HSLA, 100XF	48-25096	
DATE	10/18/99			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. B

SCOPE: THIS SPECIFICATION IDENTIFIES HIGH STRENGTH/LOW ALLOY, HOT ROLLED STRUCTURAL STEEL PLATE, AISI 100XF.

APPLICATION: WHERE HIGH STRENGTH AND LIGHT WEIGHT ARE REQUIRED.

SPECIFICATION NUMBERS:

"T" THICKNESS (INCHES)	WT LB/FT^2		FREIGHTLINER SPECIFICATION NUMBERS
3/16	7.64		48-25096-188
1/4	10.20		48-25096-250
5/16	12.76		48-25096-312

SPECIFICATIONS:

1. PLATE HEREIN DESCRIBED SHALL MEET OR EXCEED CHEMICAL, PHYSICAL, AND DIMENSIONAL REQUIREMENTS OF AISI 100XF.

2. MECHANICAL PROPERTIES:

B

ULTIMATE TENSILE STRENGTH KSI (MIN)	YIELD STRENGTH KSI (MIN)	ELONGATION % IN 2 INCHES (MIN)	BEND RADIUS*
110	100	15	1.6T

* APPLIES TO BOTH THE TRANSVERSE AND LONGITUDINAL GRAIN OF DIRECTION.

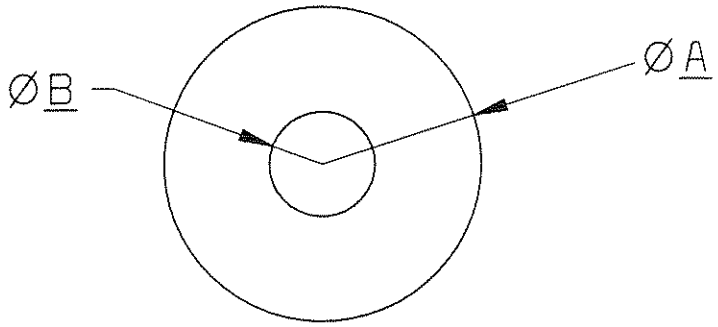
CHG	JOB NO	DATE	BY	REVISION
B	PA2042-97	10/18/99	LFB	REVISED AND REDRAWN IN CATIA. ADDED BEND RADIUS.

48-25098 , D , , TUBE-ALUMINUM

DRAWN	DAJ	TITLE TUBE-ALUMINUM EXTRUDED	DRAWING NUMBER 48-25098
APPRV	ERK		
DATE	12/02/94	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. D
CATIA ORIGINAL			
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES			

SCOPE: THIS SPECIFICATION IDENTIFIES 6063-T6 EXTRUDED ROUND ALUMINUM TUBING.

APPLICATION: HEAVY DUTY STRUCTURE REQUIRING GOOD CORROSION RESISTANCE.



OD DIM A	ID DIM B	LBS/FT	FREIGHTLINER PART NUMBER
3.500	.656	10.93	48-25098-000
26 mm	.406	.814	48-25098-001

D,C

SPECIFICATIONS:

1. MATERIAL: ALUMINUM 6063 T6

2. TOLERANCES PER ALUMINUM ASSOCIATION STANDARDS FOR EXTRUDED TUBE.

3. MINIMUM MECHANICAL PROPERTIES:

TENSILE (KSI)	YIELD (KSI)	ELONG. % IN 2"
30	25	8

B

CHG	JOB NO	DATE	BY	REVISION
-	P2916J-01	12/02/94	DAJ	INITIAL LOAD
B	PA2042-76	03/11/97	DAJ	NOTE 3:30 WAS 38, 25 WAS 35 & 8 WAS 10.
C	P2D210-39	04/15/98	DAJ	ADDED -001.
D	PA2042-97	10/14/99	LFB	.814 WAS 2.37.

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	TAPE DOUBLE-SIDED ADHESIVE	48-25104	
DATE	04/08/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. K

SCOPE: THIS SPECIFICATION IDENTIFIES A HIGH DENSITY, CLOSED CELL FOAM MOUNTING TAPE WITH HIGH PERFORMANCE ACRYLIC ADHESIVE ON BOTH SIDES.

APPLICATION: USE FOR GENERAL INTERIOR AND EXTERIOR MOUNTING, VIBRATION DAMPENERS, SOUND BAFFLES AND WEATHERSTRIPPING WHERE HIGH STRENGTH ADHESIVE AND RESISTANCE TO WEATHERING, FUNGI AND OXIDATION, UV LIGHT AND EXTREME TEMPERATURES ARE REQUIRED.

WIDTH	THICKNESS	MANUFACTURER'S P/N	FREIGHTLINER PART NUMBER
1.000	0.020	NORTON V2020	48-25104-000
	0.025	3M SCOTCH VHB 4929	
	0.030	NORTON V2030	48-25104-002
0.500	0.062	3M 4956/NORTON V2062	48-25104-003
2.000	0.020	NORTON V2020H	48-25104-004
0.750	0.005	3M A-60 969	48-25104-005
4.000	0.005	3M A-60 950	48-25104-006
1.000	0.045	3M Y-4218	48-25104-007
		3M SCOTCH VHB 4950	48-25104-008
0.750	0.005	3M F-9469PC	48-25104-009

K

ENGINEERING NOTES:

LISTED IN THE MANUFACTURER'S P/N COLUMN ABOVE ARE THE TWO ALTERNATE PARTS APPROVED BY ENGINEERING.

CHG	JOB NO	DATE	BY	REVISION
K	P05010-01	04/08/98	DAJ	REVISED AND REDRAWN IN CATIA, ADDED -008 AND -009.

DRAWN	ERK	TITLE CARPET 22 OZ NYLON	ITEM NUMBER 48-25109
APPRV	REW		
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4

SCOPE: THIS SPECIFICATION IDENTIFIES A CAB INTERIOR CARPET.

APPLICATION: A 87.5% BCF NYLON, 12.5% BCF POLYPROPYLENE CUT PILE THAT IS SUITABLE FOR USE AS AUTOMOTIVE TRIM, FLOOR COVERING AND OTHER APPLICATIONS AS APPROVED.

SPECIFICATION NUMBERS:

COLOR	PATTERN AND/OR COLOR NO.		FREIGHTLINER SPECIFICATION NUMBER
MOUNTAIN BLACKBERRY			48-25109-200
LAGOON GREEN			48-25109-300
NIGHT SKY BLUE			48-25109-400
MESA TAN			48-25109-500
VOLCANO GRAY			48-25109-600

NOTES:

1. BACKCOATING: LATEX
2. 22 OZ./SQUARE YARD

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	MOUNTAIN BLACKBERRY WAS VINEYARD RED
				LAGOON GREEN WAS PIEDMONT GREEN
B	P00731-01	03/21/97	MM	CHANGED CARPET CONSTRUCTION, DELETE VENDOR

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	REW	CARPET 22 OZ NYLON	48-25109
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4

GENERAL REQUIREMENTS

PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY (MOLDED OR OTHERWISE FABRICATED).

CONSTRUCTION REQUIREMENTS

PILE YARN

YARN TYPE,.....87.5% BCF NYLON
.....12.5% BCF POLYPROPYLENE

YARN SIZE.....NYLON BCF - 1405/1 DENIER
.....PP BCF - 2000/1 DENIER, SD BLACK

TWIST AND DIRECTION.....0.0

TUFTING FABRIC

THE WOVEN POLYPROPYLENE FABRIC WITH FLW CAP SHALL BE UNIFORM IN CONSTRUCTION AND SHALL HAVE A MASS BETWEEN 105 G/SQ M. (3.1 OZ/SQ YD) AND 128 G/SQ M (3.8 OZ/SQ YD).

BACKCOATING TYPE

DASH NUMBER -X00.....LATEX

DYE METHOD.....PIECE DYE

FINISHED CARPET

FINISHED WIDTH.....72 INCHES

NEEDLE GAUGE.....2.5 MM(1/10 IN.) CUT

FINISHED ROW COUNT
OF PILE.....10.0 ROWS/IN.OR 39.4 ROWS/10 CM

FINISHED STITCH COUNT
OF PILE.....12.0 STITCHES/IN.(47.2 STITCHES/10 CM)

HEIGHT OF PILE(MIN.).....6.4 MM (0.250 IN.)

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	SEE SHEET 1 OF 4
B	P00731-01	03/21/97	MM	CHANGED PILE YARN SPECS

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	REW	CARPET 22 OZ NYLON	48-25109
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4

GENERAL REQUIREMENTS (CONTINUED)

FINISHED MASS ..... -X00

	G/SQ M	OZ/SQ YD
PILE	542	(22)
BACKING FABRIC*	102	(3.42)
BACKING COATING	271	(9)
TOTAL*	915	(34.42) ±10%

* HEAVIER BACKING FABRIC MAY BE SPECIFIED FOR SOME APPLICATIONS.

PERFORMANCE REQUIREMENTS

MASS -X00 ..... 1.16 KG/SQ M (34.42 OZ/SQ YD) ±10%

TENSILE STRENGTH ..... MD(WARP)...MINIMUM 445 N (100 LB)
AMD(FILLING)...MINIMUM 356 N (80 LB)

TEAR RESISTANCE ..... MD (ACROSS WARP)...MINIMUM 36 N (8 LB)
AMD (ACROSS FILLING)...MINIMUM 36 N (8 LB)

SHRINKAGE ..... MD(WARP)...MAXIMUM 1.0%
AMD (FILLING)...MAXIMUM 1.0%

WEAR RESISTANCE-5000 CYCLES (TABER ABRADER, H18 WHEELS 1000 G LOAD) ..... THE CARPET SURFACE SHALL NOT BE WORN DOWN TO THE TOP SURFACE OF THE BACKING FABRIC FOR MORE THAN 10% OF THE ABRADED AREA.

RESISTANCE TO CROCKING-AATCC.RATING ..... DRY..MINIMUM 2.5
WET..MINIMUM 2.5

RESISTANCE TO BLEED-AATCC....RATING ..... MINIMUM 2.5

FADE RESISTANCE** (80 STANDARD FADEOMETER HOURS) ..... NO FADE OR COLOR CHANGE LOWER THAN THE RATING 3-4 ON THE ISO GRAY SCALE FOR EVALUATING CHANGE IN COLOR.

** FADE RESISTANCE TESTS ARE REQUIRED ONLY FOR AREAS EXPOSED TO SUNLIGHT.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	SEE SHEET 1 OF 4
B	P00731-01	03/21/97	MM	SEE SHEET 1 AND 2 OF 4

DRAWN	ERK	TITLE CARPET 22 OZ NYLON	ITEM NUMBER 48-25109
APPRV	REW		
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4

METHODS OF TESTING

TOTAL MASS.....ASTM D418, SECTION 7, (SPECIMEN SIZE - 12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD, AVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED 2"/MIN, READ PEAK LOAD, AVERAGE OF 5 TESTS)

SHRINKAGE, MAX.....SAE J883 (REMEASURE AFTER 24 HOURS AT STANDARD CONDITIONS)

WEAR RESISTANCE.....TABER ABRADER (H-18 WHEEL, 1000 G LOAD, 5000 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

RESISTANCE TO BLEED.....CUSTOMER TEST:
#1 MUTIFIBER CLOTH- ACETATE COTTON-NYLON-SILK-VISCOSE-WOOL. DISH WITH MULTIFIBER CLOTH, CARPET FACE DOWN RUNNING OPPOSITE TO CLOTH, 5 GLASS PLATES ON TOP, 25CC WATER, SOAK FOR 15 MINUTES, SQUEEZE OUT EXCESS WATER, THEN PUT IN LARGER OVEN FOR 4 HOURS, LETTING THEM IN DISHES.

FADE RESISTANCE.....AATCC 16E, XENON ARC

FLAMMABILITY.....FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 302.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	SEE SHEET 1 OF 4
B	P00731-01	03/21/97	MM	SEE SHEET 1 AND 2 OF 4

DRAWN	ERK	TITLE CARPET 16 OZ NYLON	ITEM NUMBER 48-25110
APPRV	REW		
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4

SCOPE: THIS SPECIFICATION IDENTIFIES A CAB INTERIOR CARPET.

APPLICATION: A 87.5% BCF NYLON, 12.5% BDF POLYPROPYLENE, CUT PILE CARPET THAT IS SUITABLE FOR USE AS AN AUTOMOTIVE TRIM, FLOOR COVERING AND OTHER APPLICATIONS AS APPROVED.

SPECIFICATION NUMBERS:

COLOR	PATTERN AND/OR COLOR NO.		FREIGHTLINER SPECIFICATION NUMBER
MOUNTAIN BLACKBERRY			48-25110-200
LAGOON GREEN			48-25110-300
NIGHT SKY BLUE			48-25110-400
MESA TAN			48-25110-500
VOLCANO GRAY			48-25110-600

NOTES:

1. BACKCOATING: LATEX 9.0 OZ.
2. 16 OZ./SQUARE YARD

COLOR	PATTERN AND/OR COLOR NO.		FREIGHTLINER SPECIFICATION NUMBER
MOUNTAIN BLACKBERRY			48-25110-201
LAGOON GREEN			48-25110-301
NIGHT SKY BLUE			48-25110-401
MESA TAN			48-25110-501
VOLCANO GRAY			48-25110-601

NOTES:

1. BACKCOATING: MOLDABLE LATEX
2. 16 OZ./SQUARE YARD

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	MOUNTAIN BLACKBERRY WAS VINEYARD RED
				LAGOON GREEN WAS PIEDMONT GREEN
B	P00731-01	03/21/97	MM	CHANGED CARPET CONSTRUCTION, BACKING

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	REW	CARPET 16 OZ NYLON	48-25110
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4

GENERAL REQUIREMENTS

PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY (MOLDED OR OTHERWISE FABRICATED).

CONSTRUCTION REQUIREMENTS

PILE YARN

YARN TYPE.....87.5% BCF NYLON
.....12.5% BCF POLYPROPYLENE

YARN SIZE.....BCF NYLON 1405/1 DENIER
.....BCF PP 2000/1 DENIER, SD BLACK

TWIST AND DIRECTION.....0.0

TUFTING FABRIC

THE WOVEN POLYPROPYLENE FABRIC WITH FLW CAP SHALL BE UNIFORM IN CONSTRUCTION AND SHALL HAVE A MASS BETWEEN 105 G/SQ M. (3.1 OZ/SQ YD) AND 128 G/SQ M (3.8 OZ/SQ YD).

BACKCOATING TYPE

DASH NUMBER -X00.....LATEX

DASH NUMBER -X01.....MOLDABLE LATEX

DYE METHOD.....PIECE DYE

FINISHED CARPET

FINISHED WIDTH.....60 INCHES

NEEDLE GAUGE.....2.5MM (1/10 IN.) CUT

FINISHED ROW COUNT
OF PILE.....10.0 ROWS/IN.OR 39.4 ROWS/10 CM

FINISHED STITCH COUNT
OF PILE.....10.0 STITCHES/IN.(39.4 STITCHES/10 CM)

HEIGHT OF PILE(MIN.).....4.8 MM (0.1875 IN.)

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	SEE SHEET 1 OF 4
B	P00731-01	03/21/97	MM	CHANGE PILE YARN AND BACKCOATING

DRAWN	ERK	TITLE CARPET 16 OZ NYLON	ITEM NUMBER 48-25110
APPRV	REW		
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4

GENERAL REQUIREMENTS (CONTINUED)

FINISHED MASS	-X00		-X01	
	G/SQ M	OZ/SQ YD	G/SQ M	OZ/SQ YD
PILE	XXX	(16.0)	XXX	(16.0)
BACKING FABRIC*	102	(3.42)	XXX	(3.42)
BACKING COATING	271	(9.0)	XXX	(13.0)
TOTAL*	915	(28.42)±10%	XXX	(32.42)±10%

* HEAVIER BACKING FABRIC MAY BE SPECIFIED FOR SOME APPLICATIONS.

PERFORMANCE REQUIREMENTS

TENSILE STRENGTH.....MD(WARP)...MINIMUM 445 N (100 LB)
AMD(FILLING)...MINIMUM 356 N (80 LB)

TEAR RESISTANCE.....MD (ACROSS WARP)...MINIMUM 36 N (8 LB)
AMD (ACROSS FILLING)...MINIMUM 36 N (8 LB)

SHRINKAGE.....MD(WARP)...MAXIMUM 1.0%
AMD (FILLING)...MAXIMUM 1.0%

WEAR RESISTANCE-1600 CYCLES (TABER ABRADER, H18 WHEELS 1000 G LOAD).....THE CARPET SURFACE SHALL NOT BE WORN DOWN TO THE TOP SURFACE OF THE BACKING FABRIC FOR MORE THAN 10% OF THE ABRADED AREA.

RESISTANCE TO CROCKING-AATCC.RATING...DRY..MINIMUM 2.5
WET..MINIMUM 2.5

RESISTANCE TO BLEED-AATCC....RATING.....MINIMUM 2.5

FADE RESISTANCE**.....NO FADE OR COLOR CHANGE LOWER THAN THE RATING (80 STANDARD FADEOMETER HOURS) 3-4 ON THE ISO GRAY SCALE FOR EVALUATING CHANGE IN COLOR.

** FADE RESISTANCE TESTS ARE REQUIRED ONLY FOR AREAS EXPOSED TO SUNLIGHT.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	SEE SHEET 1 OF 4
B	P00731-01	03/21/97	MM	SEE SHEET 1 AND 2 OF 4

DRAWN	ERK	TITLE CARPET 16 OZ NYLON	ITEM NUMBER 48-25110
APPRV	REW		
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4

METHODS OF TESTING

TOTAL MASS.....ASTM D418, SECTION 7, (SPECIMEN SIZE - 12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD, AVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED 2"/MIN, READ PEAK LOAD, AVERAGE OF 5 TESTS)

SHRINKAGE, MAX.....SAE J883 (REMEASURE AFTER 24 HOURS AT STANDARD CONDITIONS)

WEAR RESISTANCE.....TABER ABRADER (H-18 WHEEL, 1000 G LOAD, 1600 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

RESISTANCE TO BLEED.....CUSTOMER TEST:
#1 MUTIFIBER CLOTH- ACETATE COTTON-NYLON-SILK-VISCOSE-WOOL. DISH WITH MULTIFIBER CLOTH, CARPET FACE DOWN RUNNING OPPOSITE TO CLOTH, 5 GLASS PLATES ON TOP, 25CC WATER, SOAK FOR 15 MINUTES, SQUEEZE OUT EXCESS WATER, THEN PUT IN LARGER OVEN FOR 4 HOURS, LETTING THEM IN DISHES.

FADE RESISTANCE.....AATCC 16A, CARBON ARC

FLAMMABILITY.....FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 302.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	SEE SHEET 1 OF 4
B	P00731-01	03/21/97	MM	SEE SHEET 1 AND 2 OF 4

DRAWN	ERK	TITLE CARPET 16 OZ. POLYPROPYLENE	ITEM NUMBER 48-25111
APPRV	REW		
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4

SCOPE: THIS SPECIFICATION IDENTIFIES A CAB INTERIOR CARPET.

APPLICATION: A 100% BCF POLYPROPYLENE CUT PILE CARPET THAT IS SUITABLE FOR USE AS AUTOMOTIVE TRIM, FLOOR COVERING AND OTHER APPLICATIONS AS APPROVED..

SPECIFICATION NUMBERS:

COLOR			FREIGHTLINER SPECIFICATION NUMBER
	PATTERN AND/OR COLOR NO.		
MARINA BLACK W/BLUE GREEN DOT			48-25111-100
TERRAIN BLACK W/GRAY PLUM DOT			48-25111-200

NOTES:
1. BACKCOATING: LATEX - 9.0 OZ.
2. 16.0 OZ./SQUARE YARD

SPECIFICATION NUMBERS:

COLOR			FREIGHTLINER SPECIFICATION NUMBER
	PATTERN AND/OR COLOR NO.		
MARINA BLACK W/BLUE GREEN DOT			48-25111-101
TERRAIN BLACK W/GRAY PLUM DOT			48-25111-201

NOTES:
1. BACKCOATING: MOLDABLE LATEX
2. 16.0 OZ./SQUARE YARD

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P00731-01	03/21/97	MM	REMOVED VENDOR NAME, CHANGE BACKCOATING

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	REW	CARPET 16 OZ. POLYPROPYLENE	48-25111
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4

GENERAL REQUIREMENTS POLYPROPYLENE CONSTRUCTION

PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY (MOLDED OR OTHERWISE FABRICATED).

CONSTRUCTION REQUIREMENTS

PILE YARN:

- YARN TYPE.....100% SOLUTION DYED BCF POLYPROPYLENE.
- YARN SIZE.....2200 DENIER BCF
- YARN WEIGHT PER SQ YD...16.0 OUNCE

TUFTING FABRIC:

- TYPE.....FLW WOVEN POLYPROPYLENE
- WEIGHT.....3.42 OZ. MINIMUM

BACKCOATING TYPE:

- DASH NUMBER X00.....9.0 OZ. LATEX
- DASH NUMBER X01.....MOLDABLE LATEX

DYE METHOD..... MELT DYE OR SOLUTION DYED YARN.

FINISHED CARPET

- FINISHED WIDTH.....60 INCHES
- NEEDLE GAUGE.....1/10 INCH
- STITCHES PER INCH.....11 ±10%
- FINISHED ROW COUNT.....10.0 ±10%
- HEIGHT OF PILE(MIN.)....4/32 INCH

FLAMMABILITY..... MEETS OR EXCEEDS FEDERAL MOTOR VEHICLE SAFETY STANDARD #302.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P00731-01	03/21/97	MM	CHANGE BACKCOATING MATERIAL

DRAWN	ERK	TITLE CARPET 16 OZ. POLYPROPYLENE	ITEM NUMBER 48-25111
APPRV	REW		
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4

TYPICAL PROPERTIES:

AVERAGE TENSILE STRENGTH-ASTM D 3574.....LENGTH 133 LBS.
.....WIDTH 167 LBS.

AVERAGE TEAR STRENGTH-ASTM D 2261.....LENGTH 28.4 LBS.
.....WIDTH 49.8 LBS.

WEAR RESISTANCE-TABER ABRASION-ASTM D 3884 1000 GRAM LOAD:

NUMBER OF CYCLES UNTIL A PORTION
OF PRIMARY BACKING IS VISIBLE: .....1600.

AVERAGE TUFT BIND-ASTM D 1335.....3.3 LBS.

SHRINKAGE:

MD(WARP).....MAXIMUM 1.0%
AMD(FILL).....MAXIMUM 1.0%

RESISTANCE TO CROCKING-AATCC 165:

DRY:.....MINIMUM 4
WET:.....MINIMUM 4

COLORFASTNESS TO WATER-AATCC 107:

MINIMUM 4

COLORFASTNESS TO LIGHT-AATCC 16:

.....MINIMUM RATING OF 4 ON AATCC OR ISO 105/1 PART 2 GREY SCALE
.....AFTER FOLLOWING HOURS OF EXPOSURE:

.....16A CARBON ARC:...400 HRS.
.....16E XENON ARC:....465 HRS.

.....FOLLOWING THE REQUIRED HOURS OF EXPOSURE, ANY SIGNIFICANT SHEDDING
.....OF FACE YARN INDICATING FIBER DEGRADATION/EMBRITTLEMENT SHALL
.....CONSTITUTE A FAILURE EVEN IF THE COLOR IS STILL SATISFACTORY.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P00731-01	03/21/97	MM	SEE SHEETS 1 AND 2 OF 4

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	REW	CARPET 16 OZ. POLYPROPYLENE	48-25111
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4

METHODS OF TESTING

TOTAL MASS.....ASTM D418 (SECTION 7)
.....(SPECIMEN SIZE- 12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD)
.....(AVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED
.....2"/MIN, READ PEAK LOAD,
.....AVERAGE OF 5 TESTS)

SHRINKAGE, MAX.....SAE J883 (REMEASURE AFTER 24
.....HOURS AT STANDARD CONDITIONS)

WEAR RESISTANCE.....TABER ABRADER (H-18 WHEEL;
.....1000 GRAM LOAD, 1600 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

RESISTANCE TO BLEED.....CUSTOMER TEST;
.....#1 MULTIFIBER CLOTH- ACETATE
.....COTTON-NYLON-SILK-VISCOSE-WOOL.
.....DISH WITH MULTIFIBER CLOTH,
.....CARPET FACE DOWN RUNNING OPPOSITE
.....TO CLOTH, 5 GLASS PLATES ON TOP,
.....25CC WATER, SOAK FOR 15 MINUTES,
.....SQUEEZE OUT EXCESS WATER, THEN
.....PUT IN LARGER OVEN FOR 4 HOURS,
.....LETTING THEM IN DISHES.

FADE RESISTANCE.....AATCC 16A, CARBON ARC

FLAMMABILITY.....FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 302.

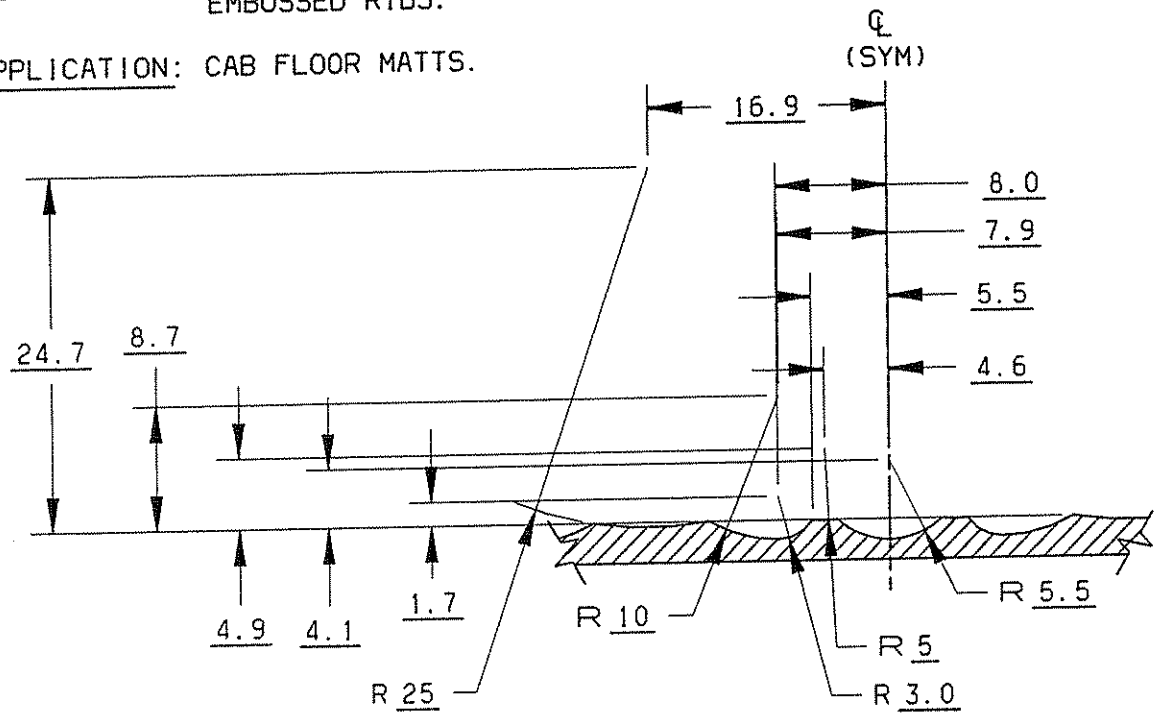
CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P00731-01	03/21/97	MM	SEE SHEETS 1 AND 2 OF 4

DRIENNE CHILBERG

DRAWN	ERK	TITLE	DRAWING NUMBER	
APPRV	REW	MATT - VINYL EMBOSSED RIB	48-25115	
DATE	06/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. D
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES SOLID VINYL MATTING WITH EMBOSSED RIBS.

APPLICATION: CAB FLOOR MATTS.



THICKNESS (INCHES) ±.015	MANUFACTURER		FREIGHTLINER SPECIFICATION NUMBER
	APACHE	BILTRITE	
1/8	TUFF STUFF ™ STND. EMBOSS	NU-TRED	48-25115-001

ENGINEERING NOTES:

1. MATERIAL: VINYL
2. DUROMETER: 80±5
3. NOMINAL WEIGHT: 95 OZ./SQ. YD.
4. COLOR: SILHOUETTE GRAY PER 49-00091-003
5. TENSILE STRENGTH: APPROX 625±50 PER ASTM D638M OR 100 PSI MIN PER ASTM D624C/D1004
6. MUST PASS FMVSS #302, FLAMABILITY OF INTERIOR MATERIALS.
7. DIMENSIONS TOLERANCE PER RMA-A3.

CHG	JOB NO	DATE	BY	REVISION
-	P2A265-17	06/13/95	ERK	INITIAL RELEASE
A	P2A265-42	10/12/95	ERK	REVISED COLOR AND PRODUCT NAME.
B	PA2042-76	12/12/96	FHC	RVSD SKETCH AND BILTRITE WAS HERMITAGE.
C	PA2042-78	08/08/97	DAJ	NOTE 4 WAS VOLCANO DARK GRAY (MUNSELL #N1.25).
D	PA2042-83	03/20/98	DAJ	SILHOUETTE GRAY WAS VOLCANO GRAY.

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	REW	FABRIC-VINYL COATED 29.75 OZ. PER SQUARE YARD	48-25120
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3

SCOPE: THIS SPECIFICATION COVERS THE REQUIREMENTS FOR VINYL COATED FABRICS.

APPLICATION: FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SHALLOW DRAW MOLDED TRIM PANELS OR OTHER PARTS WHICH MAY BE SUBJECT TO SEVERE SERVICE.

SPECIFICATION NUMBERS:

PATTERN	COLOR	MANUFACTURER'S NUMBER MORBERN	FREIGHTLINER SPECIFICATION NUMBER
MELLOHIDE 150 SL (ELK)	BURGUNDY	8000-L23-79460	48-25120-000
	QUARRY GRAY	8000-L23-96550	48-25120-100
	MOUNTAIN BLACKBERRY	8000-L23-78940	48-25120-200
	LAGOON GREEN	8000-L23-35900	48-25120-300
	NIGHT SKY BLUE	8000-L23-29990	48-25120-400
	MESA TAN	8000-L23-80157	48-25120-500
	VOLCANO GRAY	8000-L23-96530	48-25120-600
	SLATE GRAY	8000-L23-96540	48-25120-700
	SHADOW GRAY	8000-L23-96600	48-25120-800
(NON-PERFORATED)	HARRIS RED	7823K-77-77850	48-25120-900
MELLOHIDE 150 SL (DIAMOND)	QUARRY GRAY	7990-L22-96550	48-25120-110
	MOUNTAIN BLACKERRY	7990-L22-78940	48-25120-210
	LAGOON GREEN	7990-L22-35900	48-25120-310
	NIGHT SKY BLUE	7990-L22-29990	48-25120-410
	MESA TAN	7990-L22-80157	48-25120-510
(PERFORATED)	VOLCANO GRAY	7990-L22-96530	48-25120-610

CHG	JOB/RLSE NO	DATE	BY	REVISION
A	P2A262-H4	09/15/95	RMS	MOUNTAIN BLACKBERRY WAS VINEYARD RED
				LAGOON GREEN WAS PIEDMONT GREEN
B	P2B270-12	06/12/96	DAJ	ADDED -800 AND MFR'S PART NUMBERS.
C	705036-01	01/21/97	DAJ	ADDED -900 AND MFR'S PART NUMBERS.
D	937437-06	02/06/974	DAJ	ADDED -000 AND MFR'S PART NUMBERS.

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	REW	FABRIC-VINYL COATED 29.75 OZ. PER SQUARE YARD	48-25120
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3

ENGINEERING REQUIREMENTS:

1.0 GENERAL REQUIREMENTS

1.1 THE KNIT FABRIC SHALL BE MADE OF SUITABLE MATERIAL TO SATISFY THE REQUIREMENTS IN SECTION 2.0.

1.2 THE COVERING SHALL BE PLASTICIZED AND PIGMENTED, EXPANDED POLYVINYL CHLORIDE RESIN, OR COPOLYMERS THEREOF, SO AS TO BE OF THE PROPER AND UNIFORM GAGE, FLEXIBLE, FREE FROM TACKINESS AND SUITABLE HAND.

1.3 THE COLOR, GRAIN AND FINISH SHALL MATCH THE APPROVED MASTER SAMPLE.

2.0 SPECIFIC REQUIREMENTS

PROPERTY	TEST METHOD	REQUIREMENTS
WEIGHT, (OZ,SQ/YD)	ASTM D751	28.25±1.5
THICKNESS, TOTAL INCH	ASTM D751	.023±.003
THICKNESS, SKIN, MINIMUM INCH		.008
BREAKING STRENGTH LBS., MINIMUM WARP/FILL	CFFA-17 GRAB METHOD	85/65
TEAR STRENGTH LBS., MINIMUM WARP/FILL	CFFA-16C TRAPEZOID METHOD	16/16
SEAM STRENGTH, LBS. WARP/FILL	ASTM D1683	70/50
STRETCH, %, MINIMUM WARP/FILL	CFFA-15	10/75

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	SEE SHEET 1 OF 3
B	P2B270-12	06/12/96	DAJ	SEE SHEET 1 OF 3
C	705036-01	01/21/97	DAJ	SEE SHEET 1 OF 3
D	937437-06	02/06/97	DAJ	SEE SHEET 1 OF 3

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	REW	FABRIC-VINYL COATED 29.75 OZ. PER SQUARE YARD	48-25120
DATE	07/13/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3

PROPERTY	TEST METHOD	REQUIREMENTS
SET, %, MAXIMUM WARP/FILL	CFFA-15	5/30
COATING ADHESION LBS., MINIMUM WARP/FILL	CFFA-3	3/3
FLAMMABILITY (6)	SAE J369	PASS(SE)
COLD CRACKING RESISTANCE	SAE J323	-30° F
BLOCKING, MAXIMUM RATING	CFFA-4	2
CROCKING RESISTANCE (WET & DRY)	CFFA-7	GOOD
ABRASION RESISTANCE MAX. WT. LOSS (500 REV./500G./H18)	FED. STD. 191A METHOD 5306 TABOR	0.100G(NOTE 5)

NOTES:

1. ASTM = AMERICAN SOCIETY FOR TESTING AND MATERIALS

2. CFFA = CHEMICAL FABRICS AND FILM ASSOCIATION

3. SAE = SOCIETY OF AUTOMOTIVE ENGINEERS

4. FED STD = FEDERAL TEST METHOD STD. NO. 191A

5. NO VISIBLE LOSS OF COLOR OR GRAIN PATTERN IS ALLOWED

(6) THIS MATERIAL MUST ALSO PASS FMVSS NO. 302, FLAMMABILITY OF INTERIOR MATERIALS.

3.0 APPROVED SOURCE

SUPPLIERS SHALL HAVE THEIR MATERIAL TESTED IN ACCORDANCE WITH THIS SPECIFICATION BY AN INDEPENDENT LABORATORY AND THE RESULTS SUBMITTED TO FREIGHTLINER PURCHASING.

NO SHIPMENTS SHALL BE MADE BY A NEW SOURCE UNTIL THE MATERIAL HS BEEN APPROVED BY FREIGHTLINER ENGINEERING.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A262-B6	07/13/95	ERK	INITIAL RELEASE
A	P2A262-H4	09/15/95	RMS	SEE SHEET 1 OF 3
B	P2B270-12	06/12/96	DAJ	SEE SHEET 1 OF 3
C	705036-01	01/21/97	DAJ	SEE SHEET 1 OF 3
D	937437-06	02/06/97	DAJ	SEE SHEET 1 OF 3

DRAWN	ERK	TITLE	ITEM NUMBER
APPRV	MJP	ADHESIVES-STRUCTURAL TWO COMPONENT	48-25123
DATE	06/30/95	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1

SCOPE: THIS SPECIFICATION IDENTIFIES VARIOUS ADHESIVES TWO COMPONENT STRUCTURAL ADHESIVE.

APPLICATION: INTENDED FOR USE IN THE BONDING OF A VARIETY OF MATERIALS AS SPECIFIED.

APPLICATION	PRODUCT	COLOR	MANUFACTURER/PART NUMBER	FREIGHTLINER SPECIFICATION NUMBER
FIBER GLASS	ADHESIVE	-	ASHLAND PLIOGRIP 7300	48-25123-001
	REACTANT	-	ASHLAND PLIOGRIP 7300	48-25123-101
PLASTICS	ADHESIVE	AMBER	ITW PLEXUS A0420FS	48-25123-003
	REACTANT	-	ITW PLEXUS A0420FS	48-25123-103
ALUMINUM ALLOY	ADHESIVE	BLACK	ESSEX BETAMATE 73312	48-25123-004
	HARDENER	BEIGE	ESSEX BETAMATE 73313	48-25123-104
	KIT	-	ESSEX BETAMATE 73313 KIT	48-25123-504
PLASTICS	ADHESIVE	WHITE	ITW PLEXUS MA 310	48-25123-005
	ACTIVATOR	-	ITW PLEXUS MA 310	48-25123-105

ENGINEERING NOTES:

1. PROPERTIES:

	-001	-003	-004	-005
BASE ADHESIVE	-	ACRYLIC	EPOXY	ACRYLIC
MIX RATIO (BY VOL.)	-	10:1	-	-
TYPICAL MIXED VISC. (CPS)	-	160-180,000 NON SAGGING GEL	-	-
WORK LIFE (MIN)	-	1.5	-	-
FIXTURE TIME (MIN)	-	3 - 4	-	-
TENSILE SHEAR (PSI)	-	>2000	-	-
PEEL STRENGTH (PSI)	-	15 - 20	-	-
ELONGATION (%)	-	100 - 140	-	-
FLASH POINT (°F)	-	-	200	-

2. ENGINEERING HAS APPROVED LORD VERSILOK 406/#17 AS A SUITABLE ALTERNATE FOR ITW PLEXUS A0420FS.

3. MISSING INFORMATION OR INFORMATION NOT APPLICABLE ARE SHOWN AS (-). ADDITIONAL INFORMATION WILL BE ADDED AS THEY COME AVAILABLE.

CHG	JOB/RLSE NO	DATE	BY	REVISION
-	P2A270-49	06/30/95	ERK	INITIAL RELEASE
A	PK0447-28	10/18/95	DAJ	REVISED AND REDRAWN, ADDED -001,101,103,004 & 104
B	P2A220-C0	01/18/96	DAJ	ADDED -504
C	P00074-26	07/15/98	DAJ	ADDED -005 AND -105

DRAWN	ERK	TITLE	DRAWING NUMBER	
APPRV	RMR	SLEEVE HEAT PROTECTIVE	48-25127	
DATE	10/09/95			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. B

UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES

SCOPE: THIS SPECIFICATION IDENTIFIES 'THERMFLEX' PROTECTIVE OVERSLEEVE.

APPLICATION: FOR THERMAL PROTECTION FOR TUBING.

I.D. NOM. (MM)	SUPPLIER	FREIGHTLINER PART NUMBER
	BENTLEY-HARRIS MFG	
12.7	035320013	48-25127-013
19.1	035520013	48-25127-019
25.4	036020013	48-25127-025
31.8	036220013	48-25127-031

B

ENGINEERING NOTES:

1. CONTINUOUS TEMPERATURE RATING: 540°C (1000°F)

2. COLOR: BLACK

CHG	JOB NO	DATE	BY	REVISION
-	PA2157-17	10/09/95	ERK	INITIAL RELEASE
A	PA2161-A5	04/21/97	DAJ	ADDED -025
B	P06348-01	09/10/98	DAJ	ADDED -031

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	COOLANT/ANTIFREEZE SCA PRE-CHARGED, HEAVY DUTY	48-25134	
DATE	03/23/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. D

SCOPE: THIS SPECIFICATION IDENTIFIES AN SCA PRE-CHARGED HEAVY DUTY COOLANT/ANTIFREEZE BLEND OF ETHYLENE GLYCOL AND INHIBITOR PACKAGE. SCA IS A BORATE/NITRATE BASED FORMULATION, CONTAINING HARD WATER SCALE INHIBITOR, FOAM SUPPRESSANT, AND SILICATE STABILIZER IN THE ANITFREEZE CONCENTRATE.

APPLICATION: THE PRODUCT IS DESIGNED TO ELIMINATE THE INITIAL CHARGE OF SUPPLEMENTAL COOLANT ADDITIVES ON NEW VEHICLES AND RECHARGED SYSTEMS.

FREEZING POINT PROTECTION, °F	DESCRIPTION	FREIGHTLINER SPEC NUMBER
–	SCA PRE-CHARGED	48-25134-001
-34°	SCA PRE-CHARGED 50-50 MIX	48-25134-050
-60°	SCA PRE-CHARGED 60-40 MIX	48-25134-060

C

SPECIFICATIONS: (-001)

1. COLOR: PURPLE
2. ODOR: NOT OFFENSIVE

D

3. PROPERTIES:

	TEST METHODS	TYPICAL VALUES
SPEC. GRAVITY @60°F	ASTM D1122	1.110-1.145
BOILING POINT, REFLUX	ASTM D1120	325°F MIN
FOAM TEST	ASTM D1881	50 ML/3 SEC. MAX
PH 50/50 SOLUTION	ASTM D1287	8.0 - 11.0
FLASH POINT, COC	ASTM D92	250°F, MIN
TOTAL WATER	ASTM D1123	5% MAX
TOTAL GLYCOLS	ASTM E202	95% MIN
FREEZE POINT, 50/50 SOLUTION	ASTM D1177	-34°F
TOTAL DISSOLVED SOLIDS	FED #209B/FM2	0.9% MAX/4% BY WT. MAX
SILICON LEVEL	AA	250 PPM MAX
PHOSPHATE LEVEL	ICP	0 PPM MAX
NITRITE LEVEL	IC	2400 PPM MAX
BORON LEVEL	IC	500 PPM MAX
NITRATE LEVEL	IC	750 PPM MAX

NOTE: FM2-MODIFIED FEDERAL METHOD 2540C
AA-ATOMIC ABSORPTION SPECTROSCOPY
ICP-INTRODUCTIVELY COUPLED PLASMA SPECTROSCOPY
IC-ION CHROMATOGRAPHY

4. MEETS PHYSICAL, CHEMICAL, AND PERFORMANCE REQUIREMENTS OF: ASTM D 4985, DETROIT DIESEL 7SE298, CUMMINS 90T8-4, CATERPILLAR 1E0535 CHRYSLER MS7170, TMC RECOMMENDED MAINTENANCE PRACTICE RP 329 (SPECIFICATION FOR NITRITE-CONTAINING ETHYLENE GLYCOL BASED COOLANT)
5. 50-50 MIX INCLUDES 50% WATER AND 50% ANTIFREEZE BY VOLUME.
6. 60-40 MIX INCLUDES 1.6 QUARTS OF ANTIFREEZE TO ONE QUART OF WATER.

CHG	JOB NO	DATE	BY	REVISION
C	P04875-01	03/23/98	DAJ	REVISED AND REDRAWN IN CATIA, ADD -060.
D	PA2042-85	10/21/98	DAJ	REVISED TYPICAL VALUES UNDER PROPERTIES.

HORTENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	ERK	TAPE-FOAM ADHESIVE	48-25137	
DATE	01/18/96			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. D

SCOPE: THIS SPECIFICATION IDENTIFIES A PVC CLOSED CELL FOAM SEALANT TAPE.

APPLICATION: USE FOR GENERAL INTERIOR AND EXTERIOR MOUNTING, VIBRATION DAMPENERS, SOUND BAFFLES AND WEATHERSTRIPPING WHERE PRESSURE SENSITIVE ADHESIVE AND RESISTANCE TO WEATHERING, FUNGI AND OXIDATION, UV LIGHT AND EXTREME TEMPERATURES ARE REQUIRED.

SPECIFICATION NUMBER:

WIDTH	COLOR	THICKNESS	ADHESIVE	MANUFACTURER'S PART NUMBER	FREIGHTLINER SPECIFICATION NUMBER
1.000	GRY	0.125	ONE SIDE	NORTON NORSEAL V714	48-25137-000
	BLK	0.188	ONE SIDE	NORTON NORSEAL V746	48-25137-001
	BLK	0.031	ONE SIDE	NORTON NORSEAL V981	48-25137-002
1.250	GRY	0.125	ONE SIDE	NORTON NORSEAL V764	48-25137-003
D 0.375	GRY	0.250	ONE SIDE	NORTON NORSEAL V738	48-25137-004

ENGINERING NOTES:

1. PHYICAL PROPERTIES:

	-000	-001	-002	-003	-004
DENSITY: (LBS/CU.FT.)	12	9	15	15	6
HARDNESS: SHORE 00	45	32	28	-	13
90° PEEL ADHESIONS: (OZ/IN)15"DWELL	10	8	16	9.5	16
ELONGATION: (%)	140	80	100	180	140
WATER ABSORPTION:(% BY WEIGHT)	3	5	2.5	1.8	4
TENSILE: (PSI)	55	35	40	70	15

2. MATERIAL MUST CONFORM WITH REQUIREMENTS OF FMVSS 302, FLAMMABILITY OF INTERIOR MATERIALS.

CHG	JOB NO	DATE	BY	REVISION
C	P01739-01	12/06/96	FHC	REVISED AND REDRAWN IN CATIA. ADDED -003
D	P00726-11	09/16/97	DAJ	ADDED -004. RMVD SERVICE TEMP CALLOUT IN NOTE 1.

DRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	SHEET-RUBBER NEOPRENE, 40D	48-25140	
DATE	02/16/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES 40 DUROMETER NEOPRENE RUBBER SHEET.

APPLICATION: GENERAL USE, GASKETS, CUSHIONING PADS, ETC.

THICKNESS (MM)	WIDTH (MM)	ADHESIVE BACKING	FREIGHTLINER SPEC NUMBER
6.35	38.1	NO	48-25140-138

SPECIFICATIONS:

1. MATERIAL: M2BC407A14E014 PER SAE J200/ASTM D2000 CLASSIFICATION.

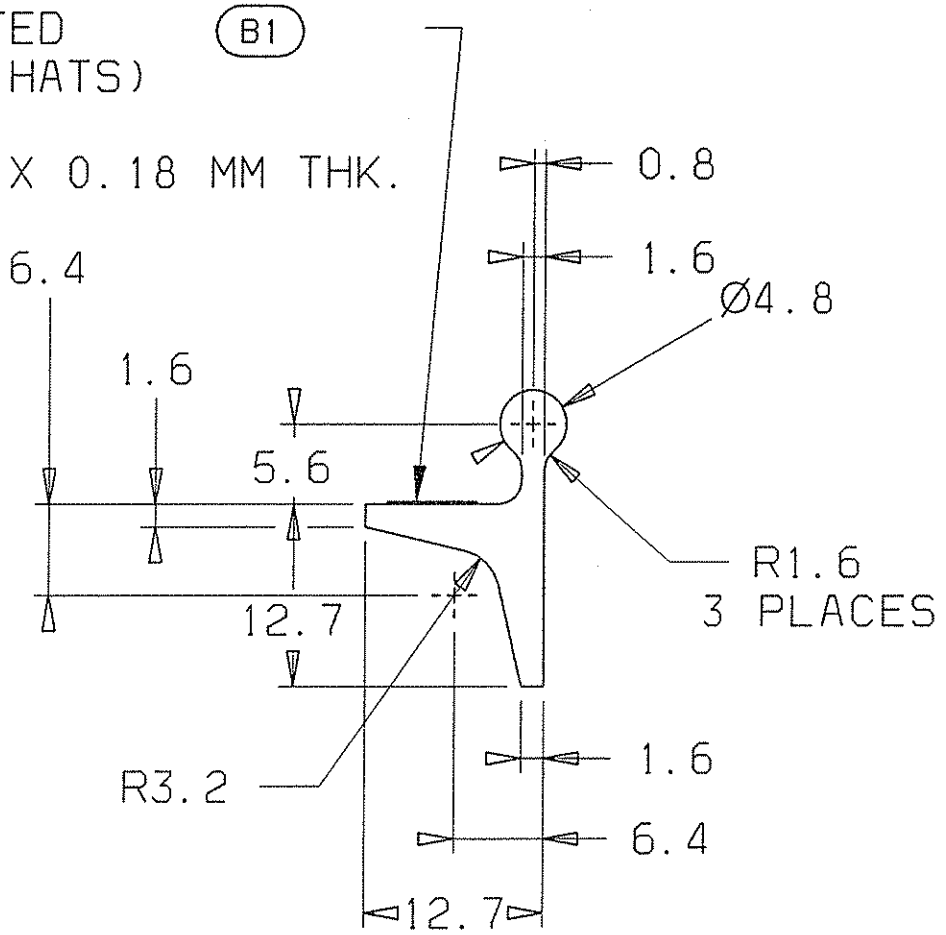
CHG	JOB NO	DATE	BY	REVISION
A	PA2042-83	02/16/98	DAJ	REVISED AND REDRAWN IN CATIA, SCOPE WAS 60 D.

ADRIENNE CHILBERG

DRAWN	PCTB	TITLE	DRAWING NUMBER
APPRV	XXX	EXTRN, EPDM, GRILLE ISOL.	48-25164
DATE	05/10/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. B
CATIA ORIGINAL			

HEAT ACTIVATED (B1)
TAPE STRIP (HATS)
3M-4981
6.4 MM WIDE X 0.18 MM THK.

(A)



MATERIAL		F/L SPEC NO.
NEOPRENE RUBBER	(3)	48-25164-000

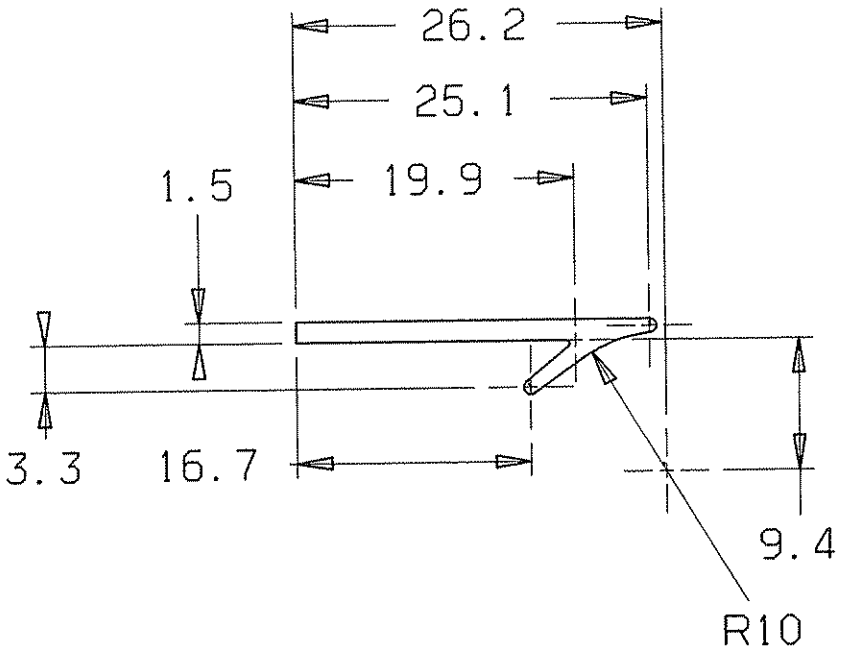
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
(B2) 2. DUROMETER: 60±5
(B3) (3) MATERIAL: EPDM

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-23	05/10/96	PB	INITIAL RELEASE
A	PB4501-19	04/21/97	DW	ADD 3M-4984 ,WIDTH AND THICKNESS
B	P03409-09	10/31/97	PTF	1) HEAT ACTIVATED TAPE WAS PRES SENS, 4981 WAS 4984
				2) 60 DUROMETER WAS 75
				3) EPDM WAS BLACK NEOPRENE PER D-2000 BC, BE

ADRIENNE CHILBERG

DRAWN	BRB	TITLE EXTRUSION-FENDER/INT. AMLF	DRAWING NUMBER 48-25173
APPRV	JJC		
DATE	02/06/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT KG/MM	F/L SPEC NO.
(5)	39.4	0.029	48-25173-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE
3. UNSPECIFIED RADII TO BE R0.25
4. R0.1 IS PERMISSIBLE WHERE PROFILE SHOWS SHARP CORNER
5. EPDM RUBBER, BLACK PER ASTM D2000: M4BA814A14C12F17K11

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-94	02/06/97	BRB	INITIAL RELEASE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	SHEET-STEEL, HSLA, HOT ROLLED, WITH IMPROVED FORMABILITY, CAMLINER-55	48-25177	
DATE	10/30/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. A
CATIA ORIGINAL				

Scope: This specification identifies hot rolled high strength low alloy sheet steel, a designer specification known as CAMLINER-55.

Application: Use for higher strength, and/or lighter weight parts, as desired. This steel my be bent, moderately formed, or welded.

MIN THICKNESS (IN)	WEIGHT LB/FT^2	GAGE NUMBER	INCH EQUIVALENT	FREIGHTLINER SPECIFICATION NUMBER
1/4*	10.20	-	.250	48-25177-000
.215	8.999	4	.2242	48-25177-004
.185	7.749	6	.1943	48-25177-006
.171	7.165	7	.1793	48-25177-007 (9)
.156	6.540	8	.1644	48-25177-008
.142	5.916	9	.1495	48-25177-009
.127	5.290	10	.1345	48-25177-010
.112	4.666	11	.1196	48-25177-011
.097	4.040	12	.1046	48-25177-012

* REPRESENTS NOMINAL THICKNESS ON PLATE STEEL (THK > .200)

Engineering Notes:

1. Sheet herein described shall meet or exceed chemical, physical and dimensional requirements of CAMLINER-55.
2. Material to pickled & oil, and to be specified and ordered at minimum thickness except -000, a plate specification which is ordered at nominal.
3. Thickness cannot exceed standard tolerance for stated reference gage.
4. Gage number and inch equivalent values are for reference only.
5. This material can be used as a substitute for: 48-00722, 48-00718, 48-00701, 48-00731 and 48-00707.

CHG	JOB NO	DATE	BY	REVISION
-	P01078-01	10/30/96	DAJ	INITIAL RELEASE
A	P07188-01	12/22/98	DAJ	REVISED TABLE AND NOTE #2, ALSO SEE SHEET 2.

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	SHEET-STEEL, HSLA, HOT ROLLED, WITH WITH IMPROVED FORMABILITY	48-25177	
DATE	10/30/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. A
CATIA ORIGINAL				

6. Chemical composition shall meet the following limits:(% volume wt)

	FACTOR	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	N	As	Al	Sn	V	Cb	Ti	B	Ca
Min	38	.04	1.30										.020			.030			.0004
Max	47	.08	1.60	.020	.010	.06	.15	.10	.10	.05	.012		.070		.008	.040	.008		.0050

Cu, Ni, Cr, Mo, N, V, and Ti are considered residual.

7. Minimum mechanical properties:

CAMLNR-55 GRADE	YEILD POINT (KSI)	TENSILE STRENGTH (KSI)	ELONGATION (% IN 2 IN)
50 MOD	55	60	22

8. Recommended bending practice:(min inside radius of 90° cold bends)

The recommended fabricating practice for cold forming these steels is to avoid bends that are more severe than those shown in the table below.

CAMLNR-55 GRADE	Axis of the bend in relation to grain flow*	THICKNESS	
		Up to .180 in	.191 to .250 in
50 MOD	Parallel	1.5 T	1.5 T
	Perpendicular	1.0 T	1.0 T

* To take advantage of the smaller radii allowed for bending across the grain flow, it is necessary to indicate grain flow direction on the drawing. Without such action it is advisable to use the radii for bending parallel to the grain flow.

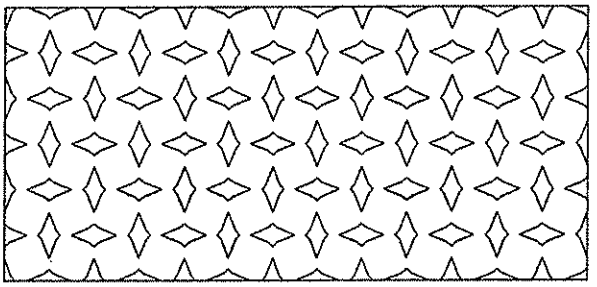
(9) Available as plate only in stock widths over 48 inches. 7 gauge sheet (.1793 inches nom.) is preferred for 3/16 plate.

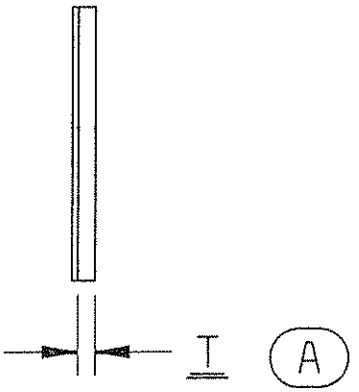
CHG	JOB NO	DATE	BY	REVISION
-	P01078-01	10/30/96	DAJ	INITIAL RELEASE
A	P07188-01	12/22/98	DAJ	ADDED NOTE #9, ALSO SEE SHEET.

ADRIENNE CHILBERG

DRAWN	JGS	TITLE	DRAWING NUMBER
APPRV	AJF	PLATE-TREAD, BRIGHT, 3003 ALUMINUM DIAMOND	48-25178
DATE	06/25/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. A
CATIA ORIGINAL			

MATERIAL: DIAMONDETTE TO BE "FIRE TRUCK QUALITY" ALUMINUM TREAD PLATE. THERE ARE TO BE NO BLEMISHES, SCRATCHES OR STAINS ON THE DIAMONDETTE SURFACE.
VENDOR: ALCOA ALUMINUM



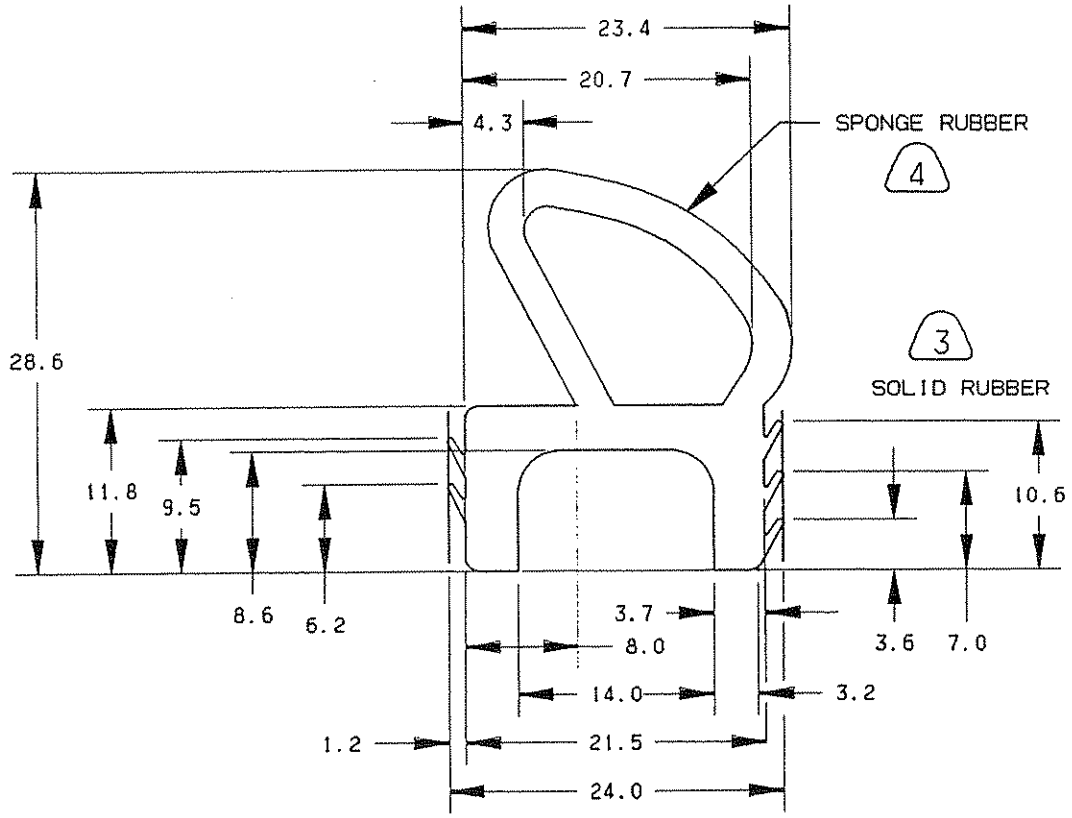


THICKNESS T (INCHES)	ALLOY / TEMPER	FREIGHTLINER SPECIFICATION NUMBER
.063	3003-H22	48-25178-000
.100	3003-H22	48-25178-001
.125	3003-H22	48-25178-002
.188	3003-H22	48-25178-003

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-39	07/01/96	AJF	INITIAL RELEASE
A	P03409-09	10/31/97	PTF	REMOVED PATTERN FROM "T" DIMENSION

ADRIENNE CHILBERG

DRAWN	LDS	TITLE	DRAWING NUMBER	
APPRV	CHB	SEAL-BAGGAGE DOOR PREMIUM II	48-25179	
DATE	10/04/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. A
CATIA ORIGINAL				



MATERIAL	AREA SQ. MM	WEIGHT LB/ M	F/L SPEC NO. (A)
(3)	163.8	.51	48-25179-000/-002
(4)	131.4	.12	48-25179-001/-003

SPECIFICATIONS:

1. TOLER. PER RMA CLASS 2 FOR EXTRUDED SHAPES.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.

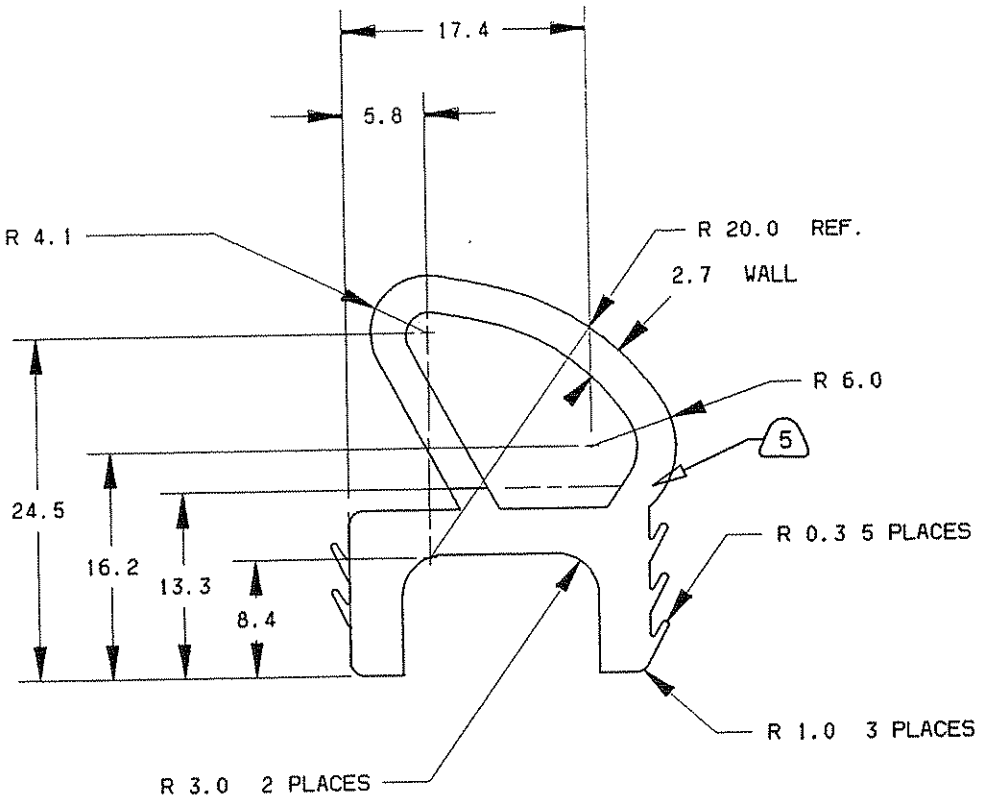
(3.) MATERIAL: EPDM PER ASTM D2000M3BA510A14B13C12F17Z1

(4.) MATERIAL: BLACK EPDM SPONGE PER ASTM D1056 2A4B2C3

CHG	JOB NO	DATE	BY	REVISION
-	P00674-01	10/04/96	LDS	INITIAL RELEASE
A	P02468-03	03/19/97	LDS	CHG IN MATERIAL COMPOUND 3 & 4 AND WALL THICKNESS.
				ADDED -002/-003.

ADRIENNE CHILBERG

DRAWN	LDS	TITLE SEAL-BAGGAGE DOOR PREMIUM II	DRAWING NUMBER 48-25179
APPRV	CHB		
DATE	10/04/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2 / CHG. LTR. A
CATIA ORIGINAL			

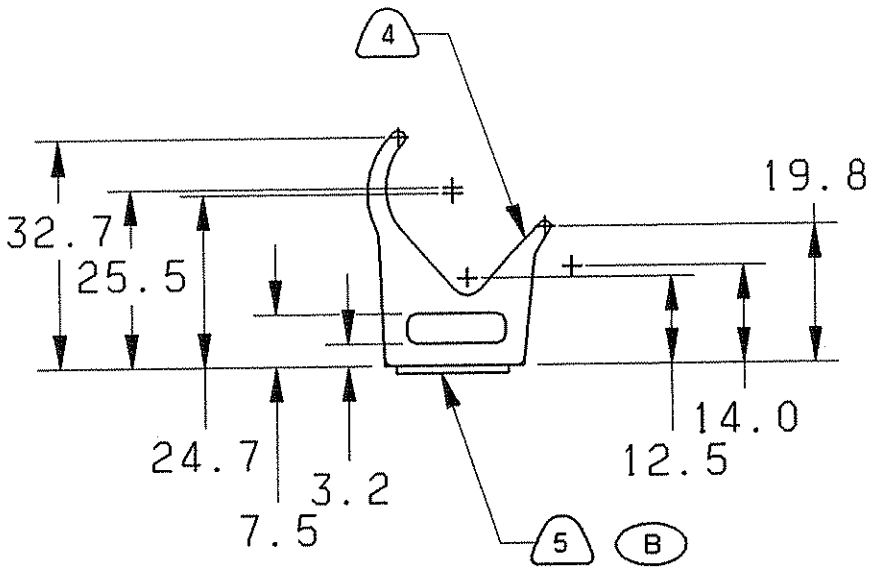


(5) SOME WICKING MAY OCCUR OF SOLID RUBBER INTO SPONGE SOLID RUBBER SHOULD NOT EXCEED THIS LINE.

CHG	JOB NO	DATE	BY	REVISION
-	P00674-01	10/04/96	LDS	INITIAL RELEASE
A	P02468-03	03/19/97	LDS	SEE SHEET 1

ADRIENNE CHILBERG

DRAWN	RWL	TITLE EXTR-SEAL, SECONDARY CAB DOOR, CENTURY CLASS	DRAWING NUMBER 48-25182
APPRV	CEL		
DATE	02/07/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3 / CHG. LTR. B
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
(4)	296.69	.92	48-25182-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES TO CONFORM WITH RMA CLASS 2 COMMERCIAL STANDARDS

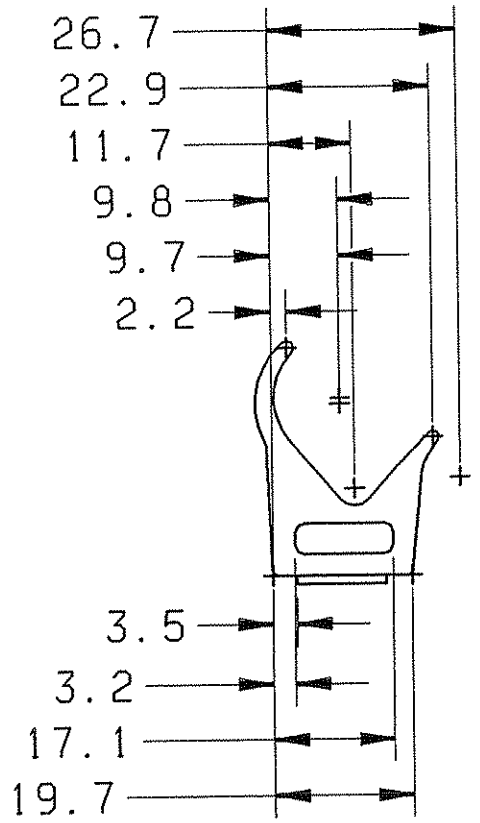
(4.) MATERIAL: EPDM PER ASTM D2000M3BA510A14B13C12F17Z1

(5.) HEAT ACTIVATED TAPE 15.9 WIDE X 1.19 THICK PER 3M 4987

CHG	JOB NO	DATE	BY	REVISION
-	P00481-01	02/07/97	RWL	INITIAL RELEASE
A	P00481-03	03/06/97	MY	DUROMETER SPEC 50 WAS 60
B	P00481-05	05/02/97	MY	TAPE WIDTH 15.9 WAS 12.7

ADRIENNE CHILBERG

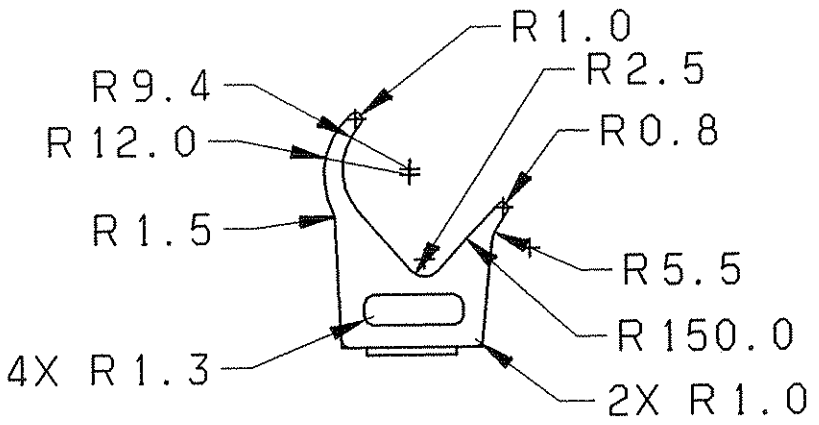
DRAWN	RWL	TITLE EXTR-SEAL, SECONDARY CAB DOOR-CENTURY CLASS	DRAWING NUMBER 48-25182
APPRV	CEL		
DATE	02/07/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3 / CHG. LTR. B
CATIA ORIGINAL			



CHG	JOB NO	DATE	BY	REVISION
-	P00481-01	02/07/97	RWL	INITIAL RELEASE
A	P00481-03	03/06/97	MY	SEE SHEET 1
B	P00481-05	05/02/97	MY	SEE SHEET 1

ADRIENNE CHILBERG

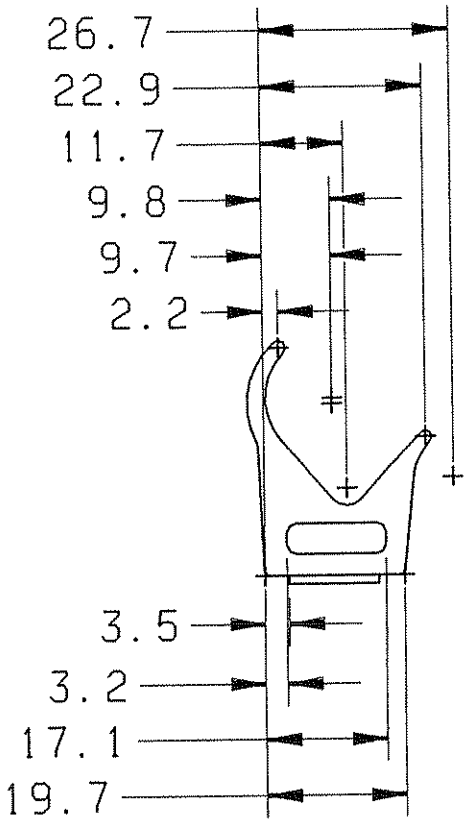
DRAWN	RWL	TITLE	DRAWING NUMBER	
APPRV	CEL	EXTR-SEAL, SECONDARY CAB DOOR-CENTURY CLASS	48-25182	
DATE	02/07/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3	CHG. LTR. B
CATIA ORIGINAL				



CHG	JOB NO	DATE	BY	REVISION
-	P00481-01	02/07/97	RWL	INITIAL RELEASE
A	P00481-03	03/06/97	MY	SEE SHEET 1
B	P00481-05	05/02/97	MY	SEE SHEET 1

ADRIENNE CHILBERG

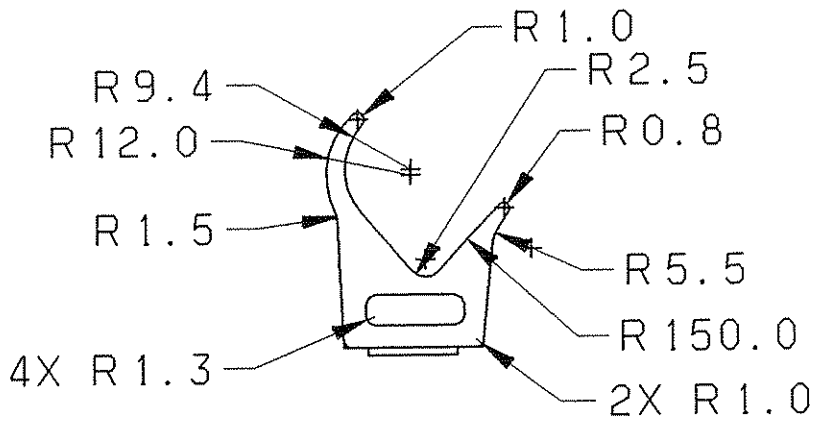
DRAWN	RWL	TITLE EXTR-SEAL, SECONDARY CAB DOOR-CENTURY CLASS	DRAWING NUMBER 48-25182	
APPRV	CEL			
DATE	02/07/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3	CHG. LTR. A



CHG	JOB NO	DATE	BY	REVISION
-	P00481-01	02/07/97	RWL	INITIAL RELEASE
A	P00481-03	03/06/97	MY	SEE SHEET 1

ADRIENNE CHILBERG

DRAWN	RWL	TITLE EXTR-SEAL, SECONDARY CAB DOOR-CENTURY CLASS	DRAWING NUMBER 48-25182
APPRV	CEL		
DATE	02/07/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3 / CHG. LTR. A
CATIA ORIGINAL			



CHG	JOB NO	DATE	BY	REVISION
-	P00481-01	02/07/97	RWL	INITIAL RELEASE
A	P00481-03	03/06/97	MY	SEE SHEET 1

ADRIENNE CHILBERG

DRAWN	FHC	TITLE	DRAWING NUMBER
APPRV	DAJ	HOSE-LOW PRESSURE HIGH TEMP ,HYDRAULIC	48-25189
DATE	09/20/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. A
CATIA ORIGINAL			

UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES

SCOPE: THIS SPECIFICATION DESCRIBES A DOUBLE FIBER BRAID REINFORCED, RUBBER COVERED HOSE INTENDED FOR USE WITH PUSH-ON HOSE FITTINGS AND HOSE CLAMPS.

APPLICATION: POWER STEERING SUCTION AND RETURN LINES, SIMILAR LOW PRESSURES, HIGH TEMPERATURE APPLICATIONS FOR PETROLEUM BASED HYDRAULIC FLUIDS OR LUBRICATIONG OILS.

HOSE SIZE	ID BASIC (INCH)	OD MAX. (INCH)	MIN. BURST PRESSURE PSI	MAX. WORK PRESSURE PSI	MIN. BEND RADIUS	MANUFACTURER (PH)	FREIGHTLINER PART NUMBER
12	.750	1.23	400	100	5.0	PH 891HF-12	48-25189-012
16	1.00	1.53	400	100	6.0	PH 891HT-16	48-25189-016

A

ENGINEERING NOTES:

1. MATERIAL: LOW PRESSURE, HIGH TEMPERATURE SAE J517, 100R4 HOSE

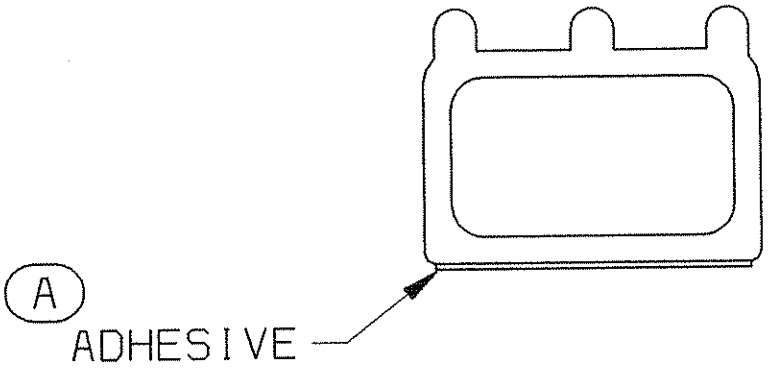
2. CONSTRUCTION: INNER TUBE---SYNTHETIC RUBBER
REINFORCEMENT-TWO BRAIDS OF FIBER
COVER-----MSHA ACCEPTED SYNTHETIC RUBBER COVER

3. TEMPERATURE RANGE: -40°F TO +302°F

CHG	JOB NO	DATE	BY	REVISION
-	P01100-01	09/20/96	FHC	INITIAL LOAD
A	PA2042-78	08/08/97	DAJ	OD MAX ON BOTH PARTS WERE 1.20 AND 1.49 RESPECTIVELY

ADRIENNE CHILBERG

DRAWN	MBL	TITLE SEAL DOOR, AUX W/ ADHESIVE AMERICAN LAFRANCE	DRAWING NUMBER 48-25195	
APPRV	AJF			
DATE	02/04/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
EPDM-RUBBER	AS-REQ	.01	48-25195-000

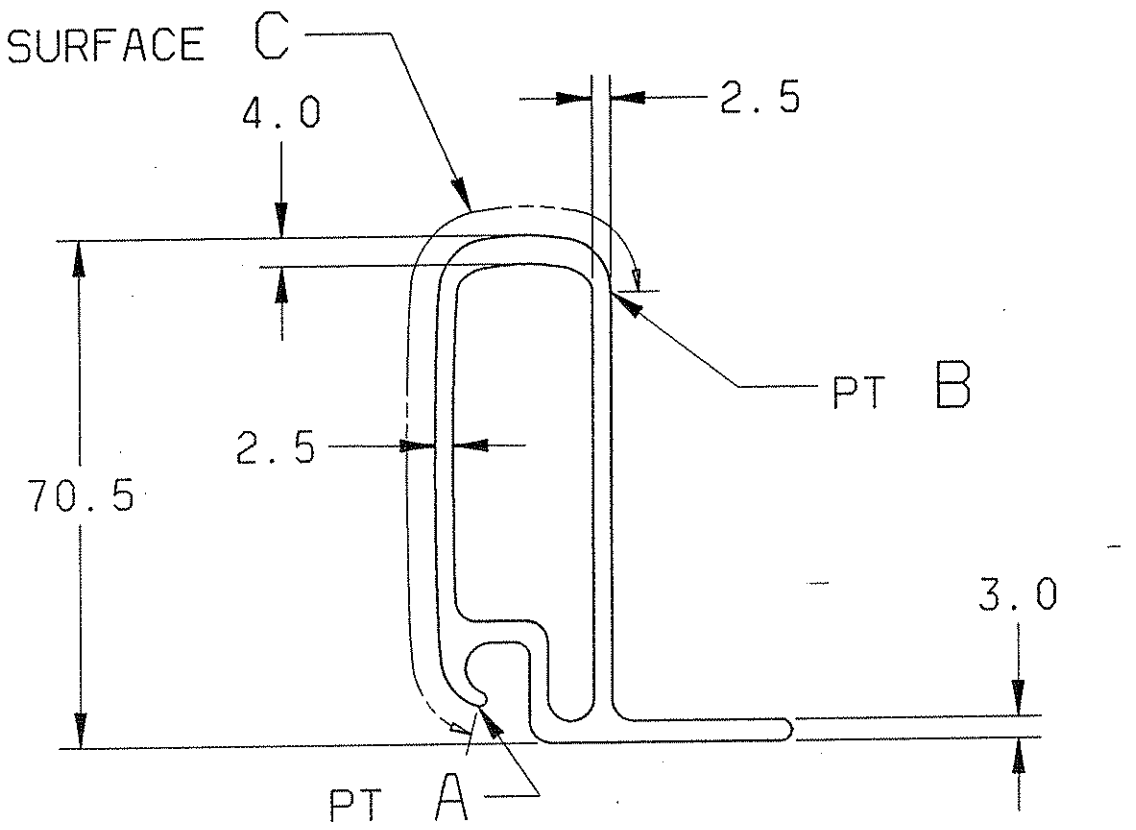
SPECIFICATIONS:

1. FINISH: PER CLEAN SEAL INC, P/N 1705H2 (A)
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-48	02/04/97	MBL	INITIAL RELEASE
A	PB4501-C7	02/28/97	MBL	REVISED TO ADD ADHESIVE

ADRIENNE CHILBERG

DRAWN	CLT	TITLE EXTR-RAIL, BUNK C2	DRAWING NUMBER 48-25201
APPRV	CAJ		
DATE	12/10/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. A
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
6005-T5	580.9	3.47	48-25201-000

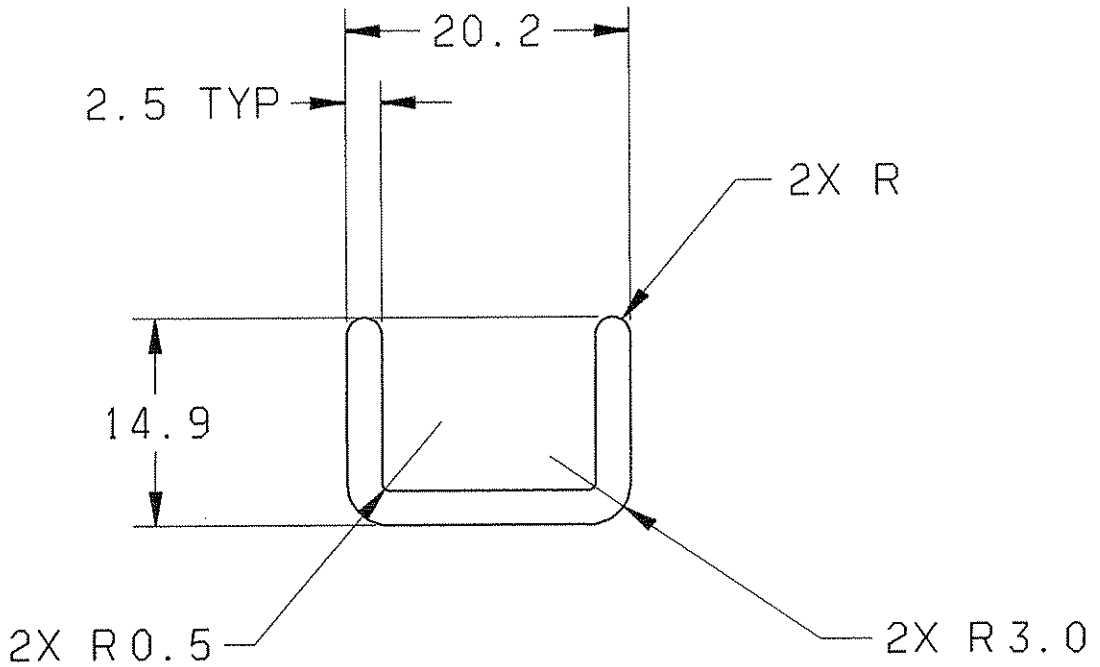
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.
4. SURFACE C FROM PT A TO B ARE COSMETIC EXTERIOR SURFACES AND MUST BE FREE OF NICKS, SCRATCHES, AND OTHER MARKS AS DEFINED BY F/L QUALITY ASSURANCE.

CHG	JOB NO	DATE	BY	REVISION
X-	P2D220	12/10/96	CLT	INITIAL RELEASE
A	P2D220-A4	11/19/97	CLT	PRODUCTION RELEASE

ADRIENNE CHILBERG

DRAWN	PDM	TITLE EXTRUSION-GLASS CHANNEL CENTURY CLASS	DRAWING NUMBER 48-25203
APPRV	CHB		
DATE	12/20/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
6063-T6	107.40	0.29	48-25203-000

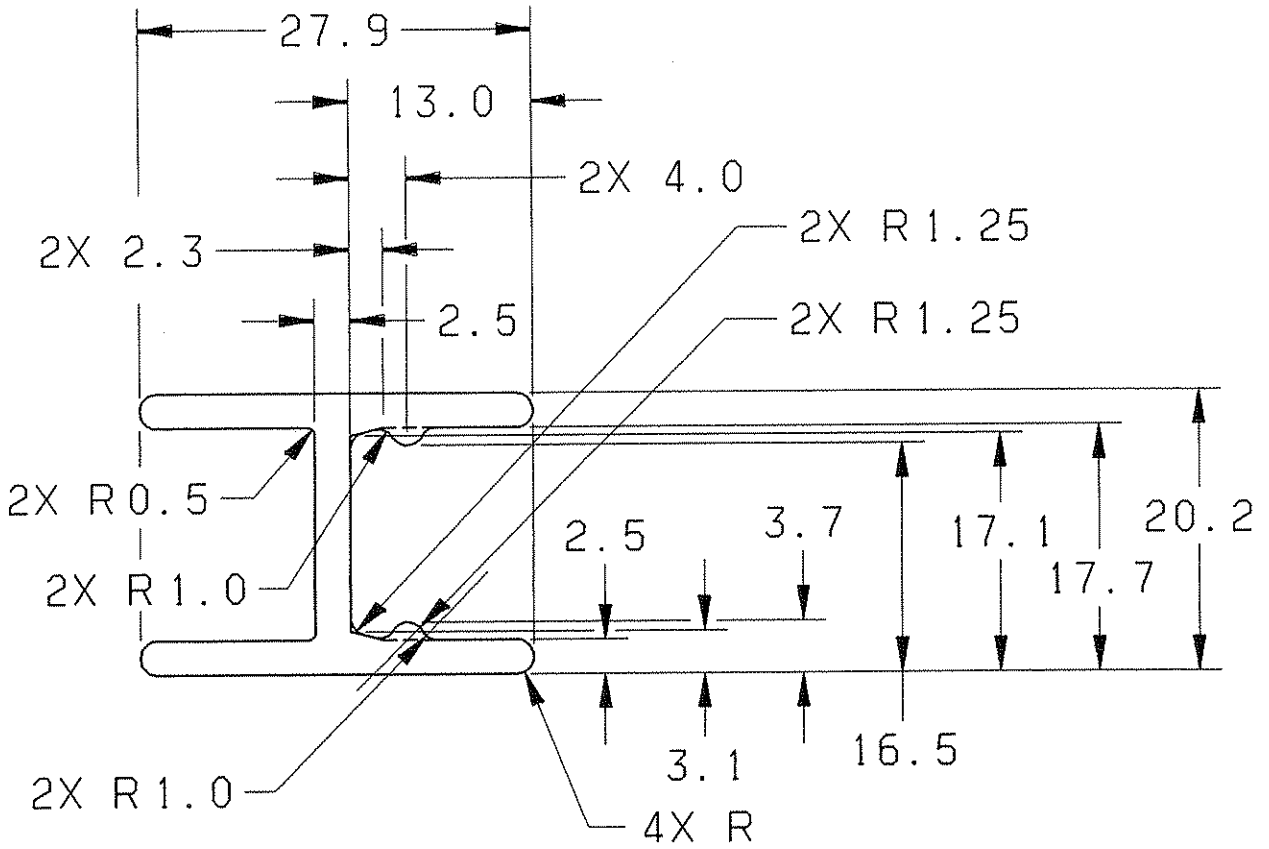
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P01227-01	12/20/96	PDM	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	PDM	TITLE	DRAWING NUMBER	
APPRV	CHB	EXTRUSION-DIVISION BAR CENTURY CLASS	48-25204	
DATE	12/20/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
6063-T6	182.00	0.50	48-25204-000

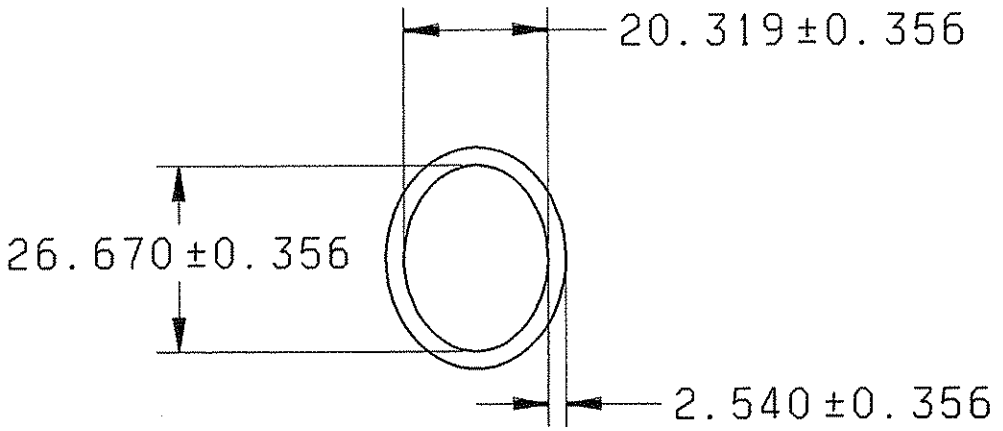
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P01227-01	12/20/96	PDM	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	TLM	TITLE EXTRUSION-GRAB HANDLE 70604	DRAWING NUMBER 48-25205	
APPRV	BRB			
DATE	12/18/96	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



MATERIAL	AREA SQ. IN.	WEIGHT kg/m	F/L SPEC NO.
6005-T5 35KSI YIELD 6063-T6 25KSI YIELD ALTRNT ALUMINUM EXTRUSION	208.5	.56	48-25205-000

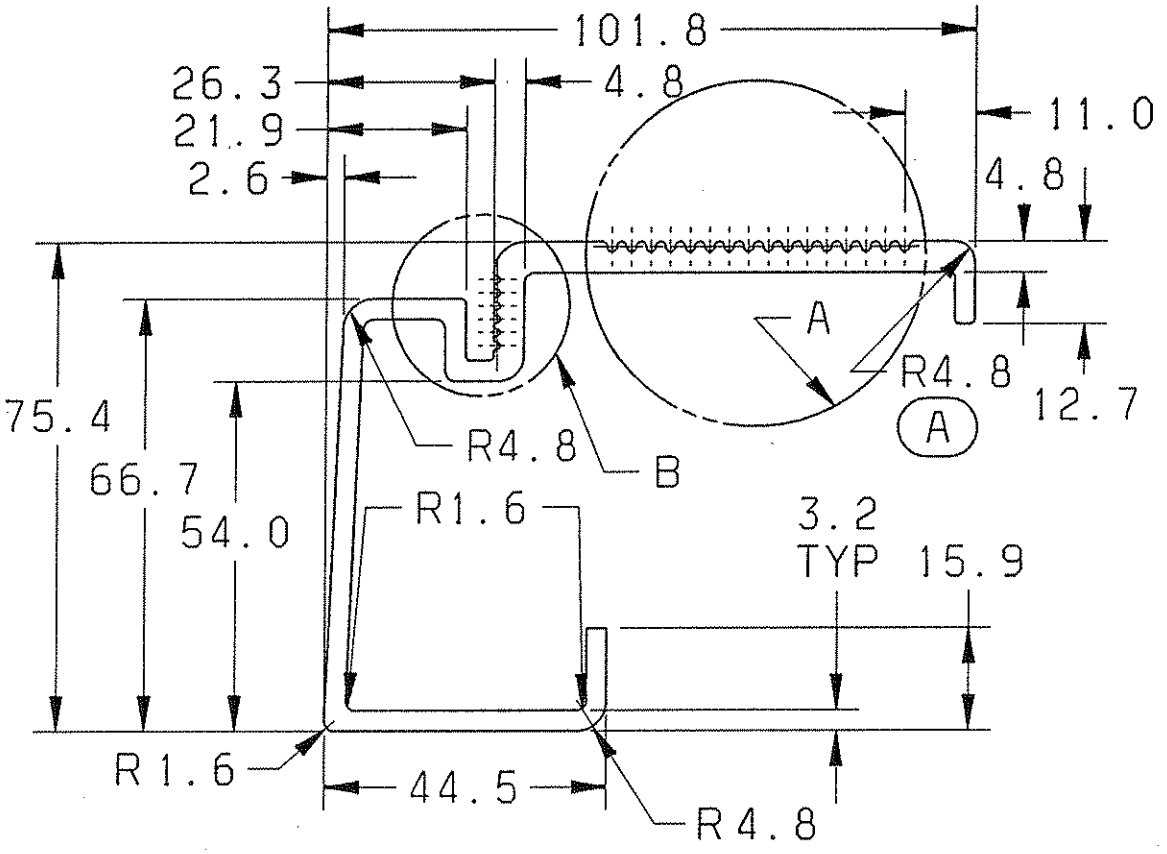
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-49	12/18/96	TLM	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	STH	TITLE	DRAWING NUMBER
APPRV	JJC	EXTRUSION, POST, EXTRUSION	48-25210
DATE	12/9/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2 / CHG. LTR. A
CATIA ORIGINAL			



NOTE: ALL SHARP CORNERS AND UNSPECIFIED RADII WILL BE R0.8

MATERIAL	AREA SQ. mm	WEIGHT LB/M	F/L SPEC NO.
6061-T6	880.579	5.2	48-25210-000

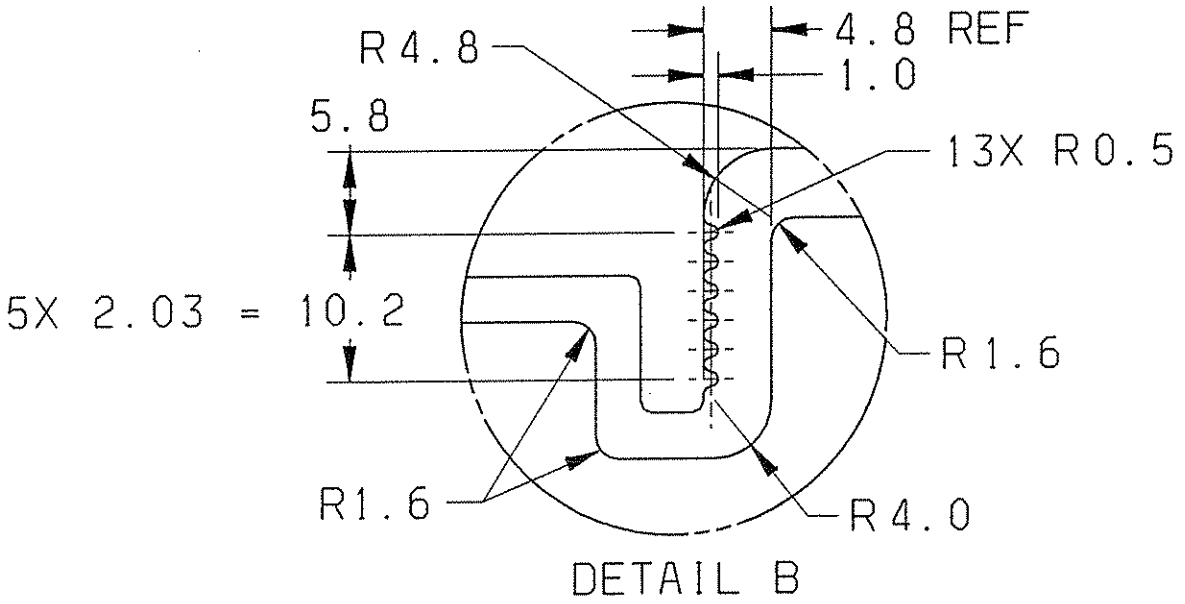
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

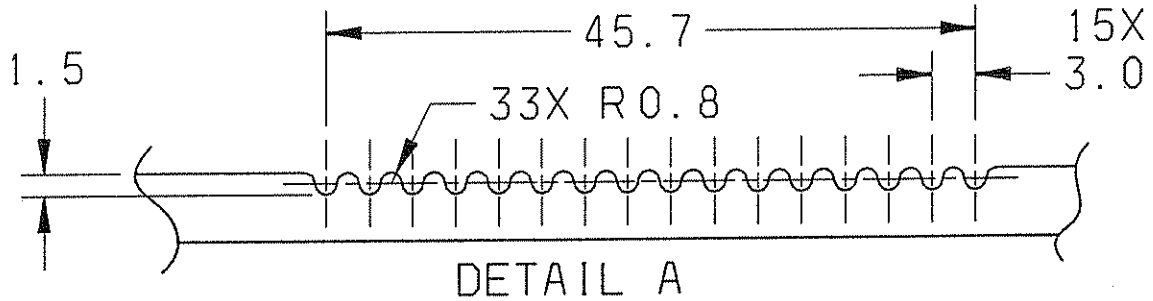
CHG	JOB NO	DATE	BY	REVISION
-	P02211-17	12/9/97	TCM	INITIAL RELEASE
A	P02211-36	1/26/98	TCM	ADDED MISSING DIMENSION

ADRIENNE CHILBERG

DRAWN	TCM	TITLE EXTRUSION, POST, EXTRUSION	DRAWING NUMBER 48-25210	
APPRV	JCC			
DATE	12/9/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. A
CATIA ORIGINAL				



DETAIL B

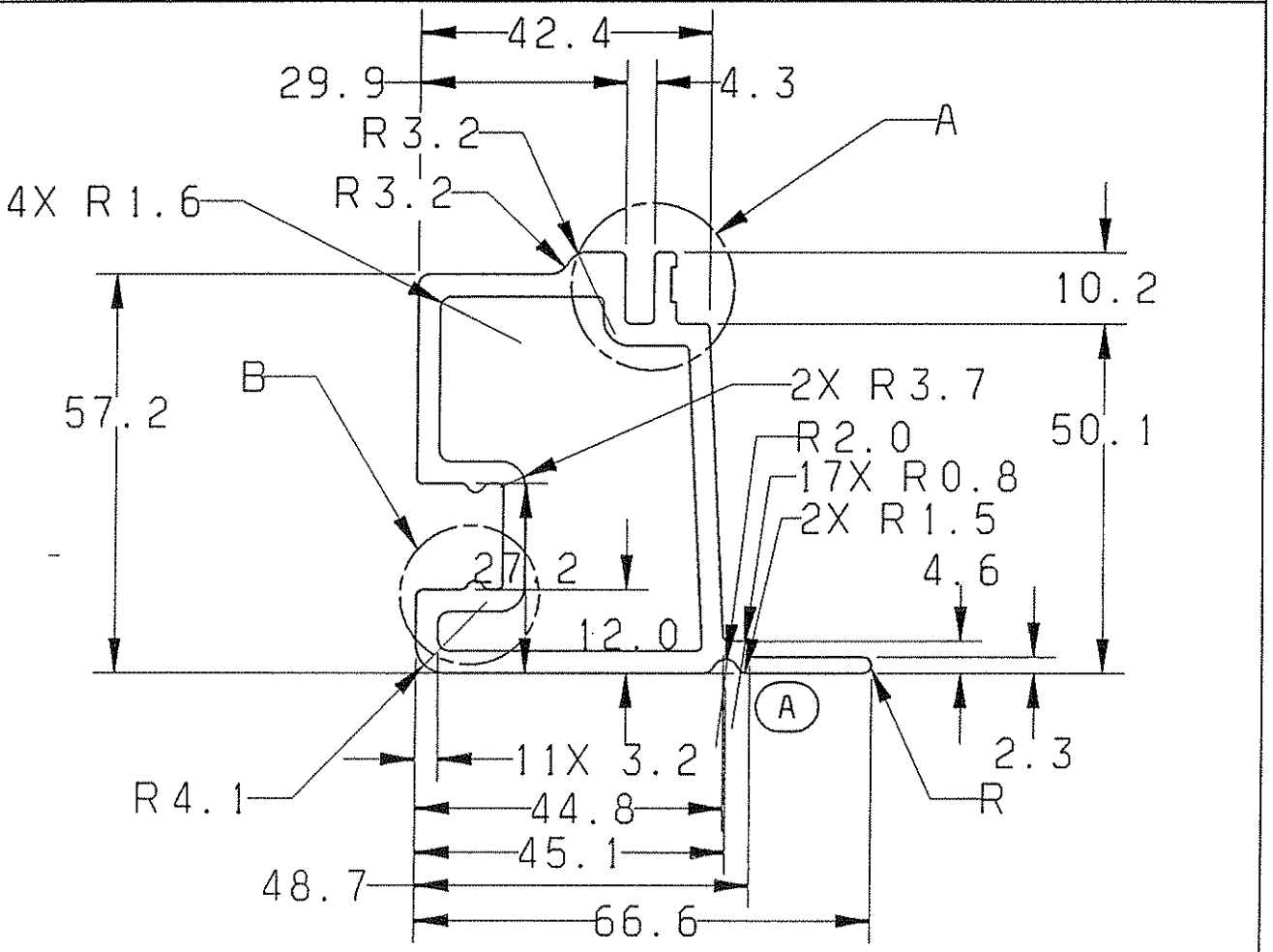


DETAIL A

CHG	JOB NO	DATE	BY	
-	P02211-17	12/9/97	TCM	INITIAL RELEASE
A	P02211-36	1/26/98	TCM	SEE SHEET 1

HURIENNE CHILBERG

DRAWN	STH	TITLE	DRAWING NUMBER	
APPRV	JJC	EXTRUSION, POST, DOOR ALF EAGLE	48-25211	
DATE	10/16/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. A



MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	788.5	4.7	48-25211-000

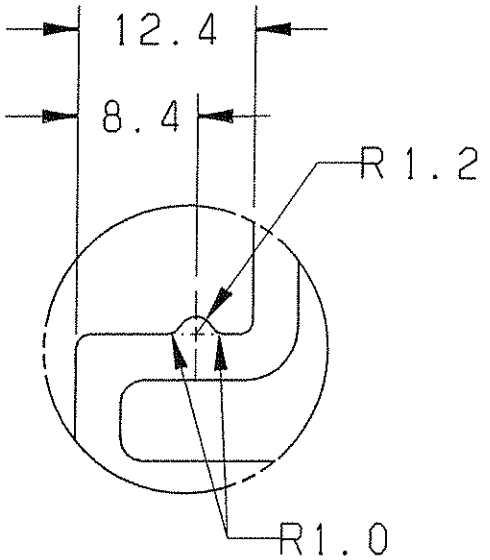
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

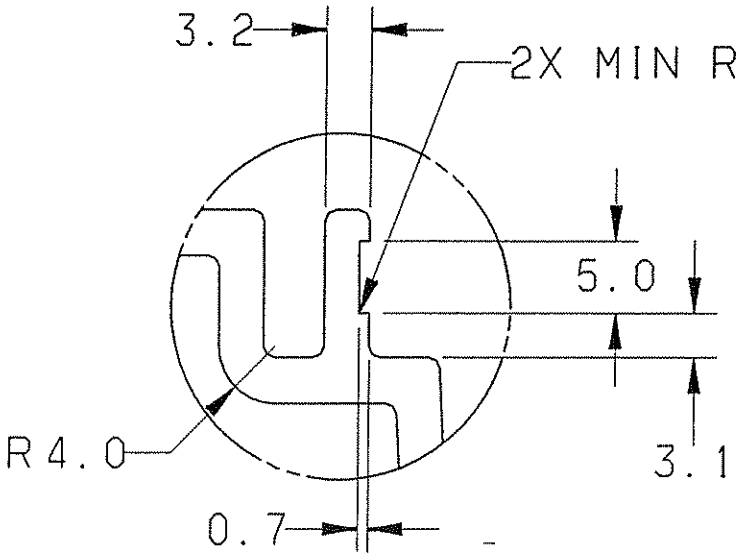
CHG	JOB NO	DATE	BY	REVISION
-	P02211-05	10/16/97	STH	INITIAL RELEASE
A	P02211-19	12/01/97	DEK	ADDED GROOVE FOR ESSEX

HURIENNE CHILBERG

DRAWN	STH	TITLE	DRAWING NUMBER	
APPRV	JJC	EXTRUSION, POST, DOOR ALF EAGLE	48-25211	
DATE	10/16/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. A



DETAIL B
TYP 2 PLC

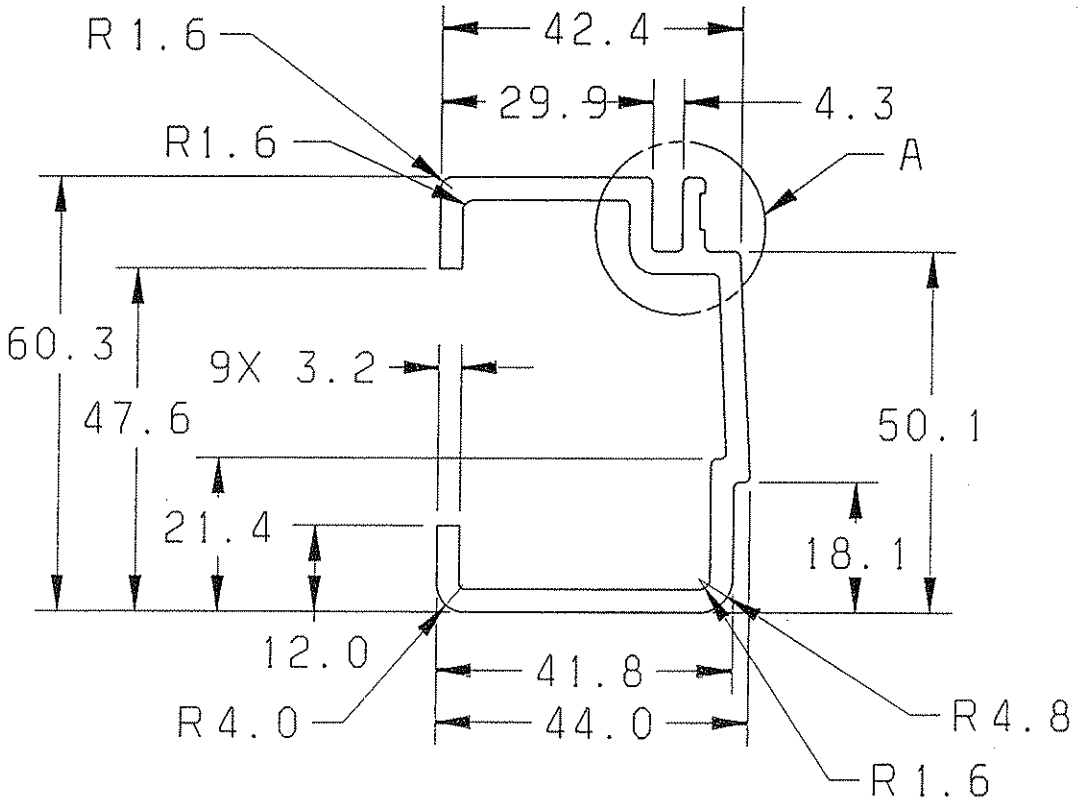


DETAIL A

CHG	JOB NO	DATE	BY	REVISION
-	P02211-05	10/16/97	STH	INITIAL RELEASE
A	P02211-19	12/01/97	DEK	SEE SHEET 1

ADRIENNE CHILBERG

DRAWN	STH	TITLE	DRAWING NUMBER	
APPRV	JJC	EXTRUSION, RADIUS, DOOR ALF EAGLE	48-25212	
DATE	10/16/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. -



NOTE: ALL SHARP CORNERS AND UNSPECIFIED RADII WILL BE R0.8

MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	521.2	3.1	48-25212-000

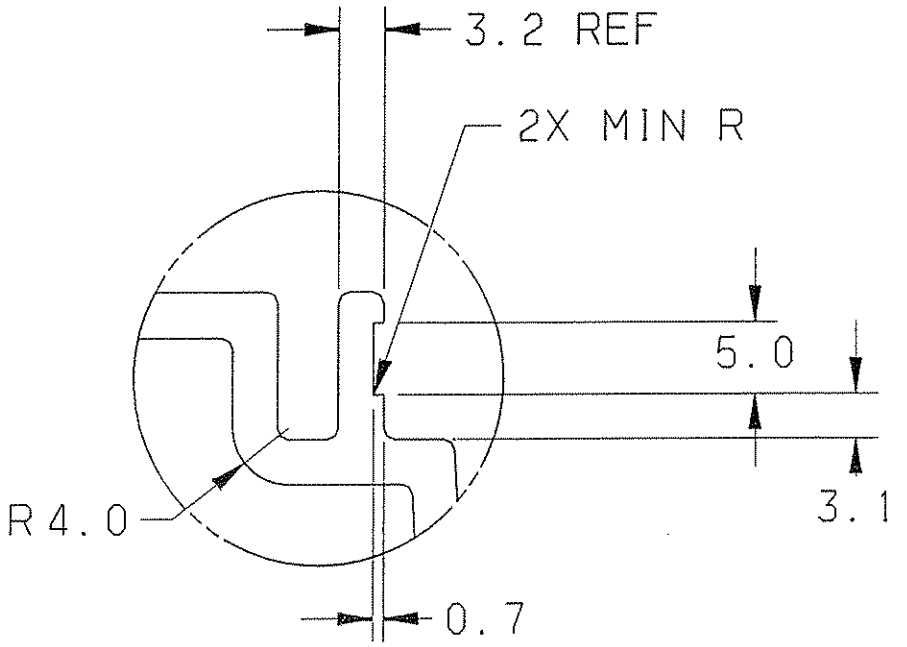
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-05	10/16/97	STH	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	STH	TITLE EXTRUSION, RADIUS, DOOR ALF EAGLE	DRAWING NUMBER 48-25212
APPRV	JJC		
DATE	10/16/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2 / CHG. LTR. -
CATIA ORIGINAL			

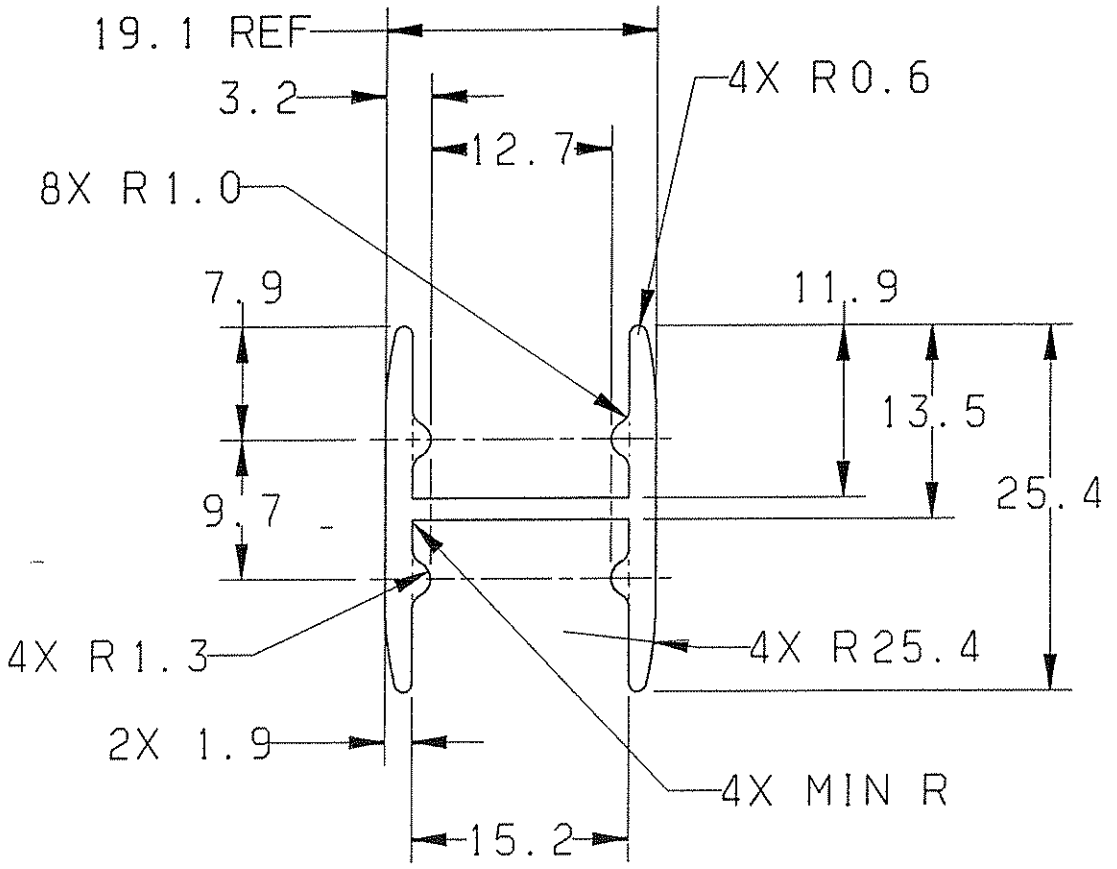


DETAIL A

CHG	JOB NO	DATE	BY	REVISION
-	P02211-05	10/16/97	STH	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	STH	TITLE EXTRUSION, H-CHANNEL, WINDOW ALF EAGLE	DRAWING NUMBER 48-25213
APPRV	JJC		
DATE	10/16/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. A
CATIA ORIGINAL			



MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6463-T5	123.5	0.7	48-25213-000

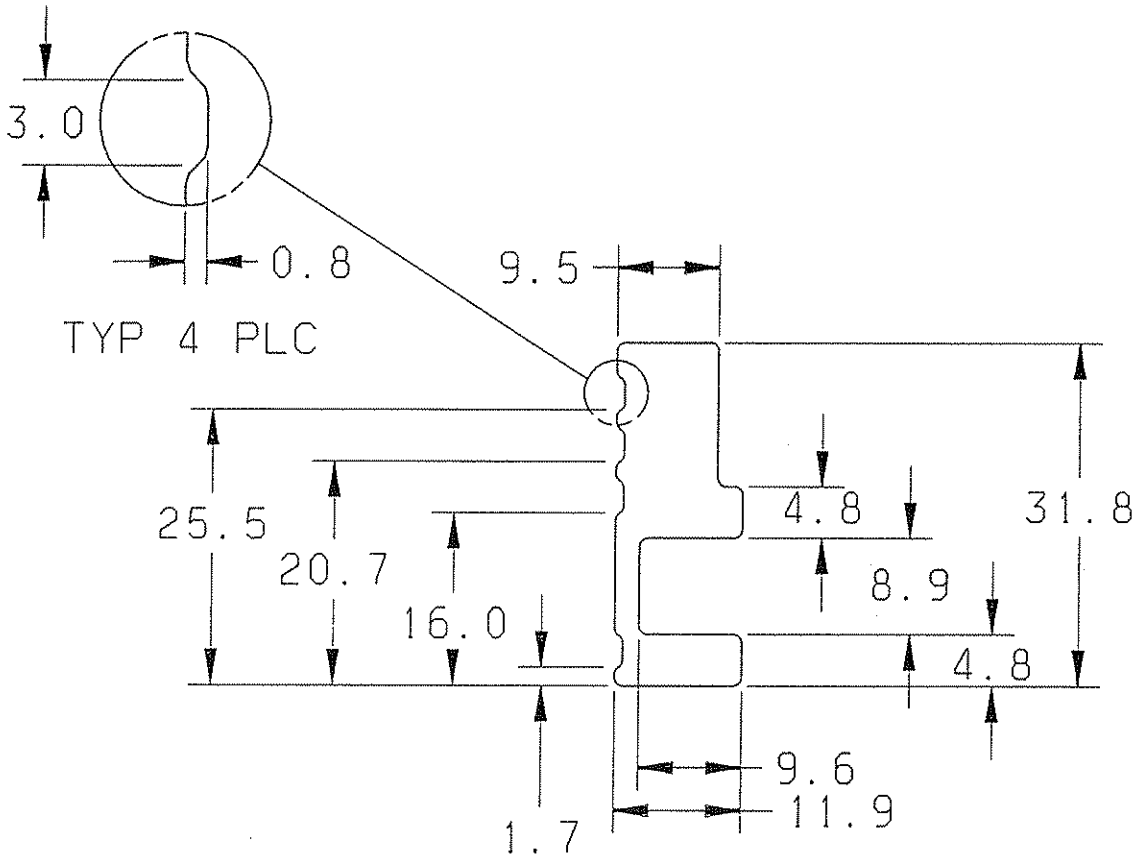
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-05	10/16/97	STH	INITIAL RELEASE
A	P02211-24	12/08/97	KLS	CHANGED MAT'L TYPE 6463-T5 WAS 6061-T6

ADRIENNE CHILBERG

DRAWN: STH	TITLE: EXTRUSION, SEAL, WIPER ALF EAGLE	DRAWING NUMBER: 48-25214	
APPRV: JJC			
DATE: 10/16/97			
CATIA ORIGINAL	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



1. ALL RADII 0.8 UNLESS OTHERWISE SPECIFIED

MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	251.0	1.4	48-25214-000

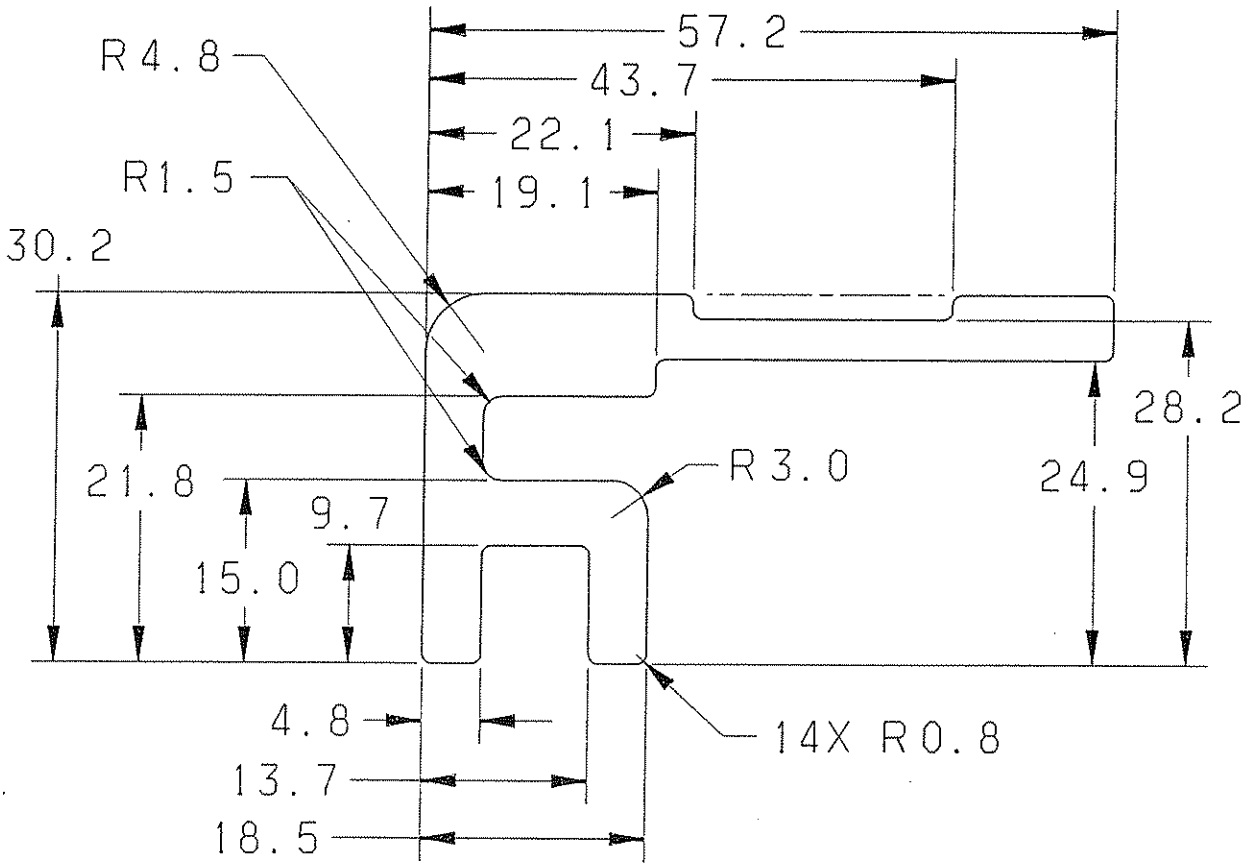
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-05	10/16/97	STH	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN: STH	TITLE: EXTRUSION, SILL, WINDOW, DOOR ALF EAGLE	DRAWING NUMBER: 48-25215	
APPRV: JJC			
DATE: 10/16/97			
CATIA ORIGINAL	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	537.6	3.2	48-25215-000

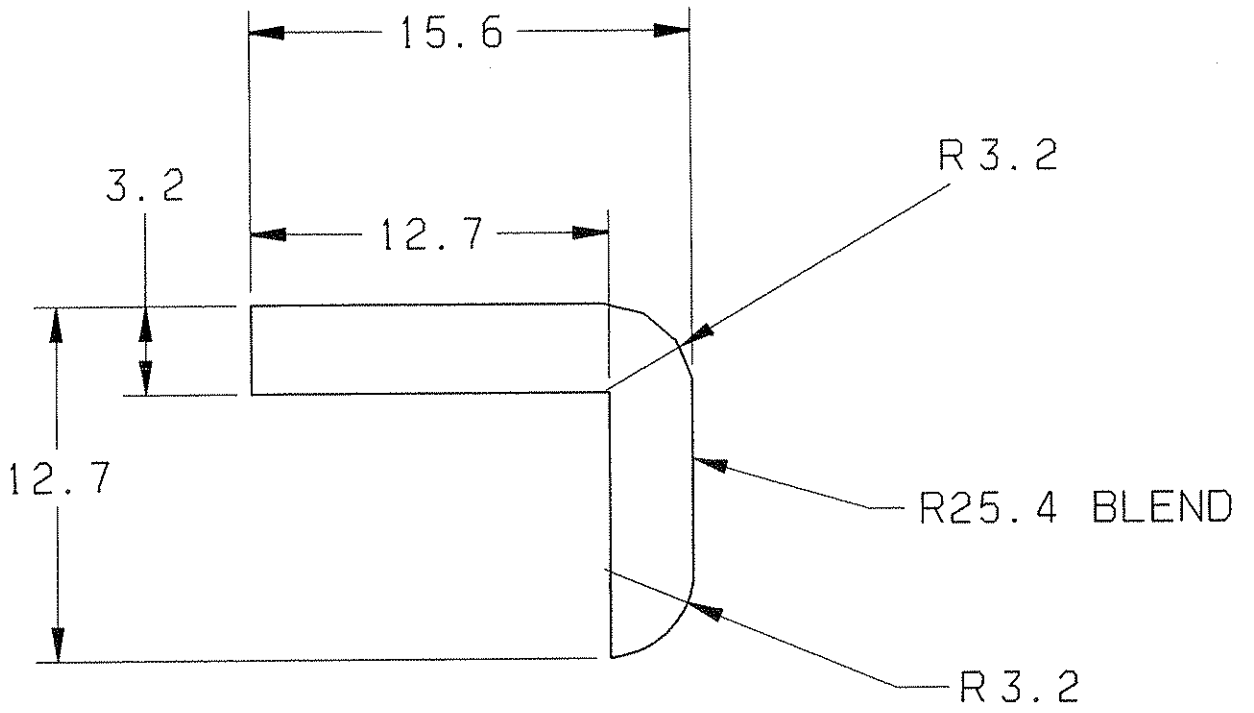
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-05	10/16/97	STH	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	D. WOOTEN	TITLE EXTRUSION WINDOW TRIM	DRAWING NUMBER 48-25217
APPRV	A. FIRTH		
DATE	01/13/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6063-T4	0.113	0.113	48-25217-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-48	01/13/97	AJF	INITIAL RELEASE

DRAWN	DAJ	TITLE: SHEET-STEEL, EXTRA DEEP DRAWING ALUMINUM KILLED	DRAWING NUMBER: 48-25220
APPRV	DAJ		
DATE	01/21/99	FREIGHTLINER CORPORATION, PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. A
CATIA ORIGINAL			

SCOPE: THIS SPECIFICATION DEFINES EXTRA DEEP DRAWING COLD-ROLLED ALUMINUM KILLED STEEL.

APPLICATION: FOR USE IN FABRICATING PARTS WHERE DRAWING AND FORMING IS PARTICULARLY SEVERE AND WHICH REQUIRE ATOMSPHERIC CORROSION RESISTANCE AND A SURFACE IS TO BE PAINTED.

MINIMUM THICKNESS (IN)	GAGE NUMBER	INCH EQUIVALENT	FREIGHTLINER PART NUMBER
.058	16	.063	48-25220-116

ENGINEERING NOTES:

1. MATERIAL HEREIN DESCRIBED SHALL MEET OR EXCEED CHEMICAL, PHYSICAL AND DIMENSIONAL REQUIREMENTS OF ASTM A969-97.

2. SURFACE SHALL HAVE NO CHEMICAL TREATMENT AND SHALL BE OILED AND FREE FROM CORROSION.

A 3. TYPICAL MECHANICAL PROPERTIES: (FOR REFERENCE ONLY)

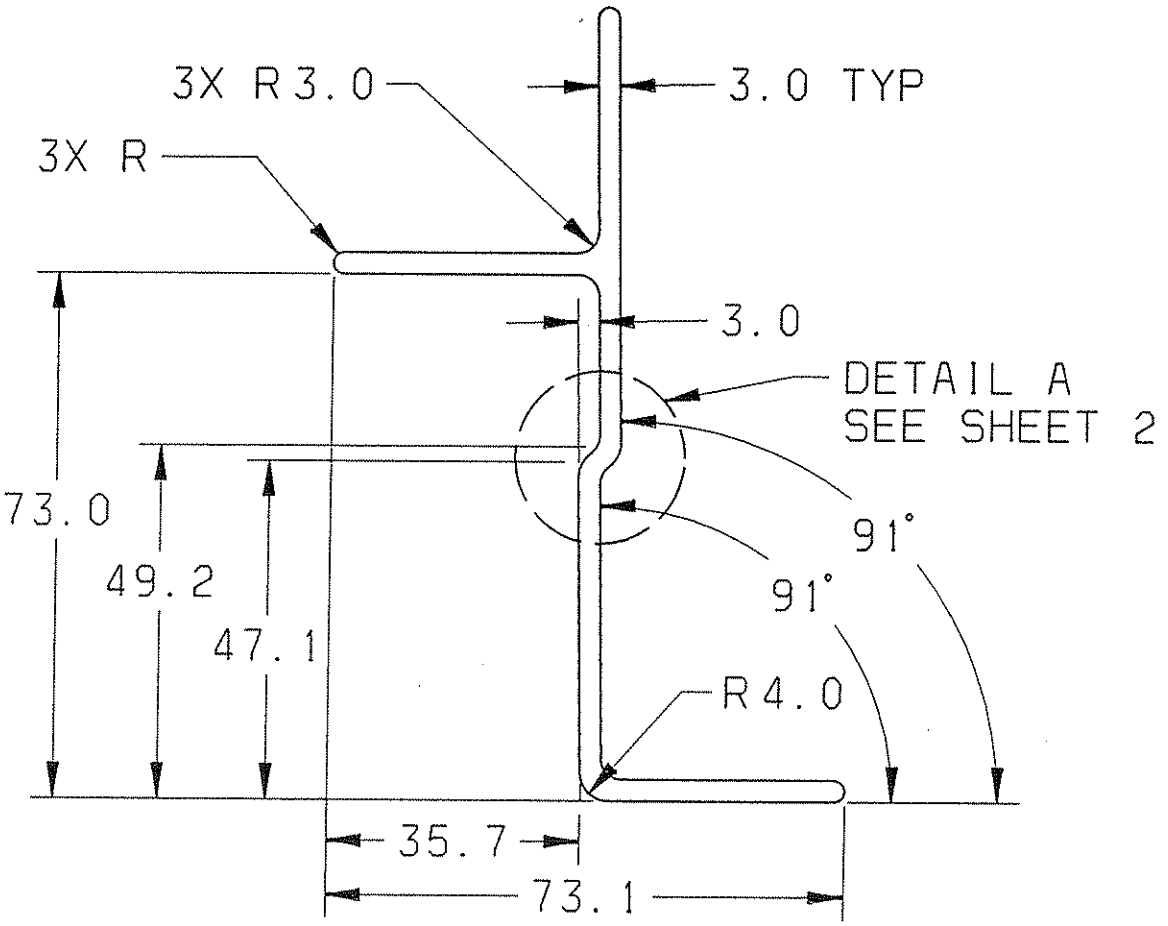
YIELD POINT KSI	TENSILE STRENGTH KSI	ELONGATION % (2 IN)	HARDNESS RANGE (R)
20 (MIN)	41-48	44 (MIN)	N/A

N/A: NOT AVAILABLE AT THIS TIME

CHG	JOB NO	DATE	BY	REVISION
-	P02765-01	01/21/99	DAJ	INITIAL LOAD.
A	PA2042-96	08/24/99	CGD	CRCTD TYP MECH PROPERTIES, REMOVED HSLA FROM SPEC.

ADRIENNE CHILBERG

DRAWN: GPC	TITLE: EXTRUSION-SILL, SIDE	DRAWING NUMBER: 48-25222	
APPRV: HFW			
DATE: 01/31/97			
CATIA ORIGINAL	FREIGHTLINER CORPORATION, PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. A



MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
6005-T5 ALUMINUM	549.24	3.280	48-25222-000

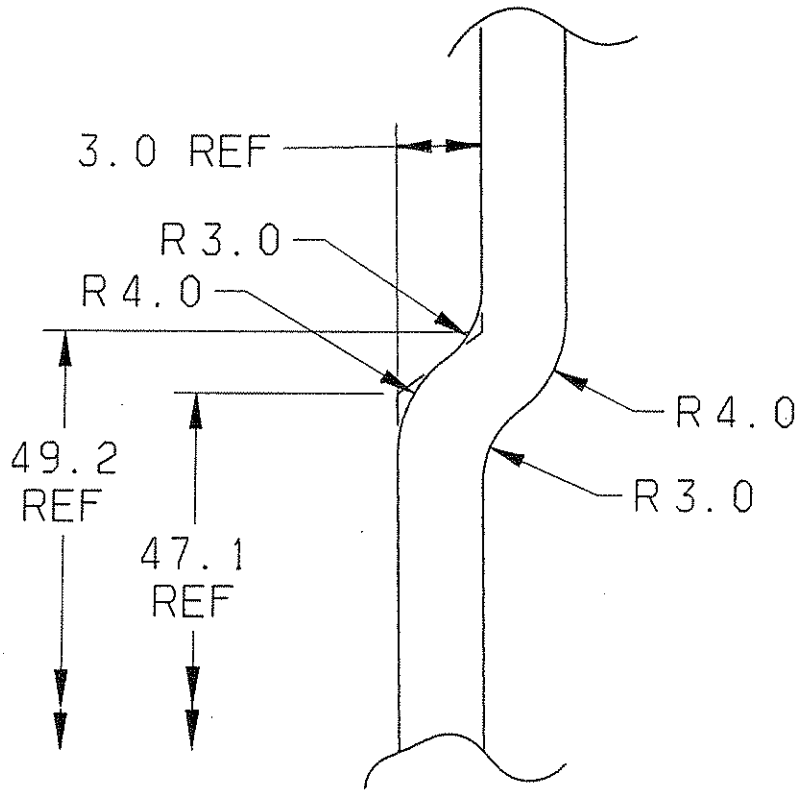
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
X-	P2D220	01/31/97	GPC	INITIAL RELEASE
A	P2D220-A9	12/24/97	CLT	PRODUCTION RELEASE

ADRIENNE CHILBERG

DRAWN	GPC	TITLE EXTRUSION-SILL, SIDE	DRAWING NUMBER 48-25222
APPRV	HFW		
DATE	01/31/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2 / CHG. LTR. A
CATIA ORIGINAL			

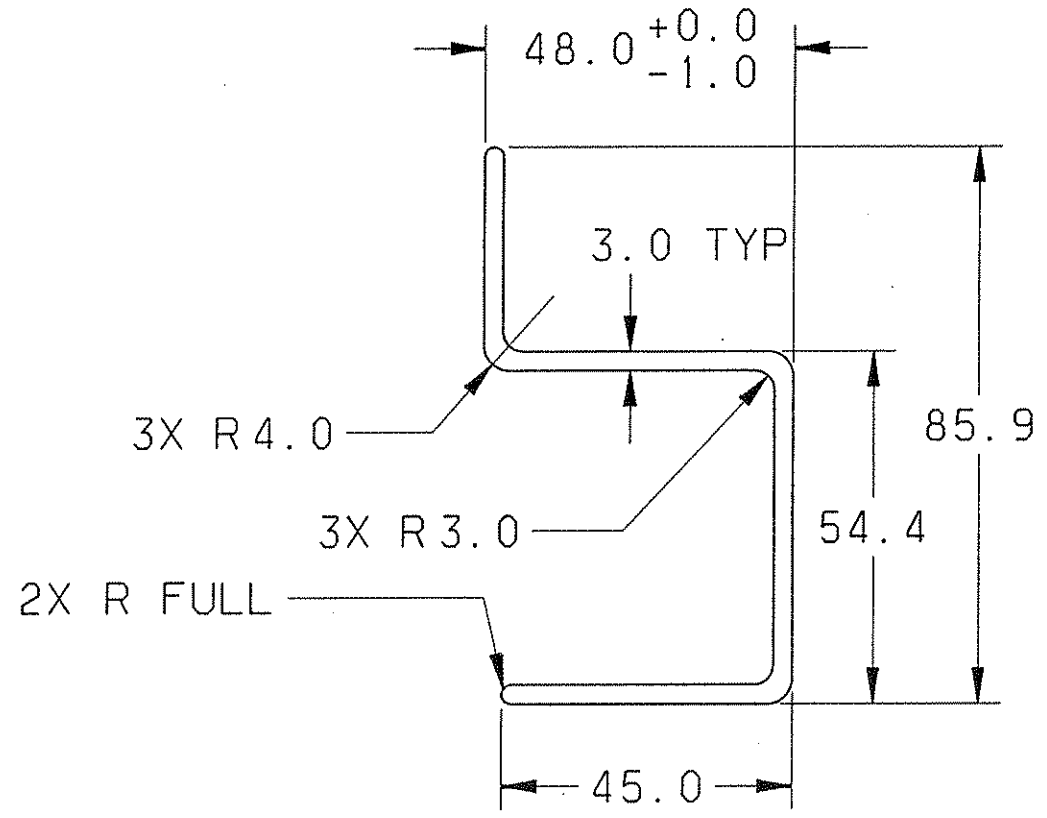


DETAIL A

CHG	JOB NO	DATE	BY	REVISION
X-	P2D220	01/31/97	GPC	INITIAL RELEASE
A	P2D220-A9	12/24/97	CLT	PRODUCTION RELEASE

ADRIENNE CHILBERG

DRAWN: LDS	TITLE: EXTRUSION-RAIL, BOTTOM, SIDEWALL C2	DRAWING NUMBER: 48-25223	
APPRV: CAJ			
DATE: 01/24/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET: 1 OF 1	CHG. LTR.: A
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT LB/ M	F/L SPEC NO.
AL 6005-T5	512.2	3.06	48-25223-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
X-	P2A220	01/31/97	CLT	INITIAL RELEASE
A	P2D220-A4	11/19/97	CLT	PRODUCTION RELEASE

DRAWN	JCT	TITLE	DRAWING NUMBER	
APPRV	DAJ	FOAM CLOSED CELL	48-25224	
DATE	02/20/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES				

SCOPE: THIS SPECIFICATION IDENTIFIES 6.5 PCF CLOSED CELL FLEXIBLE CELLULAR MATERIAL MADE FROM PVC FOAM WITH A BARIUM SULFATE VINYL BARRIER.

APPLICATION: GENERAL CAB INSULATION.

THICKNESS (REF)	SUPPLIER	PRODUCT NUMBER	FREIGHTLINER PART NUMBER
0.321	E.A.R Specialty	WB10-C3201-25	48-25224-000

ENGINEERING NOTES:

1. MATERIAL TO CONFORM WITH APPLICABLE PROVISIONS OF ASTM D3574.

2. PHYSICAL PROPERTIES: (TYPICAL)

TENSILE STRENGTH (psi)	157
TEAR STRENGTH (lbs of tearing)	10.8
ELONGATION (%)	146
COLOR	BLACK

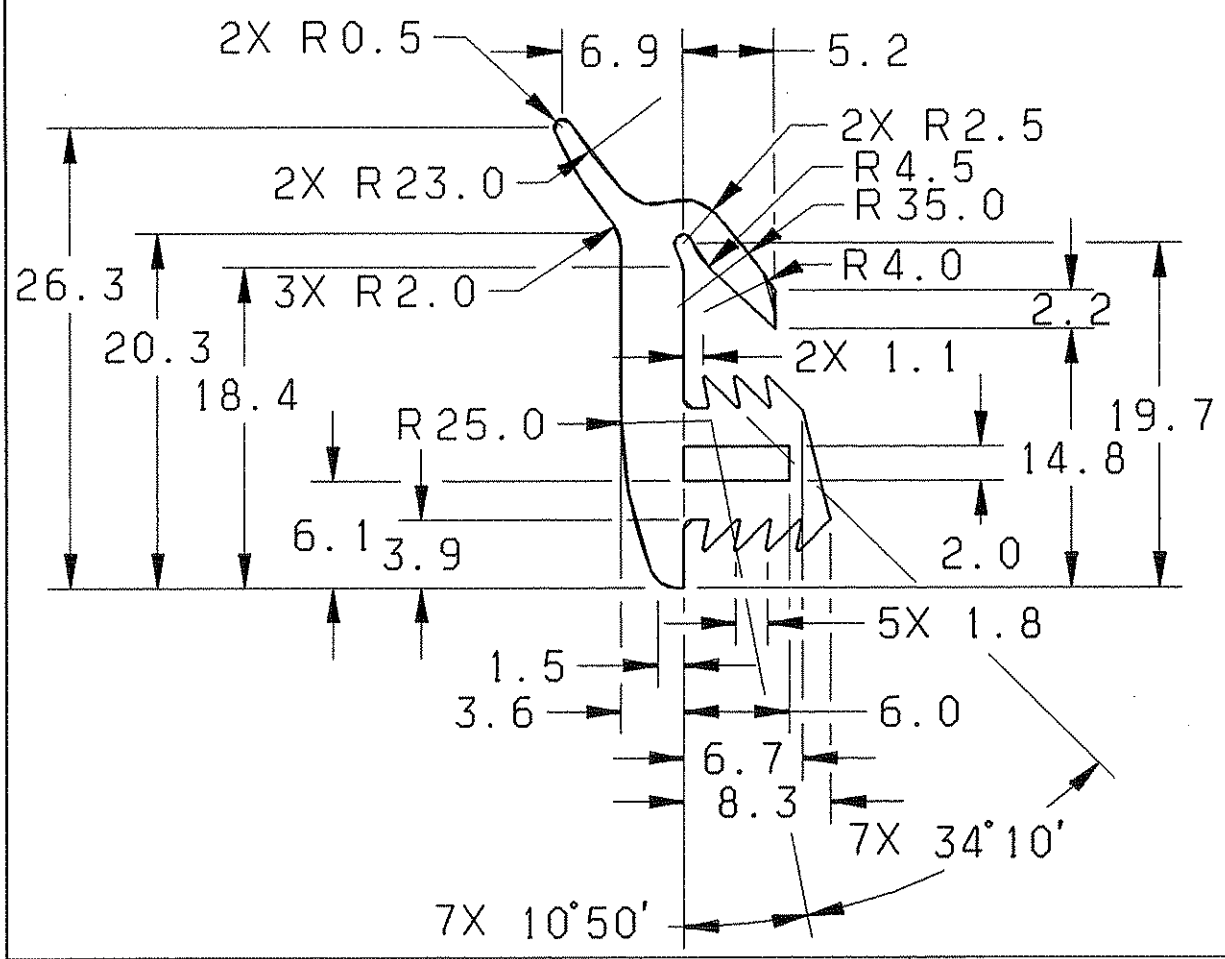
3. MUST MEET APPLICABLE PROVISIONS OF FMVSS #302. FLAMABILITY OF INTERIOR MATERIALS.

4. ENGINEERING APPROVED ALTERNATIVE SUPPLIER. (A)
(MILES RUBBER CO.- PRODUCT NUMBER S090/F08)

CHG	JOB NO	DATE	BY	REVISION
-	PA2042-76	02/20/97	JCT	INITIAL LOAD
A	P03376-06	04/09/98	GEH	ADDED NOTE #4. TO DRAWING

ADRIENNE CHILBERG

DRAWN	CFF	TITLE	DRAWING NUMBER	
APPRV	GEH	SEAL-DOOR, AUX W/ ADHESIVE AMERICAN LAFRANCE	48-25225	
DATE	05/27/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
EPDM-RUBBER	0.221	0.01	48-25225-000

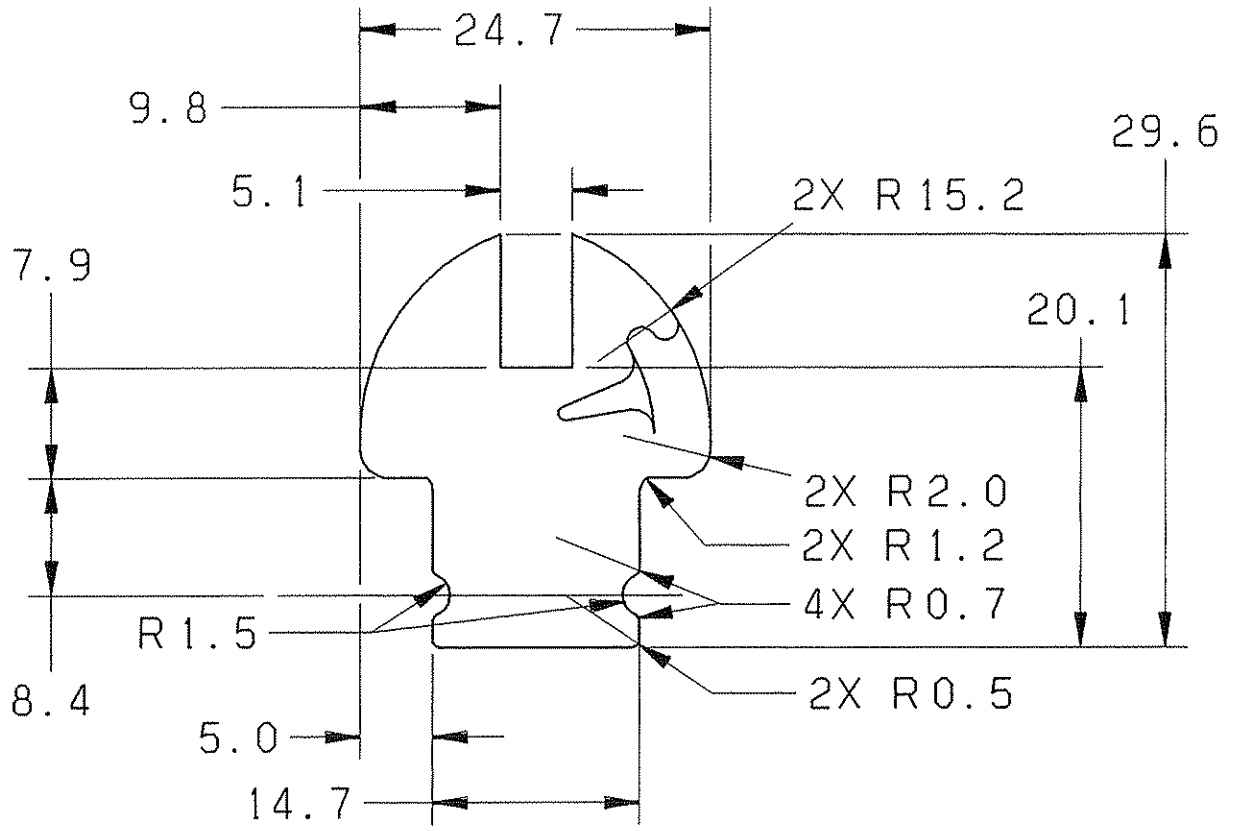
SPECIFICATIONS:

1. FINISH: PER NORTHWEST RUBBER EXTRUDERS P/N P355
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-16	03/21/97	MRJ	INITIAL RELEASE
A	PB4501-L6	05/27/97	CFF	ADDED DIMENSIONS

ADRIENNE CHILBERG

DRAWN	DLW	TITLE	DRAWING NUMBER	
APPRV	AJF	EXTRUSION-SEAL, WINDOW	48-25226	
DATE	02/27/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
EPDM DURO 65±5	0.740	0.740	48-25226-000

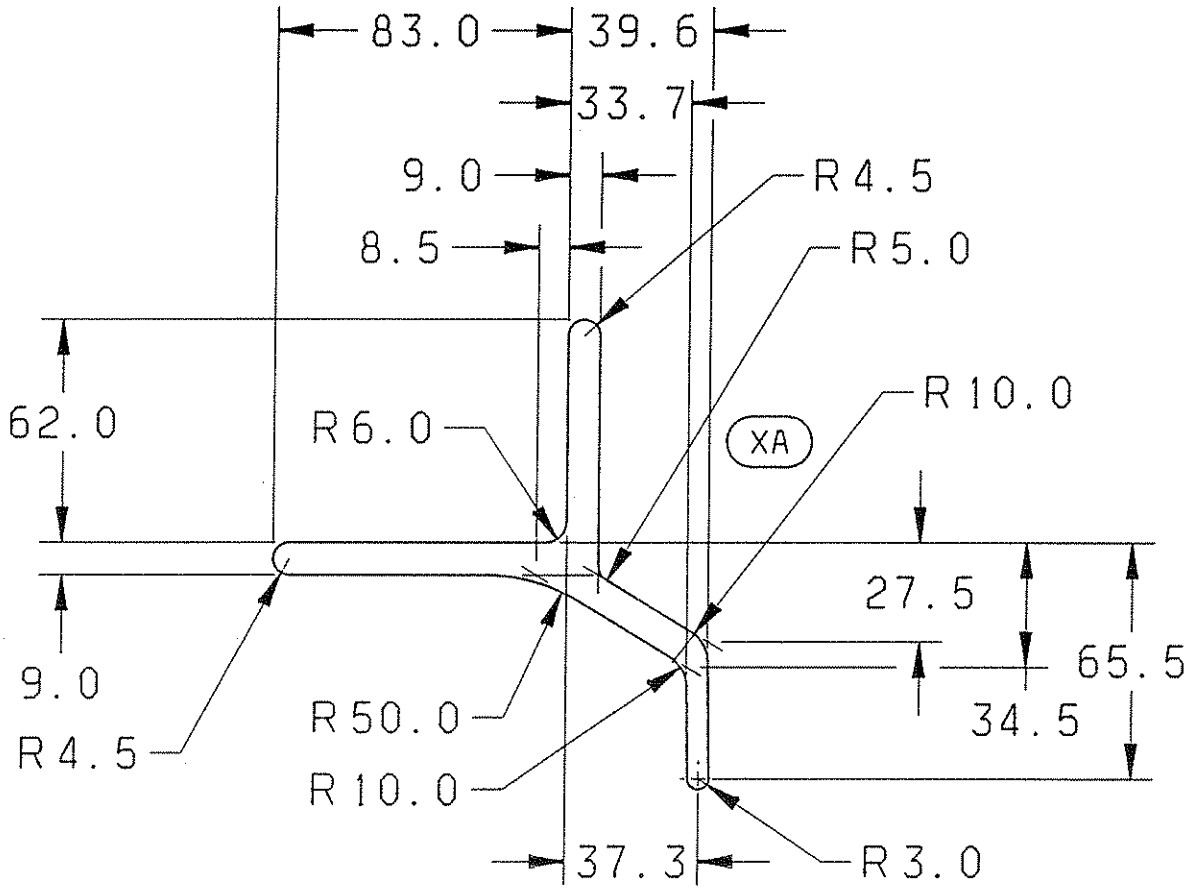
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES TO CONFORM WITH RMA CLASS 2 COMMERCIAL STANDARDS.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-C8	02/27/97	DLW	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	GRH	TITLE	DRAWING NUMBER	
APPRV	CAJ	EXTRUSION FRONT UPPER BUNK SUPPORT BRACKET	48-25227	
DATE	02/06/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. B



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6005-T5 ALUMINUM EXTRUSION	3.10	0.30	48-25227-000

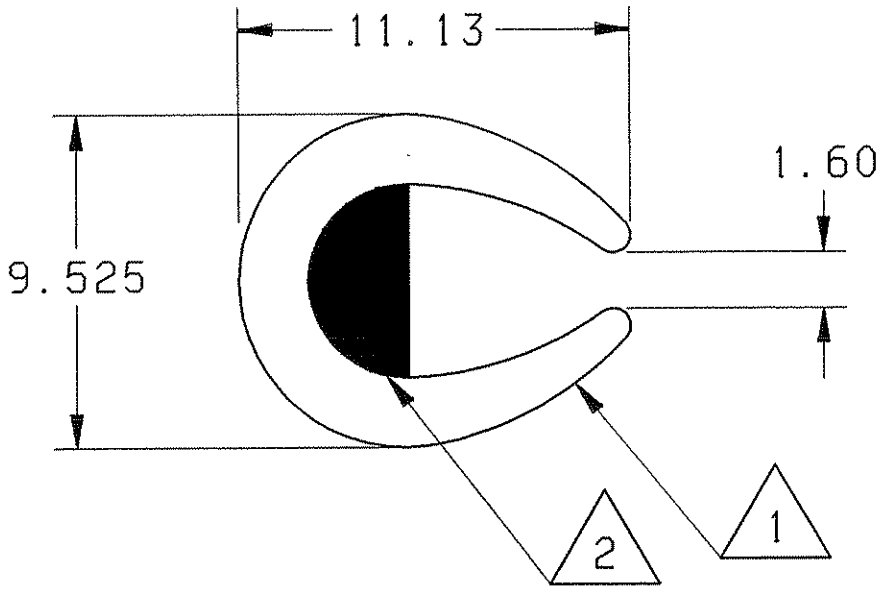
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
X-	P2D220	03/05/97	GRH	INITIAL RELEASE
XA	P2D220	04/17/97	GRH	REMOVED UPPER FLANGE, REVISED LOWER FLANGE
B	P2D220-A9	12/31/97	MDJ	PRODUCTION RELEASE.

ADRIENNE CHILBERG

DRAWN	MY	TITLE EXT TRIM-EDGE, WINDOW, LWR DOOR CENTURY CLASS	DRAWING NUMBER 48-25229
APPRV	HFW		
DATE	03/06/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



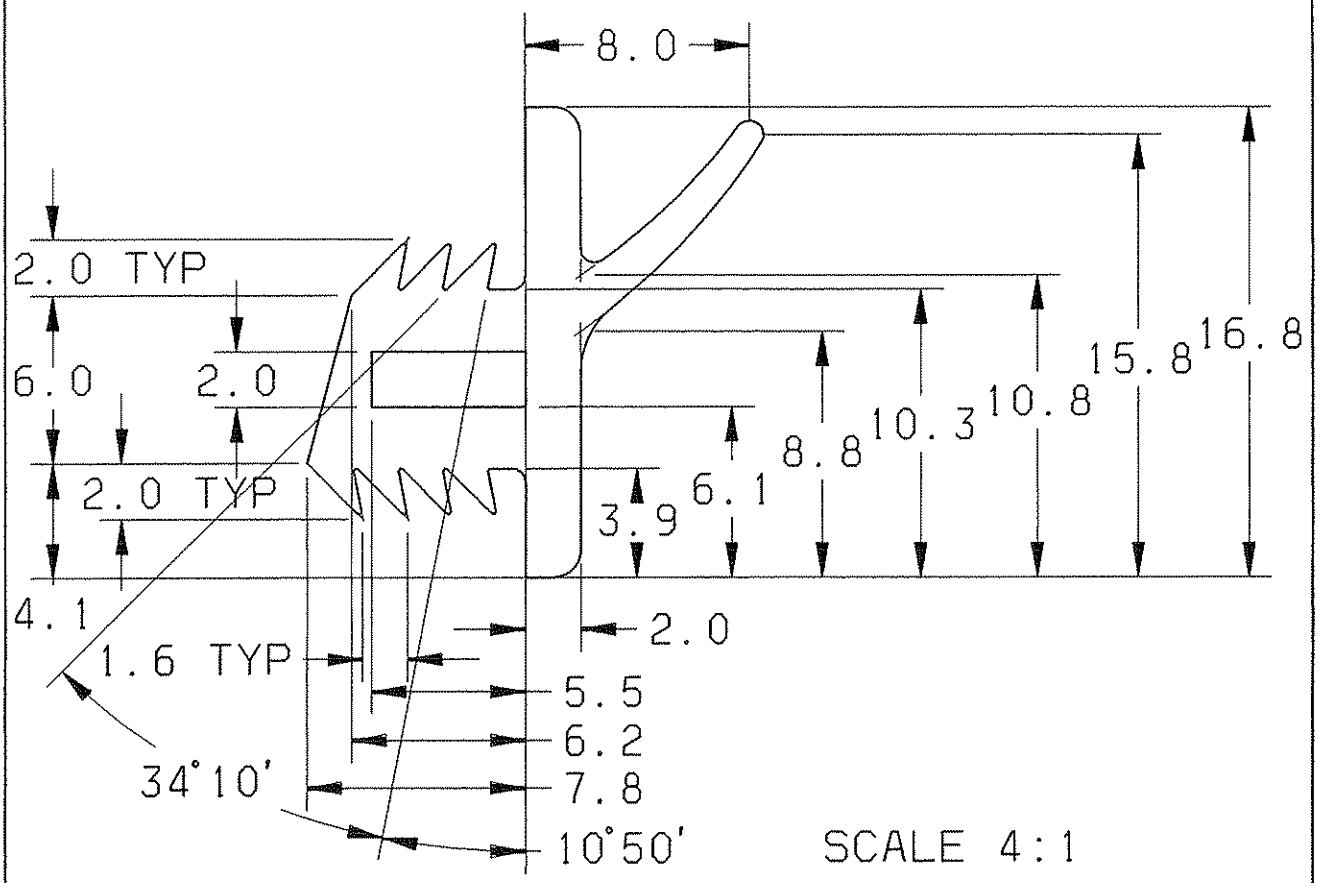
MATERIAL	AREA SQ. MM.	WEIGHT LB/M.	F/L SPEC NO.
1	-	-	48-25229-000

SPECIFICATIONS:

1. PVC (BLACK) 85 DUROMETER. WEATHERABLE(AUTOMOTIVE GRADE-EXTERIOR)
2. ACRYLIC HOT MELT
3. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
4. TOLERANCES OTHER THAN NOTED PER RUBBER MANUFACTURERS ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P00858-01	03/06/97	MY	INITIAL RELEASE, REPLACES 48-03159

DRAWN	MY	TITLE	DRAWING NUMBER
APPRV	HFW	EXT-SEAL, SCRAPER, CAB DOOR CENTURY CLASS	48-25230
DATE	03/03/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
△1	88.24	0.18	48-25230-000

SPECIFICATIONS:

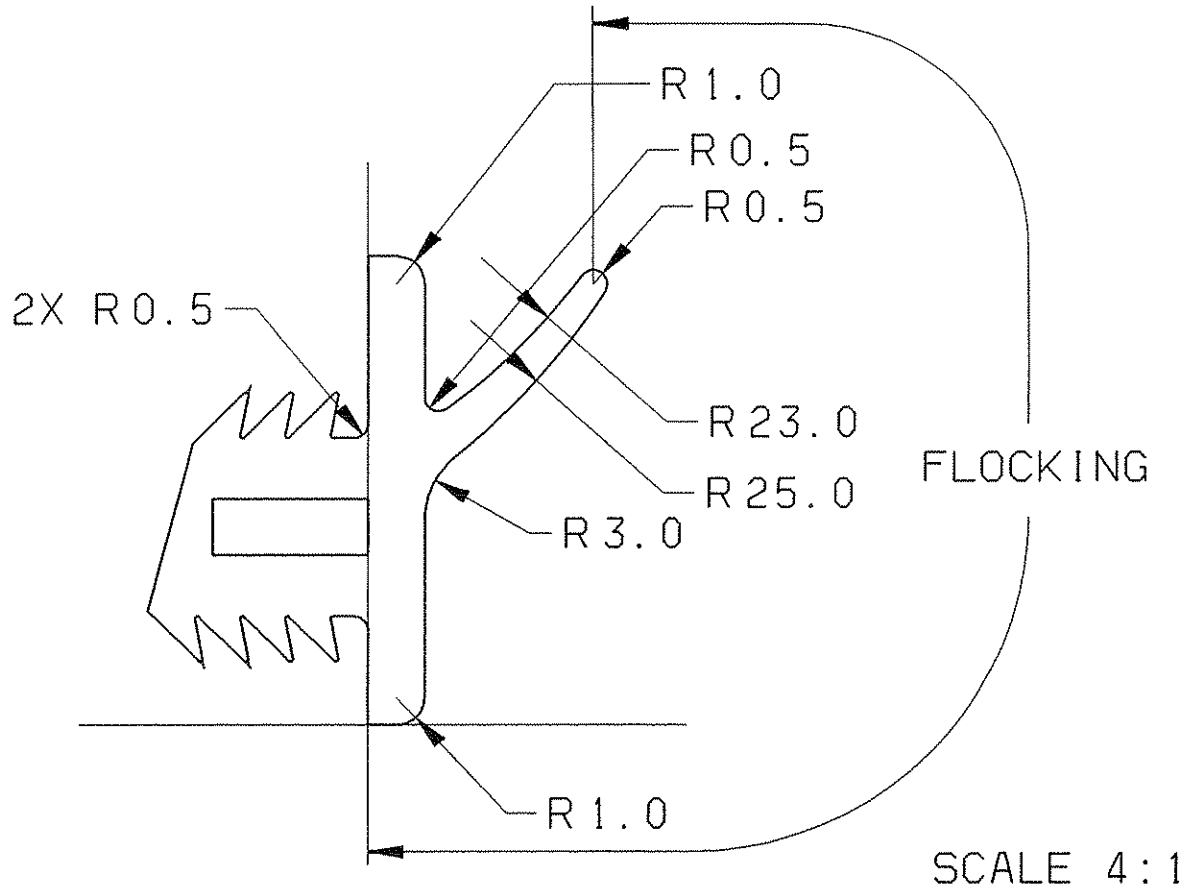
△1 RUBBER PER ASTM D 2000/SAE J200 M5BC 603 A14 B14 C12 F19

2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.

3. TOLERANCES OTHER THAN NOTED PER RUBBER MANUFACTURERS ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P00285-04	03/03/97	MY	INITIAL RELEASE

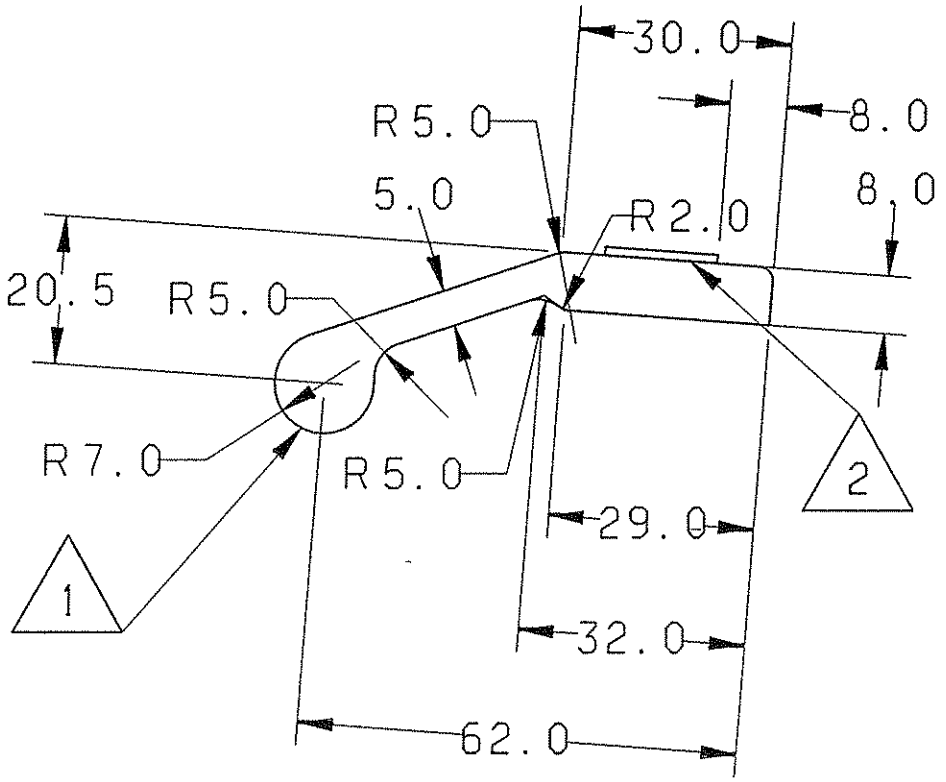
DRAWN	MY	TITLE	DRAWING NUMBER	
APPRV	HFW	EXT-SEAL, SCRAPER, CAB DOOR CENTURY CLASS	48-25230	
DATE	02/25/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. -



CHG	JOB NO	DATE	BY	REVISION
-	P00285-04	02/25/97	MY	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	MY	TITLE: EXT-WEATHERSTRIP, CAB DOOR LWR CENTURY CLASS	DRAWING NUMBER: 48-25232
APPRV	HFW		
DATE	02/25/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT LB/M.	F/L SPEC NO.
1	525.7	1.63	48-25232-000

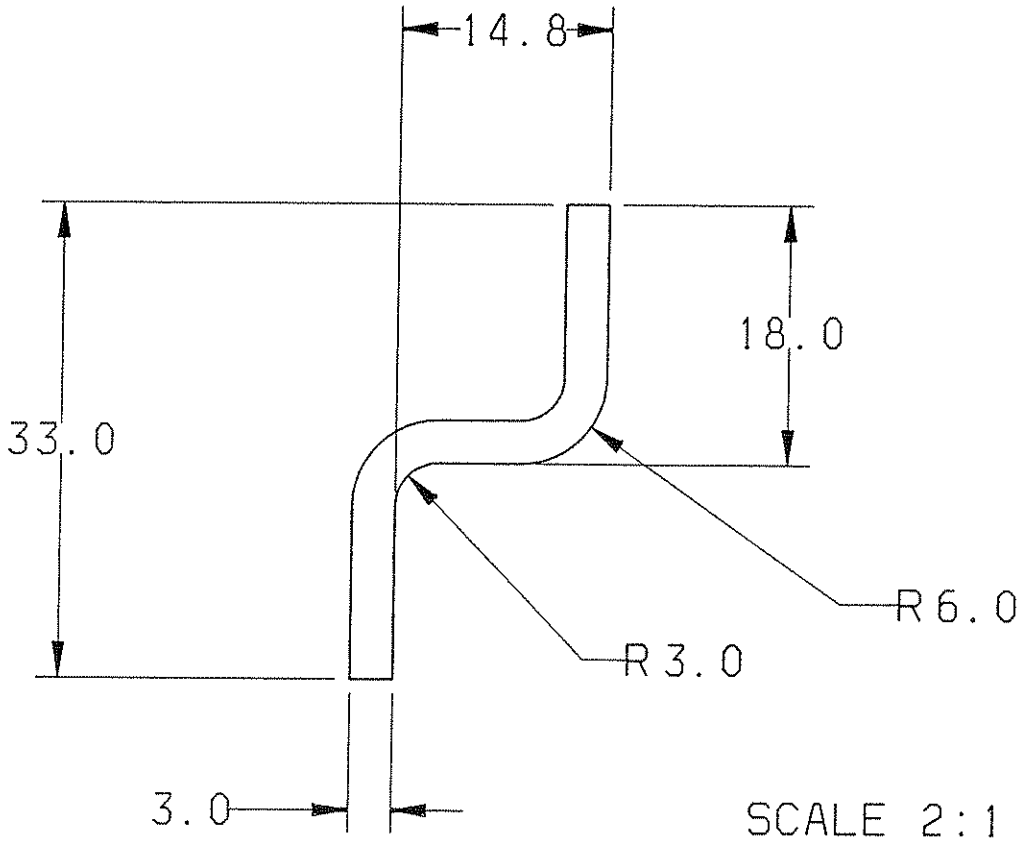
SPECIFICATIONS:

1. EPDM PER ASTM D2000M3BA510A14B13C12F17
2. HEAT ACTIVATED TAPE 15.9 WIDE X 1.19 THICK PER 3M 4987
3. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
4. TOLERANCES OTHER THAN NOTED PER RUBBER MANUFACTURERS ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02326-01	02/25/97	MY	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	GEH	TITLE EXTR-TUNNEL, SIDE, REAR	DRAWING NUMBER 48-25233
APPRV	G.H.		
DATE	11/21/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



SCALE 2:1

MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6005-T5 ALUMINUM	131.8	.78	48-25233-000

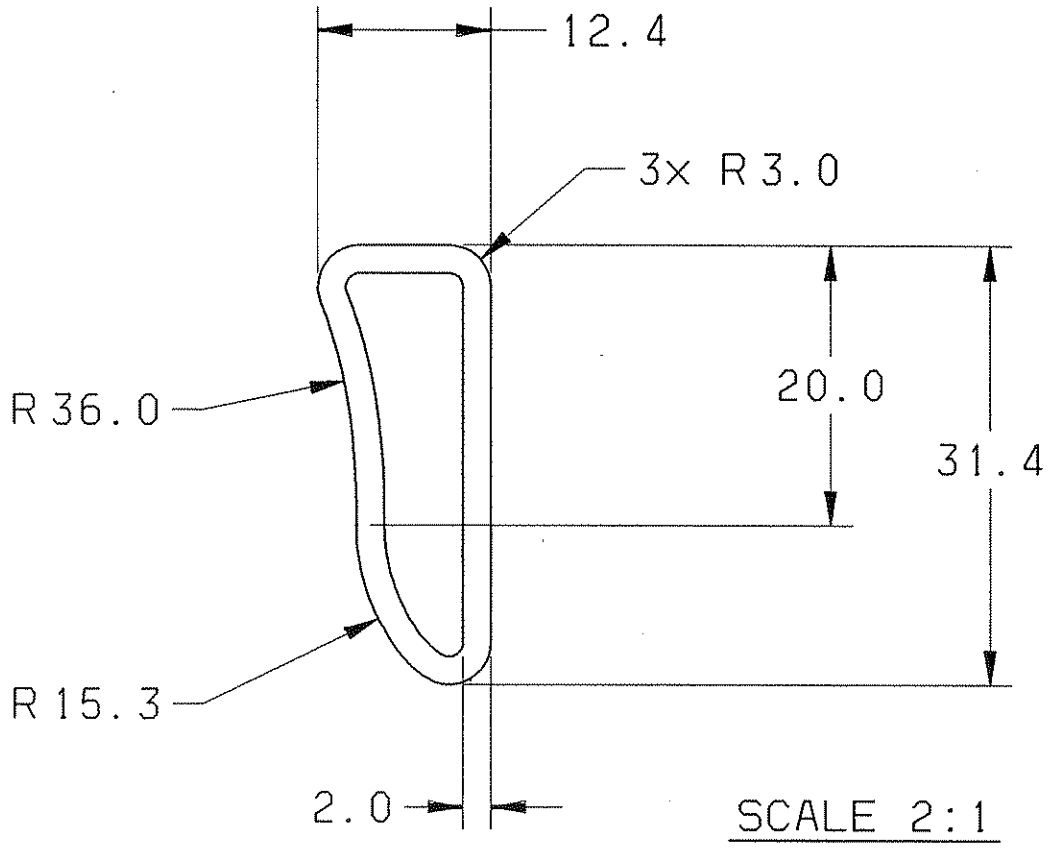
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-10	11/21/97	GEH	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	GEH	TITLE	DRAWING NUMBER	
APPRV	AJF	EXTRN-BRACKET HINGE, MTG	48-25234	
DATE	03/23/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6005-T5 ALUMINUM	0.221	.021	48-25234-000

SPECIFICATIONS:

1. FINISH: NONE
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

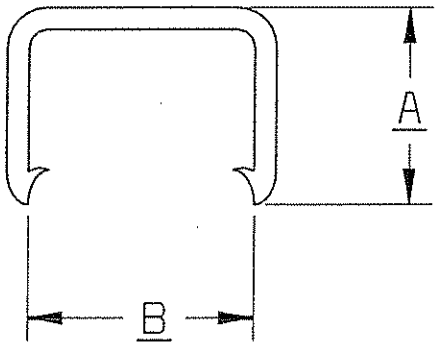
CHG	JOB NO	DATE	BY	REVISION
-	P03447-01	03/23/97	GEH	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	PTF	TITLE	DRAWING NUMBER	
APPRV	AJF	GIMP-DOOR TRIM, INT CAB, ALF STANDARD EDGE	48-25235	
DATE	11/04/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES STANDARD EDGE TRIM.

APPLICATION: PROVIDES PROTECTION FROM SHARP EDGES.



COLOR	TEXTURE	CLIPS	DIMENSIONS		SUPPLIER	FREIGHTLINER
			A	B	TRIM-LOK	PART NUMBER
BLACK	LEATHER	ALUMINUM	.641	.375	1350-B-2 X3/8" ALUM	48-25235-000

ENGINEERING NOTES:

1. MATERIAL: VINYL WITH ALUMINUM CLIPS

CHG	JOB NO	DATE	BY	REVISION
-	P03409-15	11/04/97	PTF	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	JCT	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-VINYL COATED 17 OZ. PER SQUARE YARD	48-25236	
DATE	03/14/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. -

SCOPE: THIS SPECIFICATION COVERS THE REQUIREMENTS FOR VINYL COATED FABRICS.

APPLICATION: FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR DEEP DRAWN MOLDED HEADLINERS AND SIDEWALLS.

SPECIFICATION NUMBERS:

PATTERN	COLOR	MANUFACTURERS NUMBER		FREIGHTLINER SPECIFICATION NUMBER
		MRN		
FORMLIGHT FR 60 (ELK) (NON-PERFORATED)	SLATE GRAY			48-25236-700
FORMLIGHT FR 60 (DIAMOND) (PERFORATED)	SLATE GRAY			48-25236-710
FORMLIGHT FR 60 (ELK) (NON-PERFORATED)	ASCOT GRAY			48-25236-720

ENGINEERING REQUIREMENTS:

1.0 GENERAL REQUIREMENTS

1.1 THE FABRIC BACKING, MADE OF NYLON, SHALL SATISFY THE REQUIREMENTS IN SECTION 2.0.

1.2 THE COVERING SHALL BE PLASTICIZED AND PIGMENTED, EXPANDED POLYVINYL CHLORIDE RESIN, OR COPOLYMERS THEREOF, SO AS TO BE THE PROPER AND UNIFORM GAGE, FLEXIBLE, FREE FROM TACKINESS AND SUITABLE HAND.

1.3 THE COLOR, GRAIN, AND FINISH SHALL MATCH THE APPROVED MASTER SAMPLE.

CHG	JOB NO	DATE	BY	REVISION
-	P02301-01	03/14/97	JCT	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	JCT	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-VINYL COATED 17 OZ. PER SQUARE YARD	48-25236	
DATE	03/14/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. -
CATIA ORIGINAL				

2.0 SPECIFIC REQUIREMENTS:

PROPERTY	TEST METHOD	REQUIREMENTS
WEIGHT, (OZ,SQ/YD)	ASTM D751	16.7±1.5
THICKNESS, TOTAL INCH	ASTM D751	.028±.003
THICKNESS, SKIN MINIMUM INCH		.008
BREAKING STRENGTH LBS., MIMIMUM WARP/FILL	ASTM D751	70/60
TEAR STRENGTH LBS., MINIMUM WARP/FILL	ASTM D1117 TRAPEZOID METHOD	16/16
STRETCH, %, MINIMUM WARP FILL	SAE J855	 W 68±10 F 200±35
SET, %, MAXIMUM WARP/FILL	CFFA-15	10/36
COATING ADHESION LBS., MINIMUM WARP/FILL	CFFA-3	3.5/3.5
FLAMMABILITY (NOTE 6)	SAE J369	PASS (SE)
COLD CRANKING RESISTANCE	SAE J323	-25°F
BLOCKING, MAXIMUM RATING	CFFA-7	2
CROCKING RESISTANCE (WET & DRY)	CFFA-7	GOOD
ABRASION RESISTANCE WT. LOSS (500 REV./500G./H18)	FED. STD. 191A METHOD 5306 TABOR	0.100G (NOTE 5)

NOTES:

1. ASTM = AMERICAN SOCIETY FOR TESTING AND MATERIALS
2. CFFA = CHEMICAL FABRICS AND FILM ASSOCIATION
3. SAE = SOCIETY OF AUOMOTIVE ENGINEERS
4. FED STD = FEDERAL TEST METHOD STD. NO. 191A
5. NO VISIBLE LOSS OF COLOR OR GRAIN PATTERN IS ALLOWED
6. THIS MATERIAL MUST ALSO PASS FMVSS NO. 302, FLAMMABILITY OF INTERIOR MATERIALS.

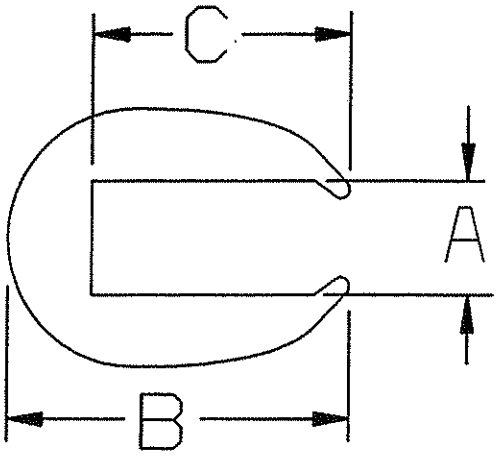
3.0 APPROVED SOURCE

SUPPLIERS SHALL HAVE THEIR MATERIAL TESTED IN ACCORDANCE WITH THIS SPECIFICATION BY AN INDEPENDANT LABORATORY AND THE RESULTS SUBMITTED FREIGHTLINER PURCHASING.

NO SHIPPING SHALL BE MADE BY A NEW SOURCE UNTIL THE MATERIAL HAS BEEN APPROVED BY FREIGHTLINER ENGINEERING.

CHG	JOB NO	DATE	BY	REVISION
-	P02301-01	03/14/97	JCT	INITIAL RELEASE

DRAWN	DLW	TITLE	DRAWING NUMBER	
APPRV	AJF	EXTRUSION-RUBBER EDGE TRIM	48-25237	
DATE	03/19/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. B



MAT'L	VENDOR	VENDOR PART #	AREA SQ. IN.	DIM. A	DIM. B	DIM. C	F/L SPEC NO.
EPDM	TRIM LOK	X1003	0.054	.125	.375	.271	48-25237-000
EPDM	TRIM LOK	X1004	0.091	.187	.468	.312	48-25237-001

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES TO CONFORM WITH RMA CLASS 2 COMMERCIAL STANDARDS.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-A6	03/19/97	DLW	INITIAL RELEASE
A	PB4501-R9	07/02/97	MBL	REVISED UOM TO ENGLISH ILO METRIC
B	P05786-01	07/25/98	DW	TABULATED DIMENSIONS, ADDED -001

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FOAM-INSULATION, POLYETHER URETHANE, MYLAR FACED	48-25238	
DATE	03/20/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES

SCOPE: THIS SPECIFICATION IDENTIFIES A FOAM SHEET OF POLYETHER URETHANE, WITH AN IMPERVIOUS FILM FACING.

APPLICATION: ENGINE TUNNEL INSULATION.

THICKNESS INCHES		FREIGHTLINER PART NUMBER
.25		48-25238-025

ENGINEERING NOTES:

1. PHYSICAL PROPERTIES: (to be added when available)

TENSILE STRENGTH @ 73°F (PSI)	-
FLEXURAL MODULUS @ 73°F (PSI X 10)	-
HARDNESS @ 73°F, ROCKWELL (R SCALE), MIN.	-
HEAT DEFLECTION TEMP @ 264 PSI (ANNEALED) F°	-
NOTCHED IZOD @ 73°F (FT-LB/IN)	-
NOTCHED IZOD @ -40°F (FT-LB/IN)	-

2. MUST PASS FEDERAL MOTOR VEHICLE SAFETY STANDARD NO.302, FLAMMABILITY OF INTERIOR MATERIALS.
3. SUPPLIER: EAR Specialties (PRODUCT NUMBER E-0-RM-10-25CM)

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-A	03/20/97	DAJ	INITIAL RELEASE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FOAM-CUSHION SEAT	48-25239	
DATE	03/21/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES 2.55 - 2.85 PCF FLEXIBLE FOAM MATERIAL.

APPLIATION: SEAT CUSHION.

	THICKNESS		FREIGHTLINER SPEC NUMBER
	4.000		48-25239-400
(A)	3.000		48-25239-300

TYPICAL PROPERTIES:

1. MATERIAL TO CONFORM WITH APPLICABLE PROVISIONS OF ASTM D3574:

DENSITY (PCF)	2.55 - 2.85
COMPRESSION SET (% MAX) (% OF ORIGINAL HEIGHT @ 50% INITIAL DEFLECTION, 70°C FOR 22 HRS.)	3
TENSILE STRENGTH (PSI MIN)	15

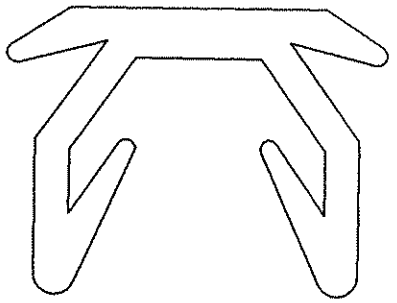
2. MUST MEET APPLICABLE PROVISIONS OF FMVSS #302, FLAMABILITY OF INTERIOR MATERIALS.

3. APPROVED SOURCE: CRAIN INDUSTRIES
ALTERNATE SOURCES ACCEPTABLE WITH ENGINEERING APPROVAL.

CHG	JOB NO	DATE	BY	REVISION
-	P01710-06	03/21/97	DAJ	INITIAL RELEASE
A	P08170-08	08/31/99	SDS	ADDED -300

ADRIENNE CHILBERG

DRAWN	MBL	TITLE WEATHERSTRIPPING, RB ALF FIRE TRUCKS	DRAWING NUMBER 48-25240
APPRV	AJF		
DATE	03/26/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	F/L SPEC NUMBER
1	48-25240-000

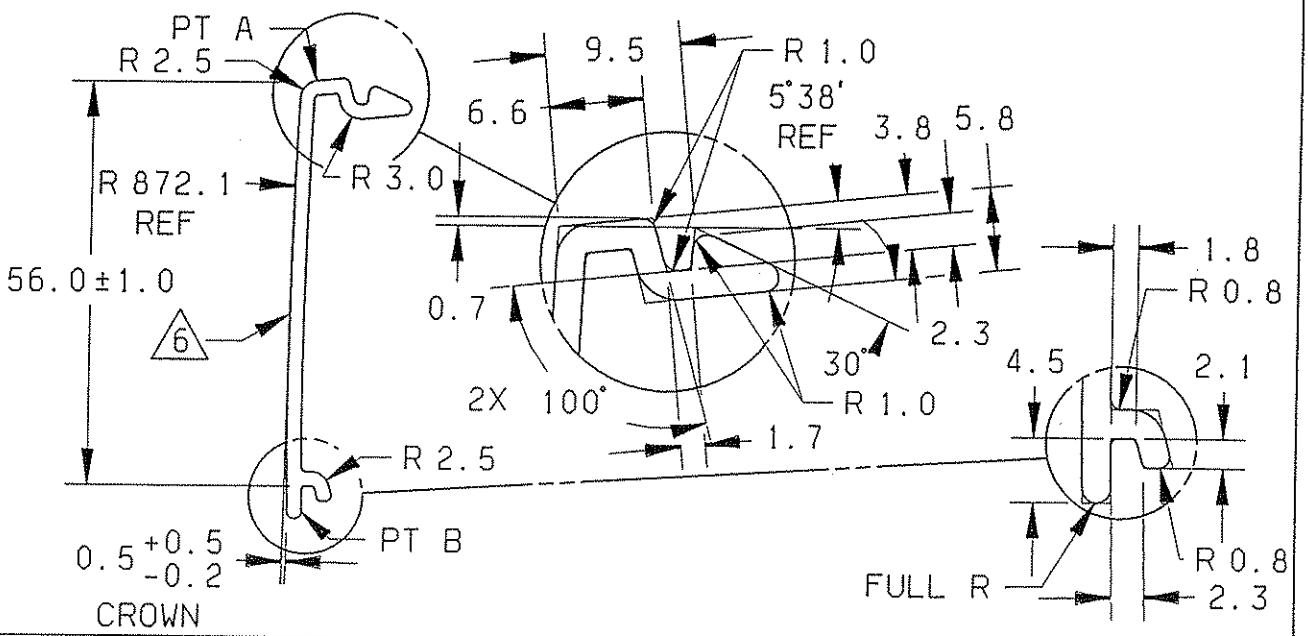
SPECIFICATIONS:

1. FLOCKED RUBBER STD PROD #AS-1340
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-G4	03/26/97	MBL	INITIAL RELEASE

HORTENNE CHILBERG

DRAWN	PT	TITLE	DRAWING NUMBER	
APPRV	CHB	EXTRUSION-COVER, RAIL MECH CENTURY CLASS LOUNGE CAB	48-25241	
DATE	03/25/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
1	.263	.010	48-25241-000 48-25241-001 2

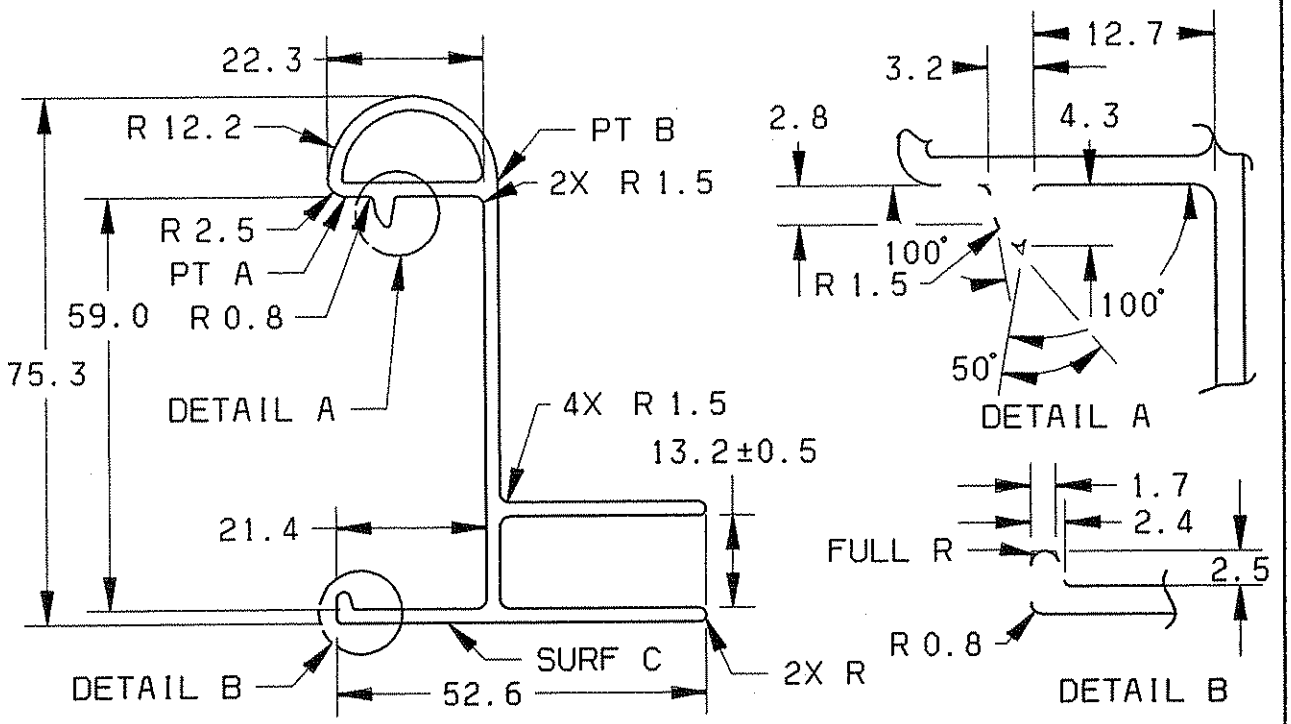
SPECIFICATIONS:

1. MATERIAL: EXTRUDABLE ABS PLASTIC. F/L ENGINEERING APPROVED PRODUCTS INCLUDE:
   - A - G.E. "CYCOLAC PLN 6000"
   - B - SAMSUNG CHEIL IND. "STAREX SP0160"
   - C - MONSANTO "ABS786-1084"
   - D - THAI PETRO CHEMICAL "PORENE SP"
2. COLOR: -000 SHADOW GRAY PER F/L SPEC 49-00091-002
   -001 SLATE GRAY PER F/L SPEC 49-00091-001
3. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY SCALE.
4. 2.0MM ±0.3 NOM WALL THICKNESS UNLESS OTHERWISE INDICATED.
5. INSIDE FILLET RADII=0.5 ±0.3 UNLESS OTHERWISE INDICATED.
6. OUTER SURFACE FROM PT A TO B IS AN UNPAINTED COSMETIC SURFACE AND MUST BE SMOOTH, LOW GLOSS AND BE FREE OF NICKS, SCRATCHES, ETC AS DEFINED BY F/L QUALITY ASSURANCE
7. TOLERANCES UNLESS SPEC'D: LINEAR±0.5, RADII±0.3, ANGLE±3°

CHG	JOB NO	DATE	BY	REVISION
-	P01636-01	03/25/97	PT	INITIAL RELEASE
A	P01636-38	08/28/97	RJP	REVISED NOTE 2

ADRIENNE CHILBERG

DRAWN	PT	TITLE	DRAWING NUMBER
APPRV	CHB	EXTRSN-RAIL, MTG, LATCH MECH CENTURY CLASS LOUNGE CAB	48-25242
DATE	03/25/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



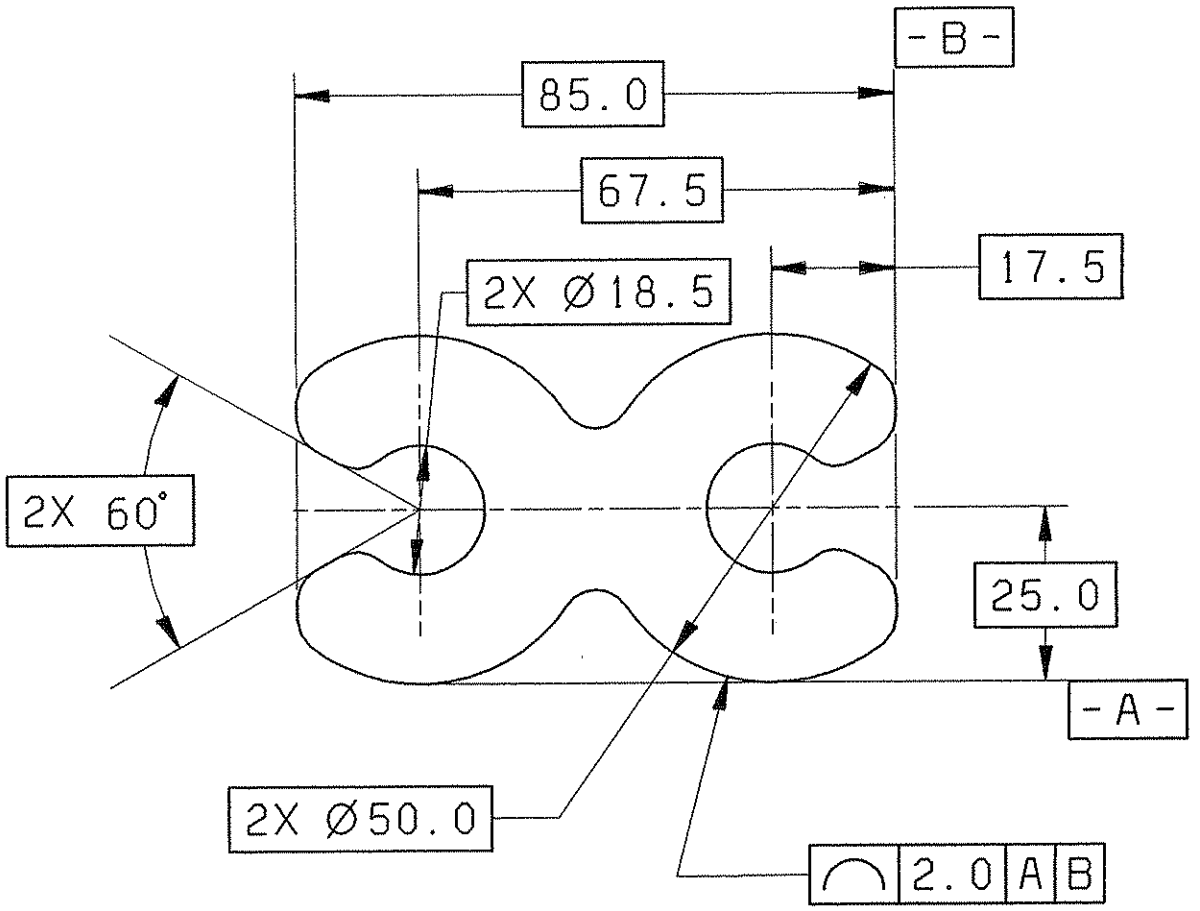
MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6063-T5	0.643	0.063	48-25242-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.
4. ALL FILLET RADII=0.5R ±0.3 UNLESS OTHERWISE INDICATED.
5. 2.0MM NOMINAL WALL THICKNESS UNLESS OTHERWISE INDICATED.
6. SURFACE FROM PT A TO B AND SURFACE C ARE COSMETIC EXTERIOR SURFACES AND MUST BE FREE OF NICKS, SCRATCHES, AND OTHER MARKS AS DEFINED BY F/L QUALITY ASSURANCE.

CHG	JOB NO	DATE	BY	REVISION
-	P01636-01	03/25/97	PT	INITIAL RELEASE

DRAWN	LWA	TITLE EXTRUSION-ALUMINUM BAT BOX BRKT STANDOFF	DRAWING NUMBER 48-25243
APPRV	BRG		
DATE	04/03/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	4.315	0.4315	48-25243-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.
4. ALL UNSPECIFIED RADII ARE 5MM.

CHG	JOB NO	DATE	BY	REVISION
-	P00811-01	04/03/97	LWA	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	HOSE-REINFORCED, FIBER, DIESEL FUEL	48-25245	
DATE	04/07/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

Scope: This specification identifies a fiber reinforced, fiber covered, high temperature hose.

Application: For use in diesel fuel lines.

HOSE SIZE	ID (INCHES)	OD REF (INCHES)	MIN BURST PRESSURE (PSI)	MAX WORK PRESSURE (PSI)	MIN BEND RADIUS	FREIGHTLINER SPECIFICATION NUMBER
6	.367/.391	.594/.656	1200	300	3	48-25245-006
8	.492/.523	.750/.812	1200	300	4	48-25245-008

Engineering Notes:

1. Material: Meets or exceeds all requirements of Parker Hannifin's hose specification HS-636.

2. Construction: Inner tube - Synthetic rubber
   Reinforcement - Single fiber braid
   Cover - Black fiber

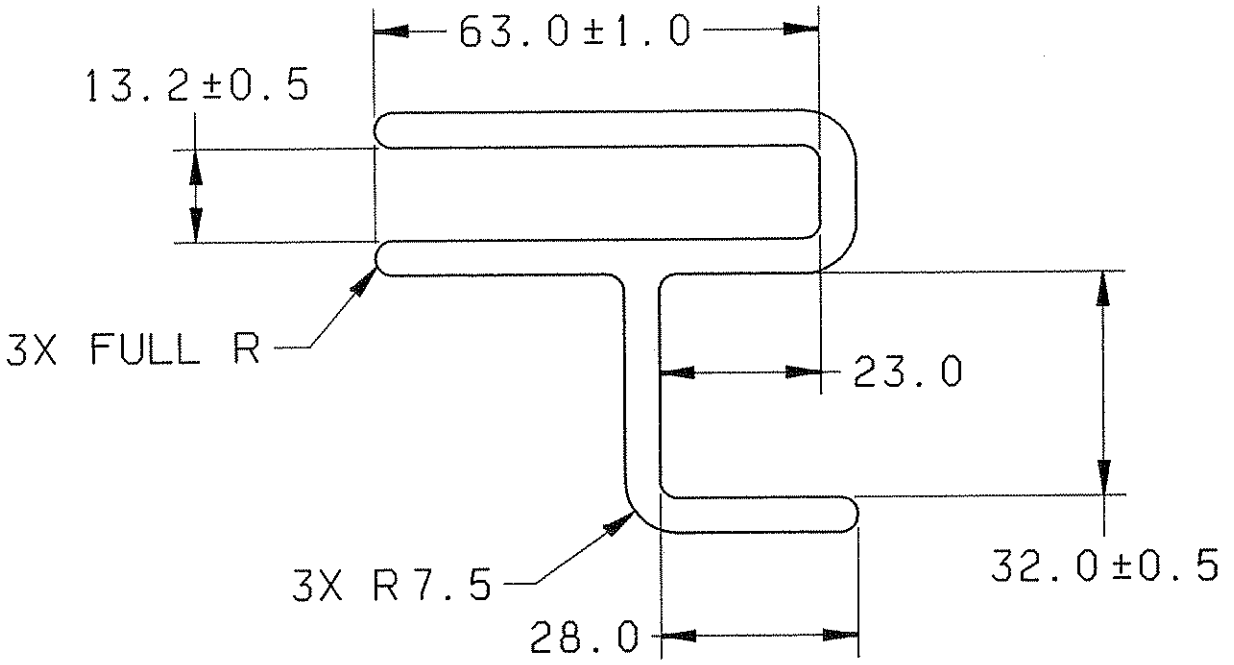
3. Temperature range: -40°C to +150°C (-40°F to +302°F)

4. Approved Vendor: Parker Hannifin, 636 Hose

CHG	JOB NO	DATE	BY	REVISION
-	P01926-01	04/07/97	DAJ	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	PT	TITLE	DRAWING NUMBER
APPRV	CHB	EXTRSN-BRKT, END, BUNK PNL CENTURY CLASS LOUNGE CAB	48-25246
DATE	03/25/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6063-T5	1.602	0.157	48-25246-000

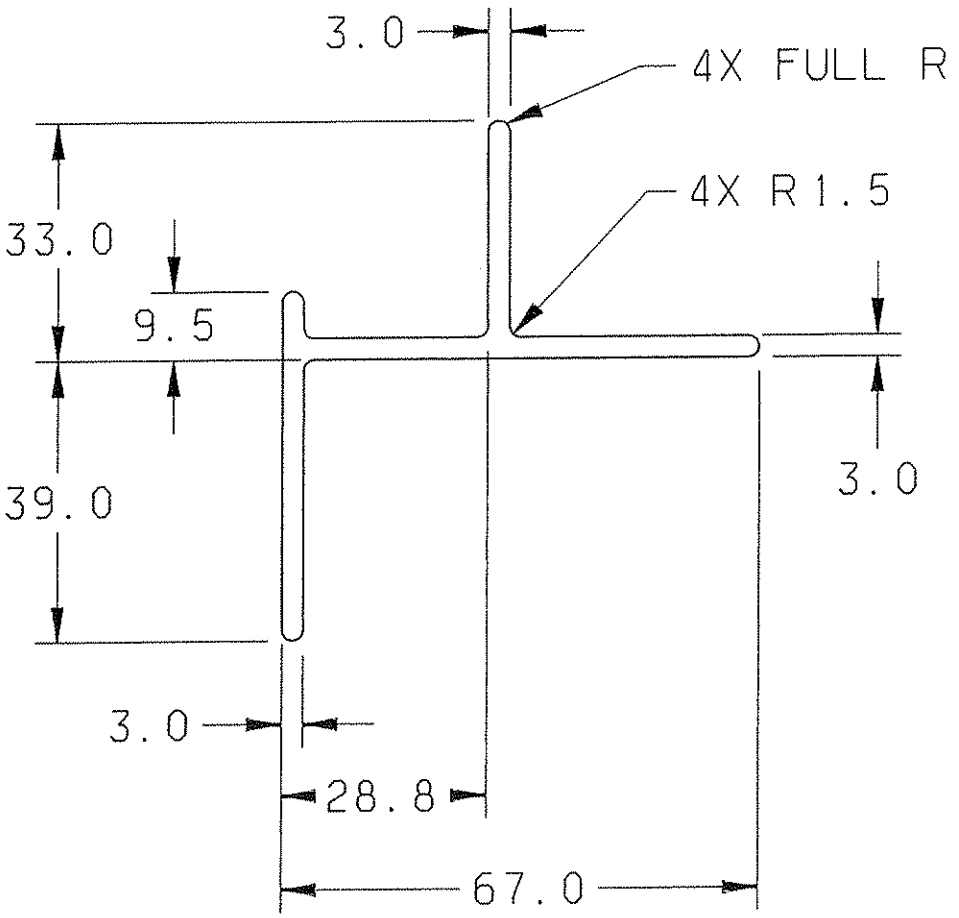
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.
4. ALL FILLET RADII= 2.5R ±0.3 UNLESS OTHERWISE INDICATED.
5. 5.0MM NOMINAL WALL THICKNESS UNLESS OTHERWISE INDICATED.

CHG	JOB NO	DATE	BY	REVISION
-	P01636-01	03/25/97	PT	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	RJP	TITLE	DRAWING NUMBER
APPRV	CHB	EXTRUSION-BRKT SUPT, PARTITION CENTURY CLASS, DRIVER'S LOUNGE	48-25248
DATE	04/17/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6 OR 6063-T6 ALUMINUM EXTRUSION	3.10	0.30	48-25248-000

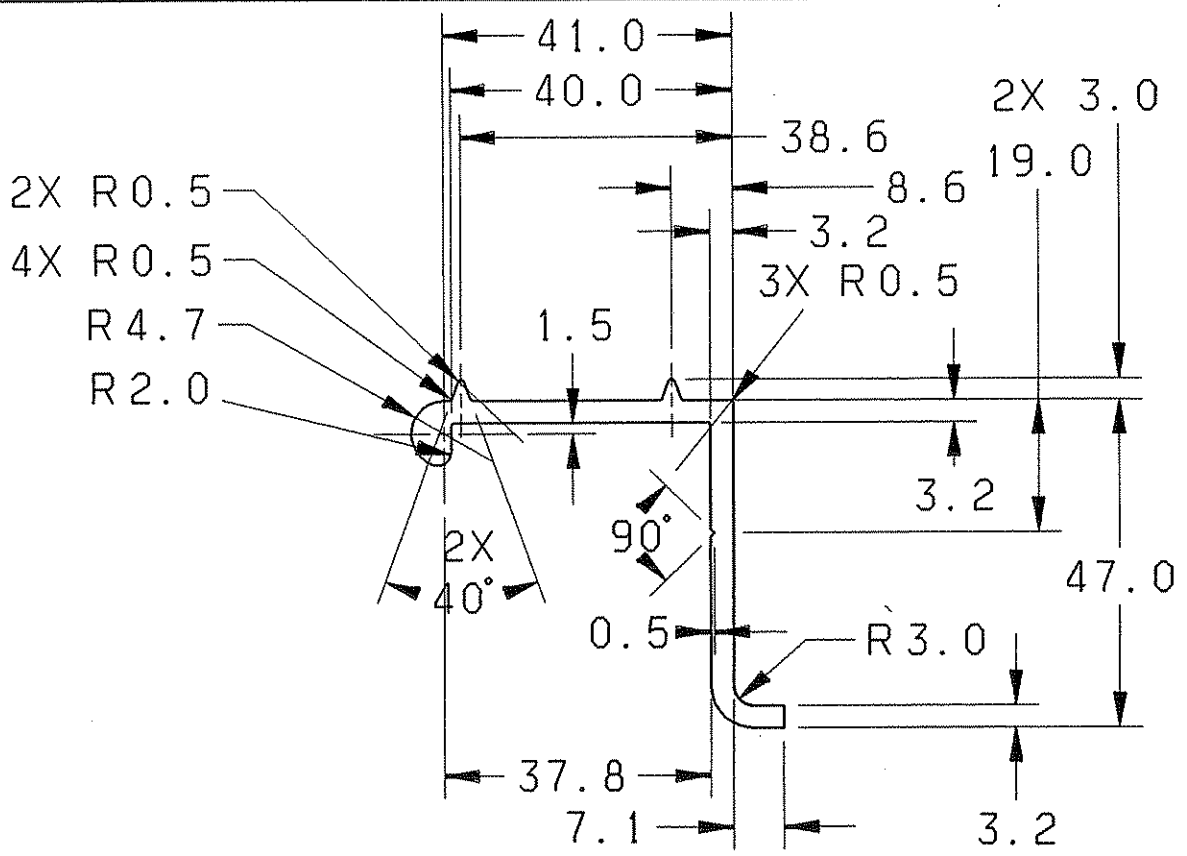
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P01636-04	04/17/97	RJP	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	HSB	TITLE	DRAWING NUMBER	
APPRV	BRG	EXTRUSION-ALUM EDGE, DECK PLATE	48-25250	
DATE	04/29/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. IN.	WEIGHT LB/FT	F/L SPEC NO.
6061-T6	.571	.666	48-25250-000

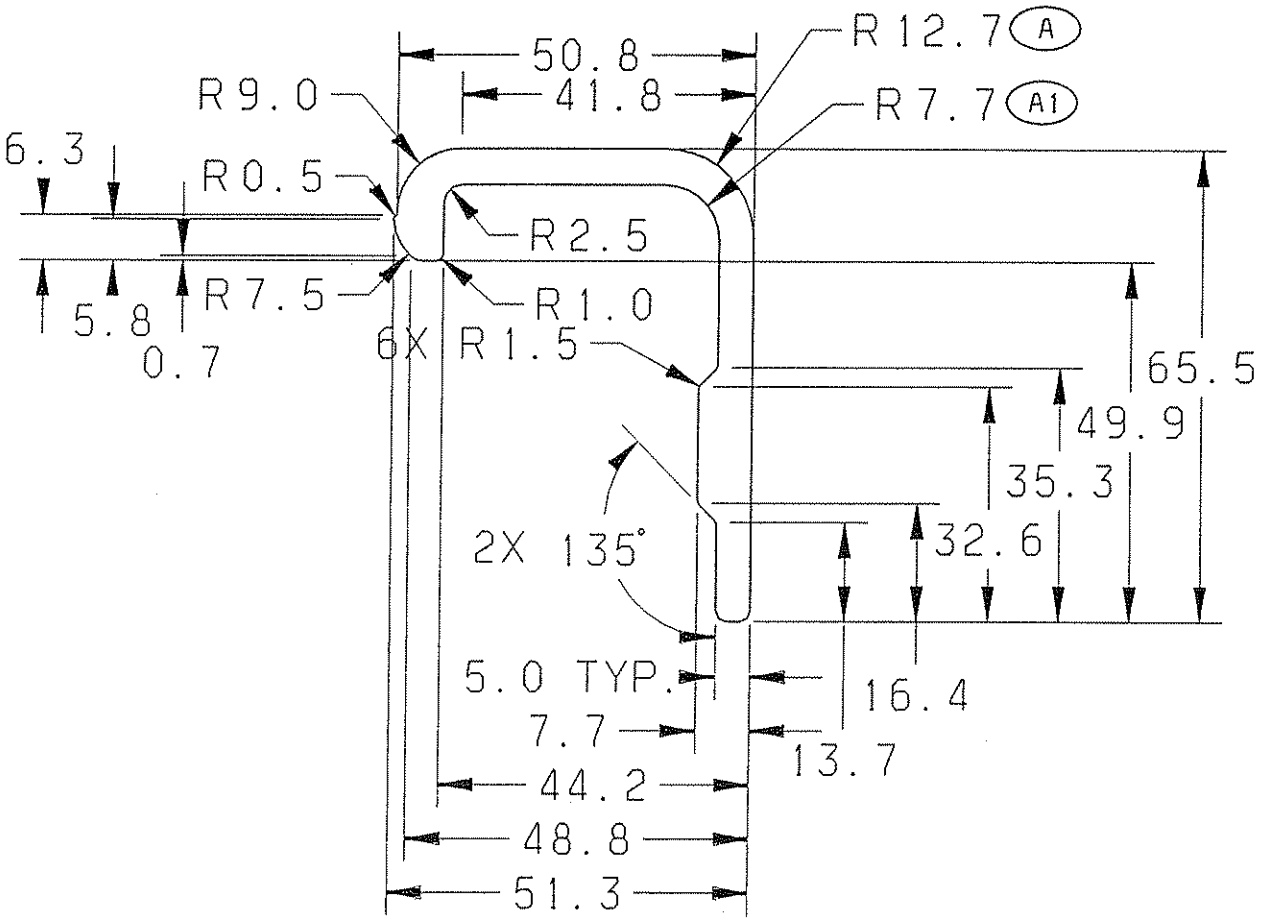
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P00885-01	04/29/97	HSB	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	PTS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION-STRIKER, TABLE	48-25251
DATE	06/03/97		
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. B



MATERIAL	AREA SQ. MM.	WEIGHT LB/IN	F/L SPEC NO.
6005-T5 (B)	650.3	0.03	48-25251-000

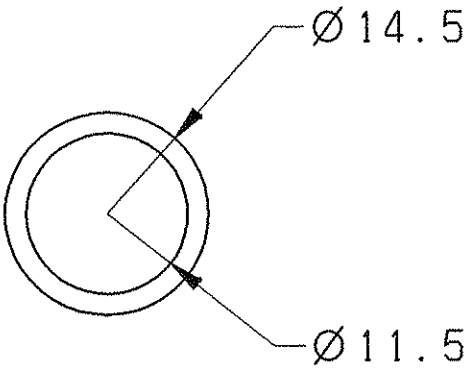
SPECIFICATIONS:

1. FINISH: AS EXTRUDED.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P01813-04	06/03/97	PTS	INITIAL RELEASE
A	P01813-16	06/12/97	PTS	REVISED DIMENSION TO R12.7, WAS R1.5
A1				REVISED DIMENSION TO R7.7, WAS R5.0
B	P01813-29	10/03/97	PTS	REVISED MATERIAL; WAS 6061-T6

ADRIENNE CHILBERG

DRAWN	AJD	TITLE	DRAWING NUMBER	
APPRV	TAL	EXTRUSION-AL SLEEVE-BUMPER BEAM ISOLATOR	48-25252	
DATE	04/24/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	0.096	0.01	48-25252-000

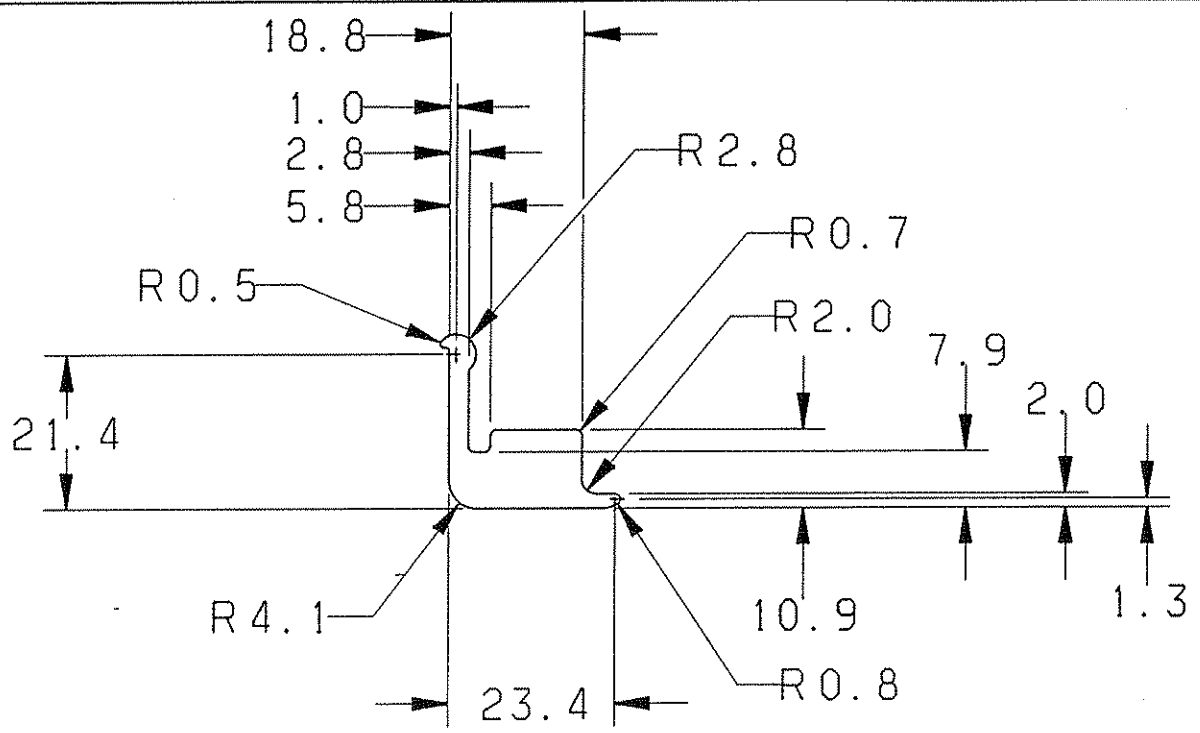
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02126-01	04/24/97	AJD	INITIAL RELEASE

HURIENNE CHILBERG

DRAWN	DLW	TITLE	DRAWING NUMBER
APPRV	GEH	EXTRUSION ALUMINUM	48-25253
DATE	08/26/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ MM	WEIGHT LB/M	F/L SPEC NO.
6063-T6	244.6	1.4	48-25253-000

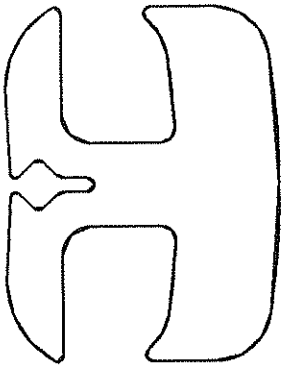
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-10	08/26/97	DW	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	MBL	TITLE WEATERSTRIP CAB GLASS ALF 2-PIECE DIVISION BAR	DRAWING NUMBER 48-25254
APPRV	DEK		
DATE	05/20/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	F/L SPEC NO.
SBR (STYRENE BUTADIENE RUBBER)	48-25254-000

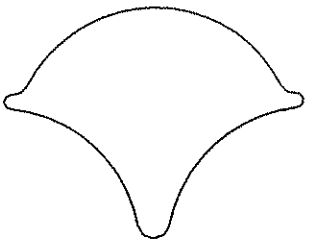
SPECIFICATIONS:

1. FINISH PER STANPRO PART #AS-1488
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-K5	05/20/97	MBL	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	MBL	TITLE LOCK STRIP 2-PIECE FOR ALF CAB GLASS	DRAWING NUMBER 48-25255
APPRV	DEK		
DATE	05/19/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	F/L SPEC NO.
SBR (STYRENE BUTADIENE RUBBER)	48-25255-000

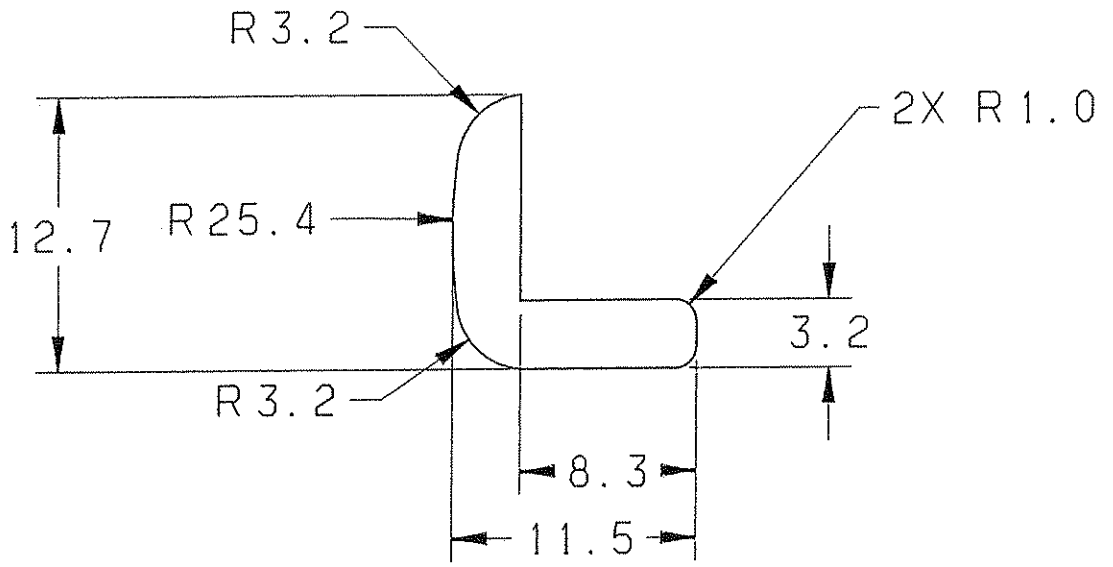
SPECIFICATIONS:

1. FINISH: PER STANPRO #AS-937
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-K5	05/19/97	MBL	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	STH	TITLE	DRAWING NUMBER	
APPRV	AJF	TRIM-OUTER, WINDOW, UPPER	48-25256	
DATE	05/12/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6063-T6	0.093	0.093	48-25256-000

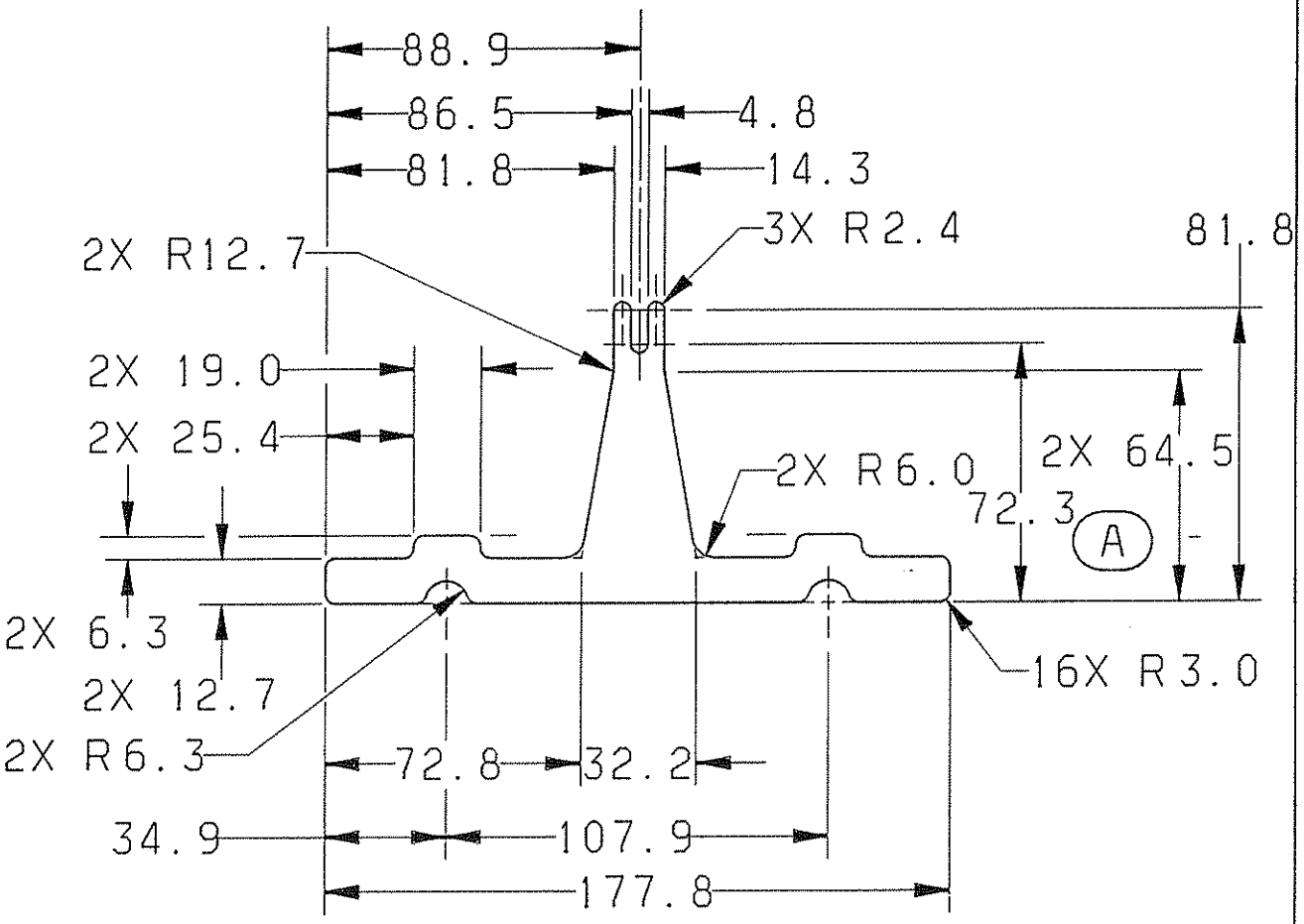
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-M9	05/20/97	STH	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DW	TITLE	DRAWING NUMBER
APPRV	AJF	EXTRUSION RESTRAINT, DOOR	48-25257
DATE	06/04/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. A
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6063-T6	5.790	0.565	48-25257-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-01	06/04/97	DW	INITIAL RELEASE
A	P02211-23	12/17/97	DW	DIM. 72.3 WAS 61.2

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-VINYL COATED	48-25264	
DATE	06/25/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION COVERS THE REQUIREMENTS FOR VINYL COATED FABRIC.

APPLICATION: FOR USE IN INTERIOR TRIM AS COVERING FOR DOOR PANELS PRODUCED BY THE IN MOLD LAMINATING PROCESS.

SPECIFICATION NUMBERS:

COLOR	MANUFACTURERS NUMBER		FREIGHTLINER SPECIFICATION NUMBER
	CANADIAN GENERAL		
SHADOW GRAY	97101-02		48-25264-800

ENGINEERING REQUIREMENTS:

1.0 GENERAL REQUIREMENTS

1.1 THE FABRIC BACKING, MADE OF TEXTURIZED POLYESTER KNIT, SHALL SATISFY THE REQUIREMENTS IN SECTION 2.0.

1.2 THE COVERING SHALL BE PLASTICIZED AND PIGMENTED, EXPANDED POLYVINYL CHLORIDE RESIN, OR COPOLYMERS THEREOF, SO AS TO BE THE PROPER AND UNIFORM GAGE, FLEXIBLE, FREE FROM TACKINESS AND SUITABLE HAND.

1.3 THE COLOR, GRAIN, AND FINISH SHALL MATCH THE APPROVED MASTER SAMPLE.

CHG	JOB NO	DATE	BY	REVISION
-	P00726-03	06/25/97	DAJ	INITIAL RELEASE
A	P00726-08	08/28/97	DAJ	REVISED NOTE 2.

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-VINYL COATED	48-25264	
DATE	06/25/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. A

2.0 SPECIFIC REQUIREMENTS:

PROPERTY	TEST METHOD	REQUIREMENTS
THICKNESS, TOTAL INCH	ASTM D751	.035 -.045 (.89-1.14mm)
THICKNESS, SKIN MINIMUM INCH		.008 - .012
BREAKING STRENGTH N,min, MIMIMUM WARP/FILL	ASTM D751	445/445
TEAR STRENGTH N,min, MINIMUM WARP/FILL	ASTM D1117 TRAPEZOID METHOD	115/115
STRETCH, %, RANGE	SAE J855	
WARP		W 17-63
FILL		F 34-95
SET, %, RANGE WARP/FILL	CFFA-15	W 0-15 F 0-20
COATING ADHESION N/25mm MINIMUM WARP/FILL	ISO 2411,300mm/min	15.3/13.1
FLAMMABILITY (NOTE 7)	SAE J369	PASS (SE)

NOTES:

1. ASTM = AMERICAN SOCIETY FOR TESTING AND MATERIALS
2. CFFA = CHEMICAL FABRICS AND FILM ASSOCIATION
3. SAE = SOCIETY OF AUOMOTIVE ENGINEERS
4. FED STD = FEDERAL TEST METHOD STD. NO. 191A
5. ISO = INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
6. NO VISIBLE LOSS OF COLOR OR GRAIN PATTERN IS ALLOWED
7. THIS MATERIAL MUST ALSO PASS FMVSS NO. 302, FLAMMABILITY OF INTERIOR MATERIALS.

3.0 APPROVED SOURCE

SUPPLIERS SHALL HAVE THEIR MATERIAL TESTED IN ACCORDANCE WITH THIS SPECIFICATION BY AN INDEPENDANT LABORATORY AND THE RESULTS SUBMITTED FREIGHTLINER PURCHASING.

NO SHIPPING SHALL BE MADE BY A NEW SOURCE UNTIL THE MATERIAL HAS BEEN APPROVED BY FREIGHTLINER ENGINEERING.

CHG	JOB NO	DATE	BY	REVISION
-	P00726-03	06/25/97	DAJ	INITIAL RELEASE
A	P00726-08	08/28/97	DAJ	REVISED NOTE 2.

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-VINYL COATED	48-25265	
DATE	06/25/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. B
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION COVERS THE REQUIREMENTS FOR A LAMINATE CONSISTING OF A PVC TOP SKIN WITH PP FOAM BACKING.

APPLICATION: FOR USE IN INTERIOR TRIM PANELS PRODUCED BY IN MOLD LAMINATING.

SPECIFICATION NUMBERS:

COLOR	MANUFACTURERS NUMBER		FREIGHTLINER SPECIFICATION NUMBER
	CANADIAN GENERAL		
SHADOW GRAY	97101-01		48-25265-800

ENGINEERING REQUIREMENTS:

1.0 GENERAL REQUIREMENTS

1.1 THE FABRIC BACKING, MADE OF A PVC TOP SKIN WITH PP FOAM BACKING, SHALL SATISFY THE REQUIREMENTS IN SECTION 2.0.

1.2 THE COVERING SHALL BE PLASTICIZED AND PIGMENTED, EXPANDED POLYVINYL CHLORIDE RESIN, OR COPOLYMERS THEREOF, SO AS TO BE THE PROPER AND UNIFORM GAGE, FLEXIBLE, FREE FROM TACKINESS AND SUITABLE HAND.

1.3 THE COLOR, GRAIN, AND FINISH SHALL MATCH THE APPROVED MASTER SAMPLE.

CHG	JOB NO	DATE	BY	REVISION
-	P00724-05	06/25/97	DAJ	INITIAL RELEASE
A	P00726-08	08/28/97	DAJ	REVISED VENDOR P/N AND NOTE 2. ALSO PP WAS TPO.
B	P00724-08	09/08/99	ESC	REVISED REQUIREMENTS FROM INCHES TO MM.

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-VINYL COATED	48-25265	
DATE	06/25/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. B
CATIA ORIGINAL				

2.0 SPECIFIC REQUIREMENTS:

PROPERTY	TEST METHOD	REQUIREMENTS
THICKNESS, TOTAL MM	ASTM D751	2.5 ±.25 MM
THICKNESS, SKIN MINIMUM MM		.584
TENSILE STRENGTH MPa,min	ASTM D3574	0.95
ELONGATION (%,min)		150
TEAR STRENGTH kN/m,min,	ASTM D1004	4.0
COATING ADHESION	FLTM BI106-01,METHOD C	NO COATING DELAM.
FLAMMABILITY mm/min (max)	SAE J369	100

NOTES:
1. ASTM = AMERICAN SOCIETY FOR TESTING AND MATERIALS
2. CFFA = CHEMICAL FABRICS AND FILM ASSOCIATION
3. SAE = SOCIETY OF AUOMOTIVE ENGINEERS
4. FED STD = FEDERAL TEST METHOD STD. NO. 191A
5. ISO = INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
6. FLTM = FORD LABORATORY TEST METHOD
7. NO VISIBLE LOSS OF COLOR OR GRAIN PATTERN IS ALLOWED
8. THIS MATERIAL MUST ALSO PASS FMVSS NO. 302, FLAMMABILITY OF INTERIOR MATERIALS.

3.0 APPROVED SOURCE

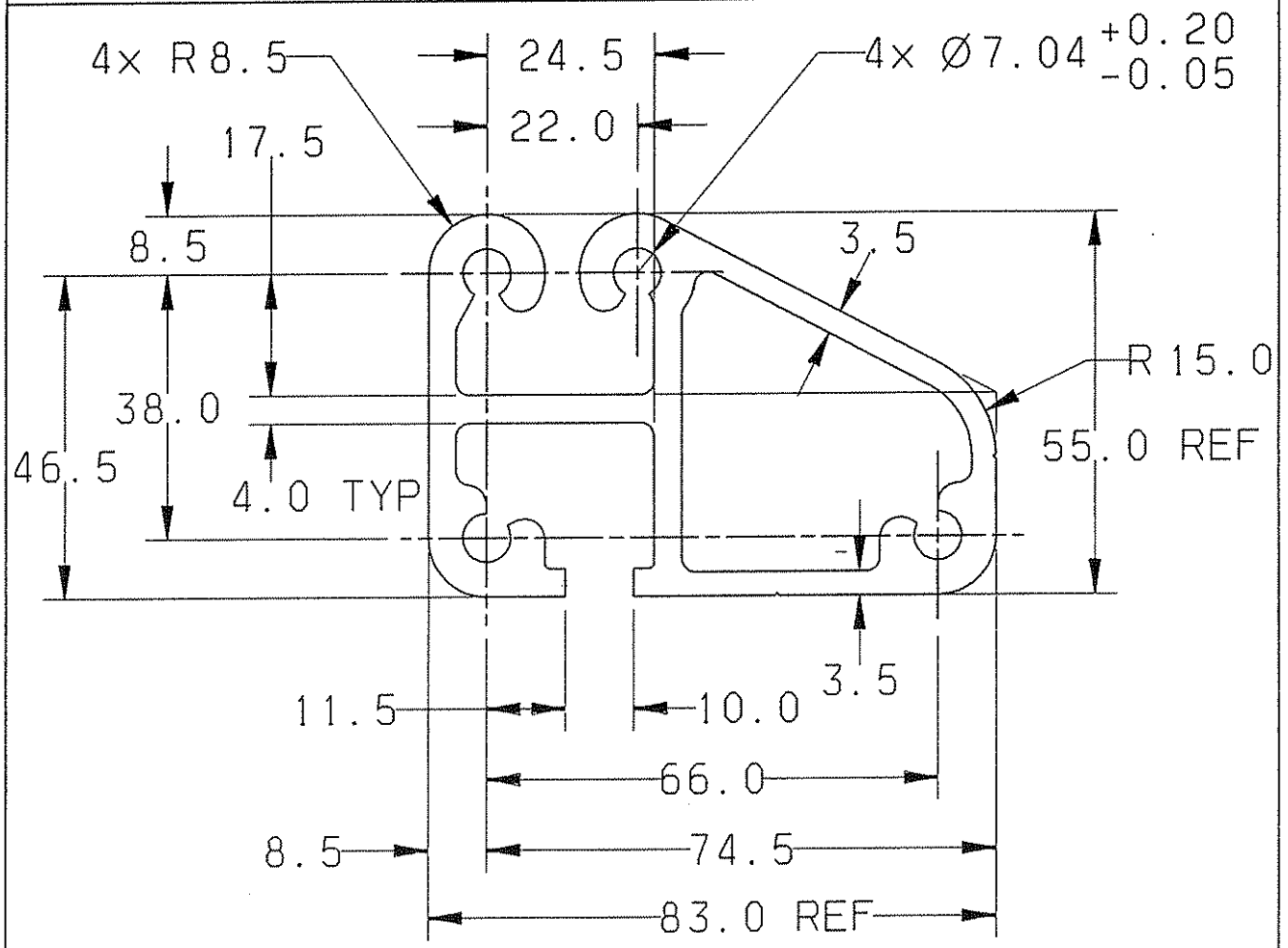
SUPPLIERS SHALL HAVE THEIR MATERIAL TESTED IN ACCORDANCE WITH THIS SPECIFICATION BY AN INDEPENDANT LABORATORY AND THE RESULTS SUBMITTED FREIGHTLINER PURCHASING.

NO SHIPPING SHALL BE MADE BY A NEW SOURCE UNTIL THE MATERIAL HAS BEEN APPROVED BY FREIGHTLINER ENGINEERING.

CHG	JOB NO	DATE	BY	REVISION
-	P00724-05	06/25/97	DAJ	INITIAL RELEASE
A	P00726-08	08/28/97	DAJ	REVISED VENDOR P/N, AND NOTE 2. ALSO PP WAS TPO.
B	P00724-08	09/08/99	ESC	REVISED REQUIREMENTS FROM INCHES TO MM.

ADRIENNE CHILBERG

DRAWN	PDM	TITLE	DRAWING NUMBER	
APPRV	HFW	EXTRUSION-FRAME, UPPER BUNK CENTURY CLASS	48-25269	
DATE	07/10/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. B
CATIA ORIGINAL				



MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
ALUMINUM 6063-T6	1372.0	3.73	48-25269-000

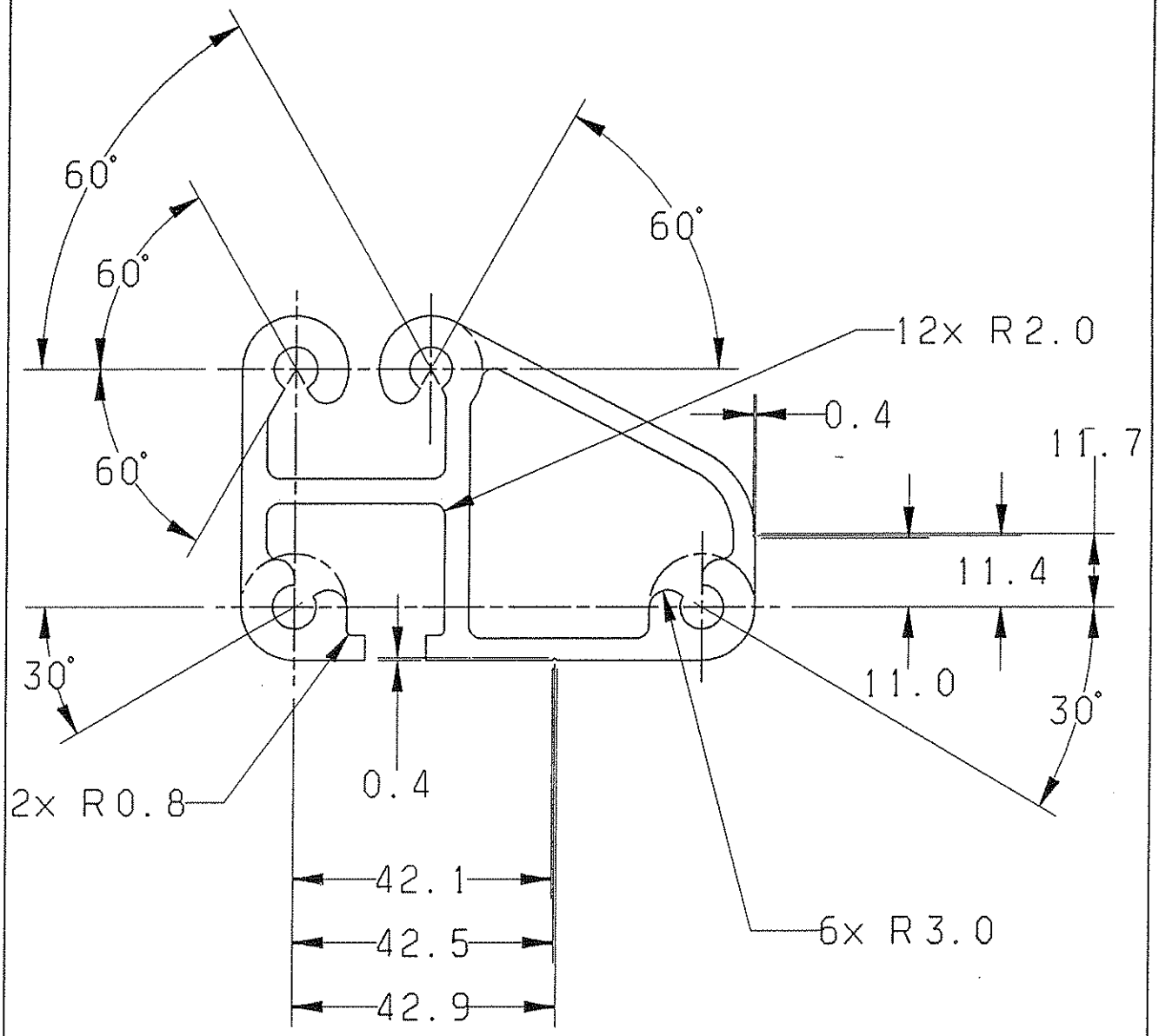
SPECIFICATIONS:

1. FINISH: AS EXTRUDED.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P01210-01	07/10/97	PDM	INITIAL RELEASE
A	P01210-02	08/25/97	PDM	SECTION INTERIOR REVISED & SLOT ADDED
B	P01210-21	11/06/97	PDM	ADDED GROOVE

ADRIENNE CHILBERG

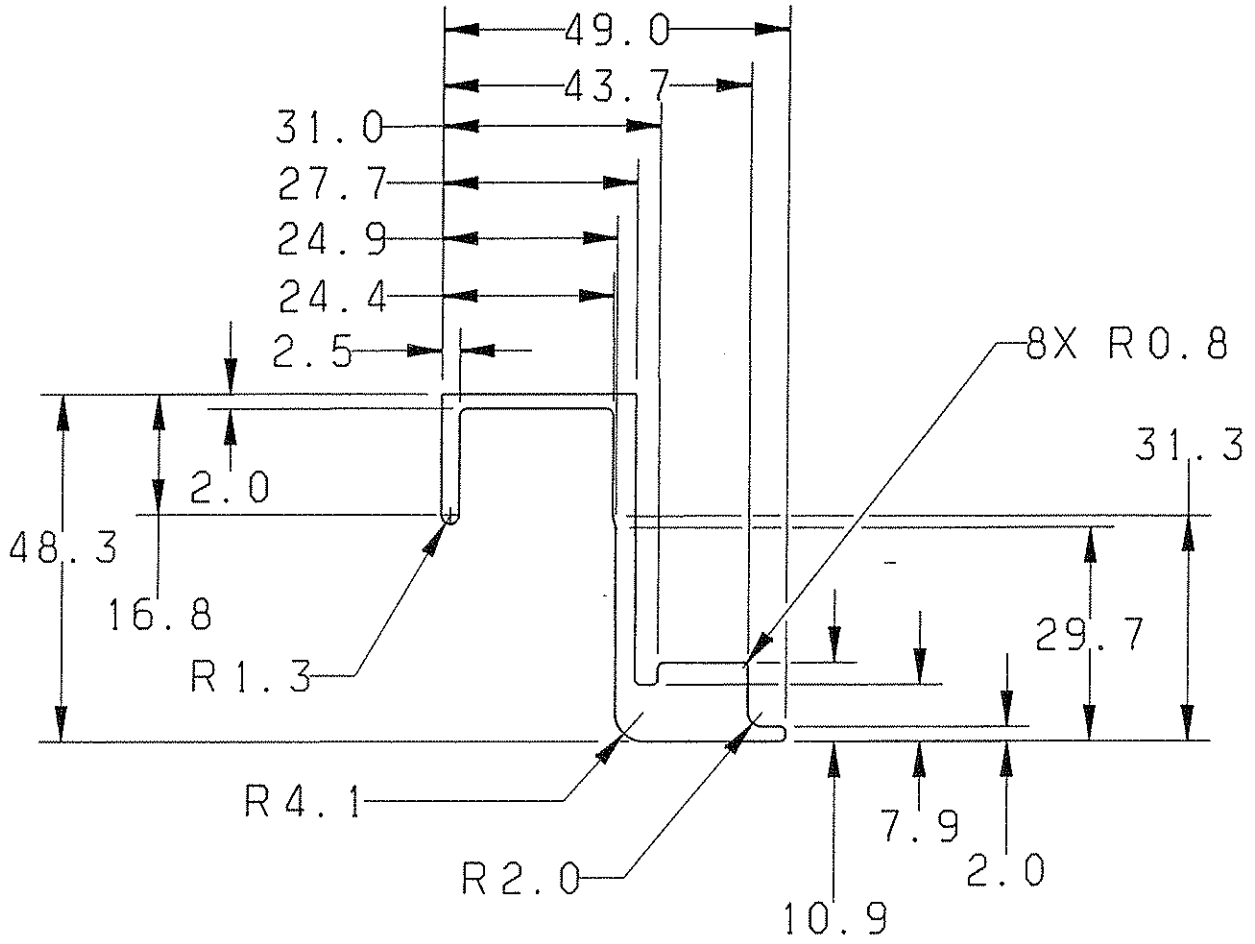
DRAWN	PDM	TITLE EXTRUSION-FRAME, UPPER BUNK CENTURY CLASS	DRAWING NUMBER 48-25269
APPRV	HFW		
DATE	07/10/97		
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2 / CHG. LTR. B



CHG	JOB NO	DATE	BY	REVISION
-	P01210-01	07/10/97	PDM	INITIAL RELEASE
A	P01210-02	08/25/97	PDM	SEE SHEET 1
B	P01210-21	11/06/97	PDM	SEE SHEET 1

HURIENNE CHILBERG

DRAWN	DW	TITLE	DRAWING NUMBER	
APPRV	GEH	EXTRUSION ALUMINUM	48-25273	
DATE	08/26/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



MATERIAL	AREA SQ MM	WEIGHT LB/M	F/L SPEC NO.
6063-T6	406.4	2.4	48-25273-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-10	08/26/97	DW	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DW	TITLE	DRAWING NUMBER	
APPRV	AJF	SHEET-STAINLESS STEEL TYPE 304 COLD ROLLED	48-25274	
DATE	04/15/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES

SCOPE THIS SPECIFICATION IDENTIFIES TYPE 304 COLD ROLLED STAINLESS STEEL.

APPLICATION: EXCELLENT CORROSION RESISTANCE TO MANY ORGANIC AND INORGANIC ACIDS AND SALTS. RESISTANT TO OXIDATION AND CAN BE READILY FABRICATED BY METHODS EMPLOYED WITH CARBON STEELS.

GAUGE NUMBER	T (INCH) THICKNESS	WEIGHT LBS/FT^2	FREIGHTLINER SPECIFICATION NO.
			(3)
20	$.0375^{+.0025}_{-.0015}$	1.512	48-25274-000

SPECIFICATIONS:

1. SHEET HEREIN DESCRIBED SHALL MEET APPLICABLE PROVISIONS OF ASTM A240.
2. MECHANICAL PROPERTIES:

AVERAGE PROPERTIES			AVERAGE PROPERTIES
TENSILE ULT. K.S.I.	YIELD K.S.I.	ELONGATION % IN 2 INCHES	HARDNESS (RB)
80	30	50	80/B90

(3) NO. 4 FINISH ONE SIDE ONLY (PROTECT WITH PVC COATING)

CHG	JOB NO	DATE	BY	REVISION
-	PB4501-49	04/15/97	DW	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	SEALER EXPANDING	48-25275	
DATE	08/21/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES AN EXTRUDED HEAT EXPANDING, FLEXIBLE MATERIAL. THIS MATERIAL CURES UNDER THE HEAT OF PRODUCTION PAINT OVENS. ONCE EXPANDED, IT HAS A TIGHT CELL STRUCTURE.

APPLICATION: FOR ISOLATING SHEET METAL PANELS FOR SOUND AND VIBRATION DAMPENING.

DIMENSIONS			MANUFACTURER'S NUMBER	FREIGHTLINER SPECIFICATION NUMBER
LENGTH	WIDTH	THICKNESS	ORBSEAL	
38	16	5.5	21300 (500.1)	48-25275-000

ENGINEERING NOTES:

1. PHYSICAL PROPERTIES:

SPECIFIC GRAVITY	1.3 - 1.5
WATER ABSORPTION (5% MAX)	0.7 - 1.0%
SOLIDS CONTENT	98.5%
EXPANSION (VOLUMETRIC):	
20' @ 163°C	200 - 250%
AGED 72 HRS @ 38°C	NO CHANGE
CORROSION (500 HRS)	NO LOSS OF ADHESION NO CORROSION
SHEAR ADHESION (20'@ 163°C)	158 kPa

CHG	JOB NO	DATE	BY	REVISION
-	P02409-01	08/21/97	DAJ	INITIAL LOAD

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	SHEET - STEEL ZINC COATED, COMMERCIAL QUALITY	48-25276	
DATE	08/20/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION DEFINES COMMERCIAL QUALITY SHEET STEEL, ZINC COATED (GALVANIZED) BY THE HOT DIP PROCESS.

APPLICATION: FOR USE IN FABRICATING PARTS WHICH MAY REQUIRE BENDING AND MODERATE FORMING AND WHICH REQUIRE ATMOSPHERIC CORROSION RESISTANCE AND A SURFACE THAT CAN BE PHOSPHATED AND PAINTED WITH GOOD ADHESION AND APPEARANCE.

		REFERENCE ONLY		
MINIMUM THICKNESS (IN)	WEIGHT LB/FT^2	GAGE NO.	INCH EQUIV.	FREIGHTLINER SPECIFICATION
.082	3.46	13	.0934	48-25276-213

SPECIFICATIONS:

1. MATERIAL TO BE SPECIFIED AND ORDERED AT MINIMUM THICKNESS.

2. MATERIAL SHALL MEET PROVISIONS OF ASTM A526 FOR ZINC-COATED (GALVANIZED) STEEL SHEET OF COMMERCIAL QUALITY AND ASTM A525 FOR GENERAL REQUIREMENTS ZINC-COATED STEEL SHEET.

3. COATING WEIGHT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A525 FOR THE COATING DESIGNATION SHOWN WHEN MEASURED USING A90 METHOD.

4. THE COATING SHALL HAVE A SMOOTH ADHERENT COATING FREE FROM DEFECTS DETRIMENTAL TO THE FUNCTION AND APPEARANCE OF THE FINISHED PART. THESE DEFECTS INCLUDE, BUT ARE NOT LIMITED TO, PITS, BLISTERS, CORROSION, UNCOATED SPOTS, COIL BREAKS, EDGE BREAKS AND BUCKLES.

5. THICKNESS CANNOT EXCEED STANDARD TOLERANCE FOR STATED REFERENCE GAGE.

CHG	JOB NO	DATE	BY	REVISION
-	P02506-04	08/20/97	DAJ	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	SHEET - STEEL ZINC COATED, COMMERCIAL QUALITY	48-25276	
DATE	08/20/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. -

SPECIFICATIONS:

6. THE G90 SHEET SHALL BE MINIMUM SPANGLE FOR APPLICATION IN NON-APPEARANCE EXPOSED AUTOMOTIVE/TRUCK PAINTED PARTS. SURFACE SHALL HAVE NO CHEMICAL TREATMENT, SHALL BE LIGHTLY OILED, AND BE FREE FROM CORROSION. THIS MATERIAL MUST BE PHOSPHATIZED PRIOR TO PAINTING.

7. BASE MATERIAL SHALL CONFORM TO THE FOLLOWING CHEMICAL COMPOSITION:

ELEMENT	% COMPOSITION BY WEIGHT
CARBON	.150 MAX
MANGANESE	.600 MAX
PHOSPHOROUS	.035 MAX
SULFUR	.040 MAX

8. MECHANICAL PROPERTIES:

YIELD POINT KSI (MIN)	TENSILE STRENGTH KSI (MIN)	ELONGATION IN 2 IN, % (TYP)	HARDNESS RANGE (R_B)
50	57	14	35-60

CHG	JOB NO	DATE	BY	REVISION
-	P02506-04	08/20/97	DAJ	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FOAM-SHEET CLOSED CELL, URETHANE	48-25279	
DATE	09/10/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES				

SCOPE: THIS SPECIFICATION IDENTIFIES 15 PCF CLOSED CELL FLEXIBLE CELLULAR MATERIAL MADE FROM URETHANE.

APPLICATION: GASKETING, ISOLATION/SPACER, AND ENERGY ABSORPTION.

THICKNESS (REF)	SUPPLIER	PRODUCT NUMBER	FREIGHTLINER PART NUMBER
0.250	NORTON	N4508BL	48-25279-000

ENGINEERING NOTES:

1. MATERIAL TO CONFORM WITH APPLICABLE PROVISIONS OF ASTM D3574.

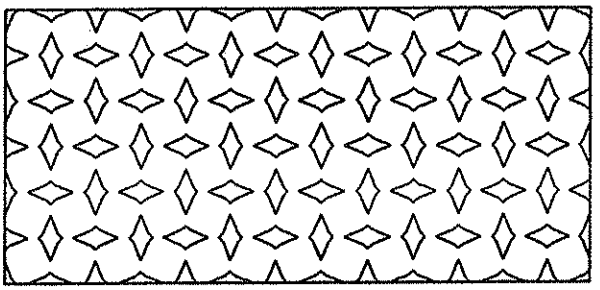
2. PHYSICAL PROPERTIES: (TYPICAL)

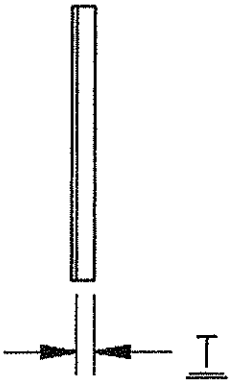
DENSITY (lbS/cu-ft)	15
COMPRESSION SET (50%)	1.4% (22 hrs & 158°F)
DUROMETER (SHORE "O")	50 (ASTM D2240)
TENSILE STRENGTH (psi)	58
ELONGATION (%)	125
WATER ABSORPTION (% WEIGHT CHANGE)	12 (ASTM D570)
COLOR	BLACK

3. MUST MEET APPLICABLE PROVISIONS OF FMVSS #302, FLAMABILITY OF INTERIOR MATERIALS.

CHG	JOB NO	DATE	BY	REVISION
-	P03500-01	09/10/97	DAJ	INITIAL LOAD

DRAWN	R2N	TITLE	DRAWING NUMBER
APPRV	AJF	PLATE-TREAD, BRIGHT, 3003 ALUMINUM DIAMOND	48-25280
DATE	08/04/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			





THICKNESS T (INCHES)	ALLOY / TEMPER	FREIGHTLINER SPECIFICATION NUMBER
.063	3003-H22	48-25280-000
.100		48-25280-001
.125		48-25280-002
.188		48-25280-003

ENGINEERING NOTES:

1. MATERIAL: DIAMONDETTE TO BE "3003 TREAD BRIGHT" ALUMINUM TREAD PLATE.

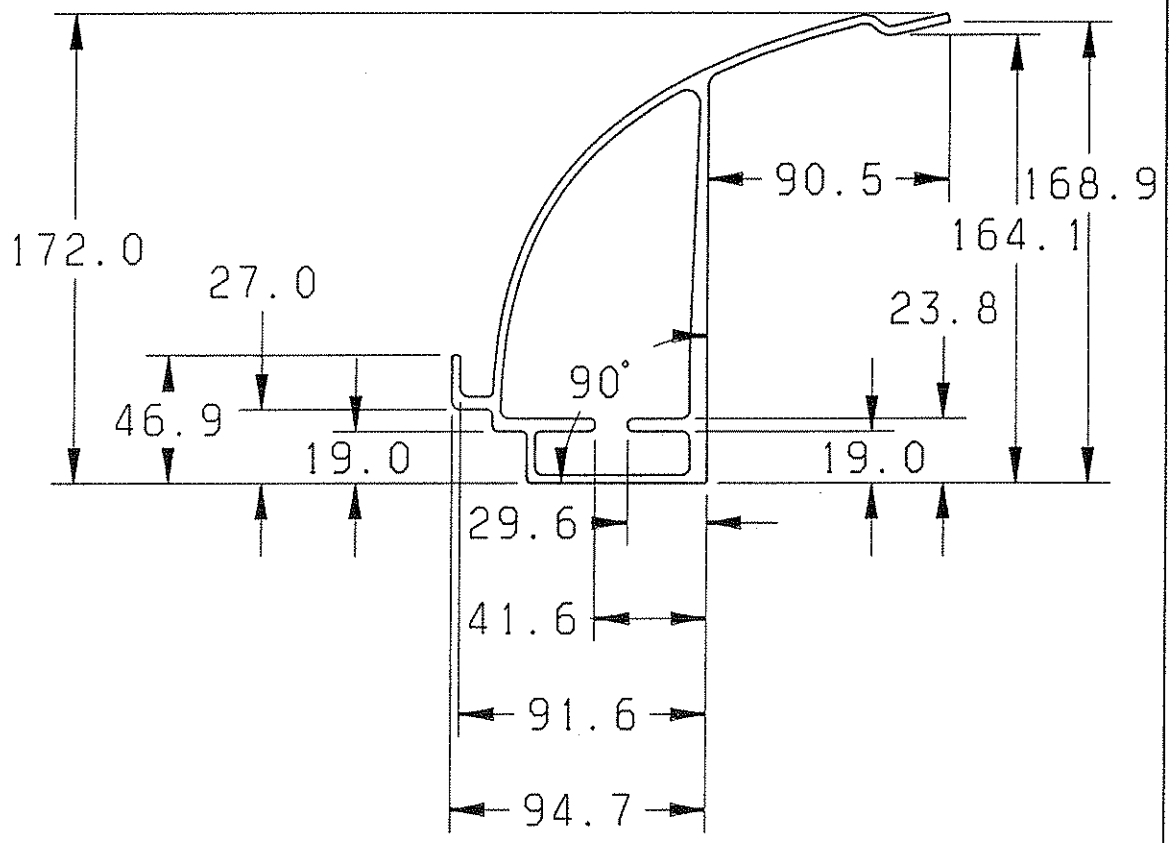
2. THERE ARE TO BE NO BLEMISHES, SCRATCHES OR STAINS ON THE DIAMONDETTE SURFACE.

3. APPROVED VENDOR: ALCOA ALUMINUM

CHG	JOB NO	DATE	BY	REVISION
-	P02129-06	08/04/98	R2N	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	RWS	TITLE	DRAWING NUMBER
APPRV	DEK	EXTRUSION-ROOF, SIDE	48-25281
DATE	09/26/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



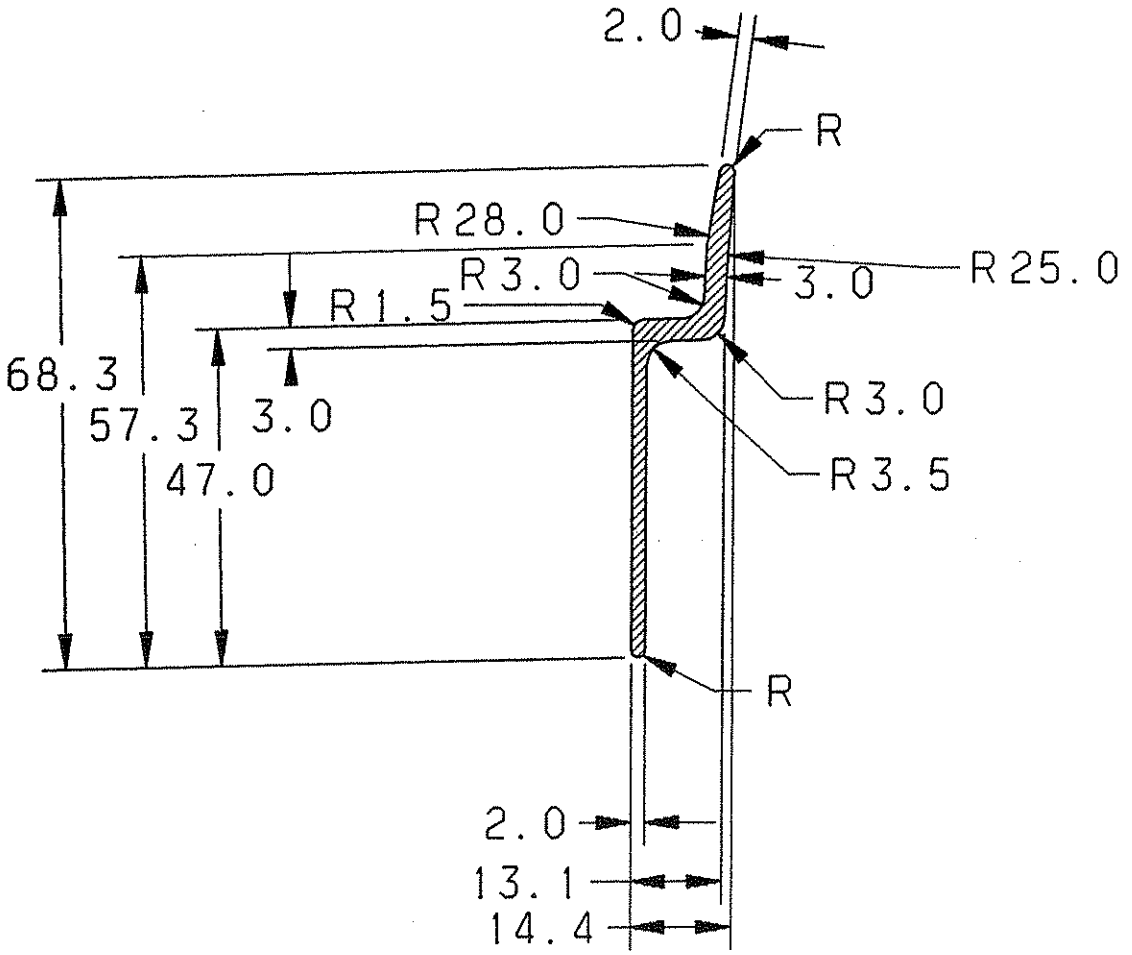
MATERIAL	AREA SQ. mm	WEIGHT LB/M	F/L SPEC NO.
6061-T6	2238.1	13.3	48-25281-000

SPECIFICATIONS:

1. FINISH: MILL FINISH
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-04	09/26/97	RWS	INITIAL RELEASE

DRAWN	PTS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTR-MTG. SHELVES HCOE	48-25282
DATE	04/15/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
6061-T6 OR 6063-T6	187.95	1.15	48-25282-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

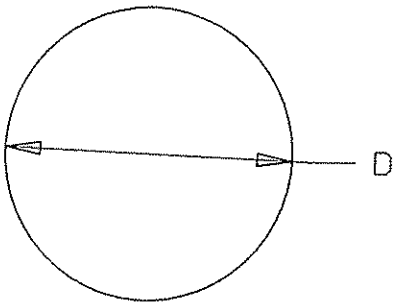
CHG	JOB NO	DATE	BY	REVISION
-	P00699-35	04/15/98	PTS	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	MY	TITLE	PART NUMBER	
APPRV	DAJ	ROD-NYLON 6/6, ROUND	48-25283	
DATE	09/18/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES A NYLON 6/6 ROUND ROD.

APPLICATION: DOWEL



D DIAMETER (INCHES)	FREIGHTLINER SPECIFICATION NUMBER
.375	48-25283-037

ENGINEERING NOTES:

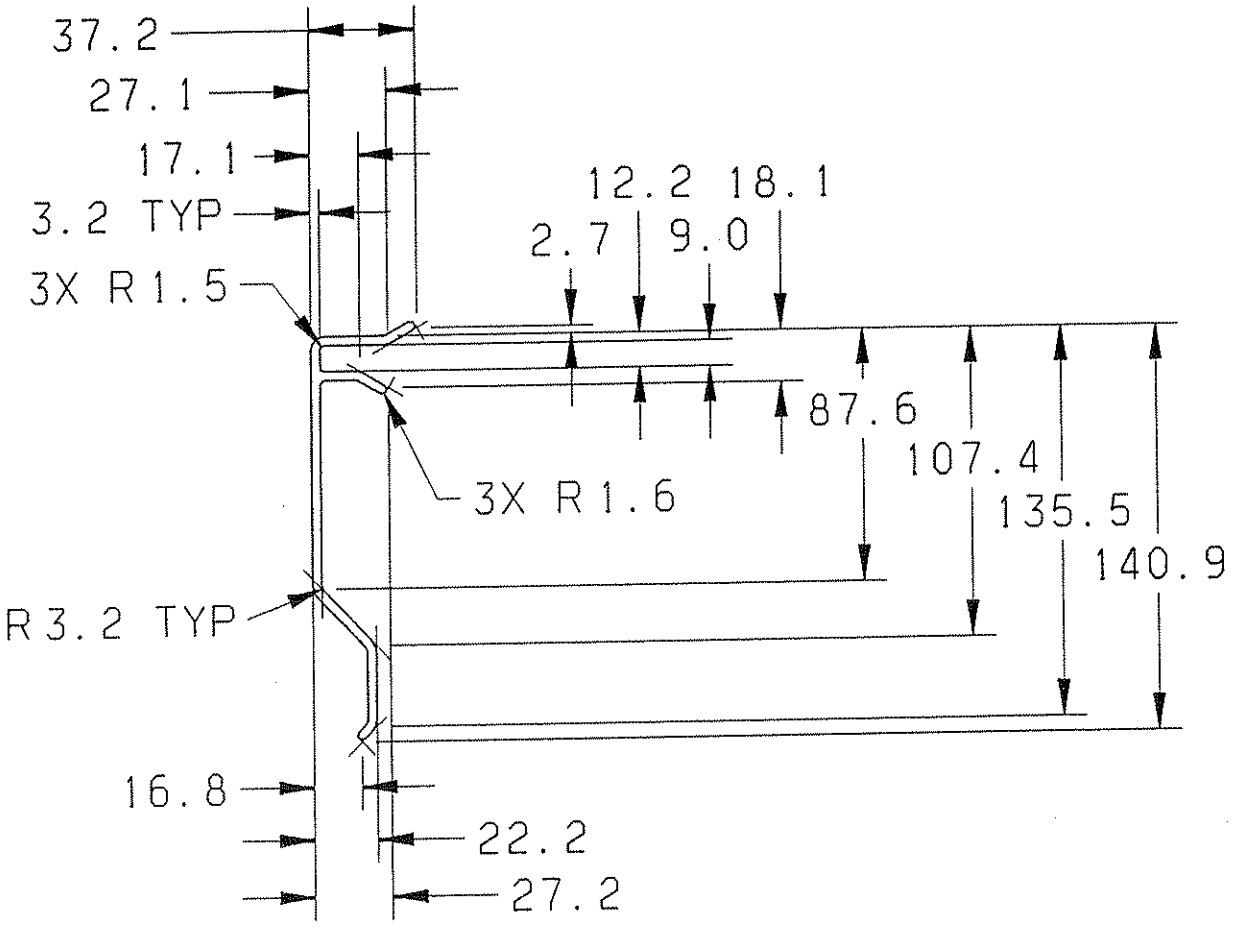
1. PHYSICAL PROPERTIES:

SPECIFIC GRAVITY: (ASTM D79)	1.14
WATER ABSORBTION: (ASTM D570) (24hr, 1/8in. THICK(%))	1.5
TENSILE STRENGTH: (ASTM D638) (PSI)	12,000
ELONGATION: (ASTM D638) (%)	60
FLEXURAL MODULUS: (ASTM D790) (KPSI)	440
MELT POINT: (ASTM D2117) (CRYSTALLINE) (°F)	509

CHG	JOB NO	DATE	BY	REVISION
-	P01210-07	09/18/97	MY	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	LWA	TITLE EXTRUSION-ALUMINUM BRKT-BBOX, OVR RAIL, LID MNT, C2	DRAWING NUMBER 48-25284
APPRV	BRG		
DATE	01/29/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	1.022	0.1022	48-25284-000

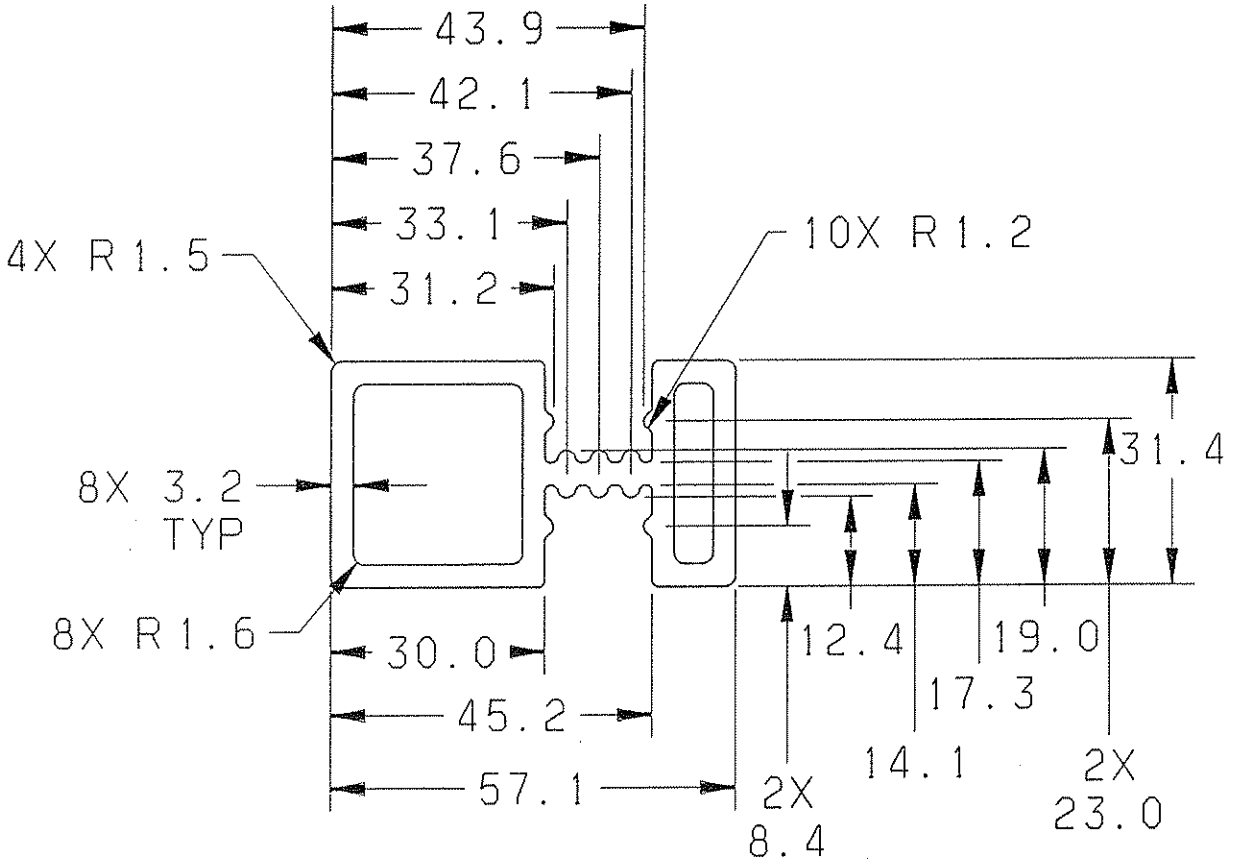
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES: PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P00099-06	10/10/97	LWA	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DEK	TITLE	DRAWING NUMBER	
APPRV	AJF	EXTRN-WDO DIV, REAR DOOR	48-25285	
DATE	10/10/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



1. ALL RADII 1.0 UNLESS OTHERWISE SPECIFIED

MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	668.2	3.9	48-25285-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-05	10/10/97	DEK	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	HOSE-WIRE BRAID TEXTILE COVER, MEDIUM PRESSURE	48-25286	
DATE	10/07/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				

UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES

SCOPE: THIS SPECIFICATION IDENTIFIES WIRE REINFORCED ELASTOMERIC HOSE THAT MEETS ALL REQUIREMENTS OF SAE J517 100 R3 HOSE.

APPLICATION: FOR USE WITH PETROLEUM BASE HYDRAULIC FLUIDS AND LUBRICATING OILS.

HOSE SIZE	ID BASIC (INCH)	OD MAX. (INCH)	MIN. BURST PRESSURE PSI	MAX. WORK PRESSURE PSI	MIN. BEND RADIUS	SUPPLIER PH	FREIGHTLINER PART NUMBER
8	.500	.920	4000	1000	5.0	601-8	48-25286-008

ENGINEERING NOTES:

1. MATERIAL: REINFORCED ELASTOMERIC HOSE EQUALING OR EXCEEDING THE REQUIREMENTS OF SAE J517, SAE J343, AND SAE J1019.

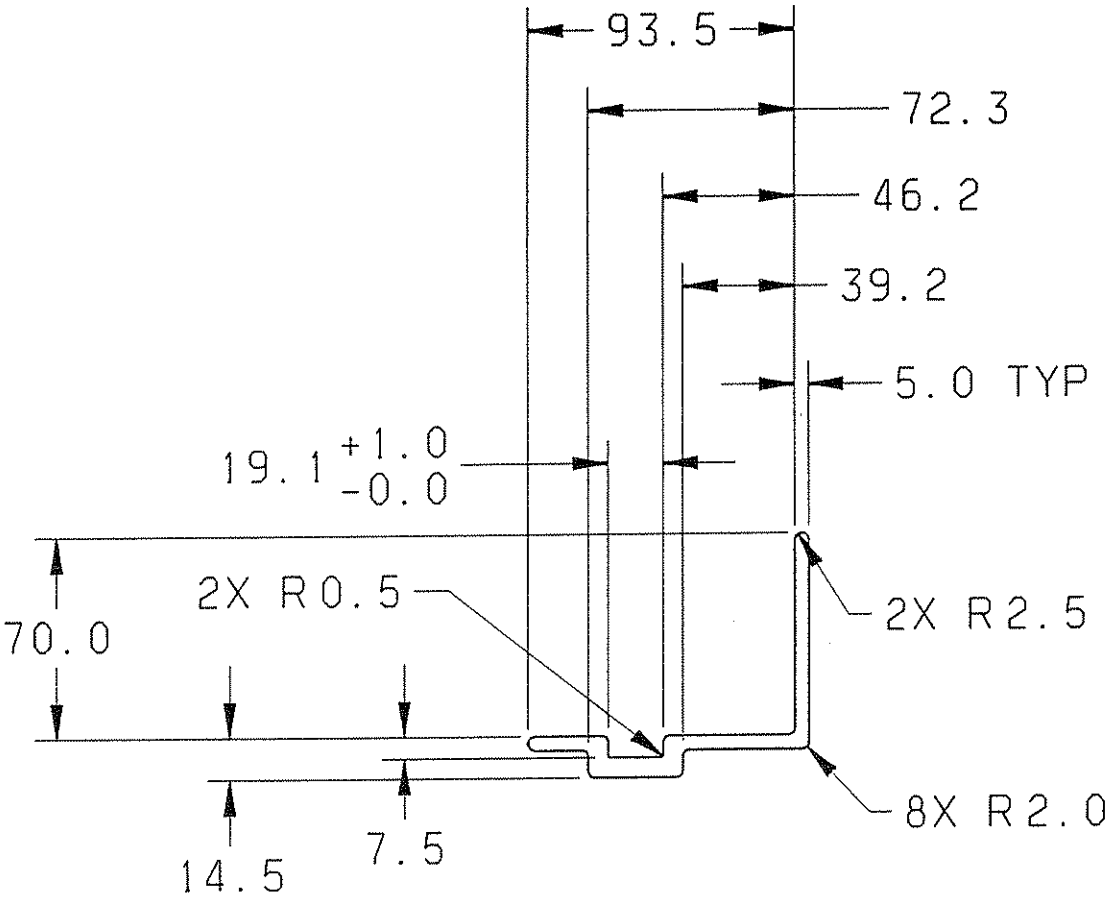
2. CONSTRUCTION: INNER TUBE-----SYNTHETIC RUBBER
INNER BRAID----TWO TEXTILE BRAID
COVER----------BLACK MSHA ACCEPTED SYNTHETIC RUBBER

3. TEMPERATURE RANGE: -40°F TO +257°F

CHG	JOB NO	DATE	BY	REVISION
-	P03795-01	10/07/97	DAJ	INITIAL LOAD
A	PA2042-82	12/23/97	DAJ	REVISED APPLICATION NOTE AND NOTE 2.

ADRIENNE CHILBERG

DRAWN	LWA	TITLE EXTRUSION-ALUMINUM BRKT-BBOX, OVR RAIL, RR MNT, C2	DRAWING NUMBER 48-25288
APPRV	BRG		
DATE	01/28/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	1.356	0.1356	48-25288-000

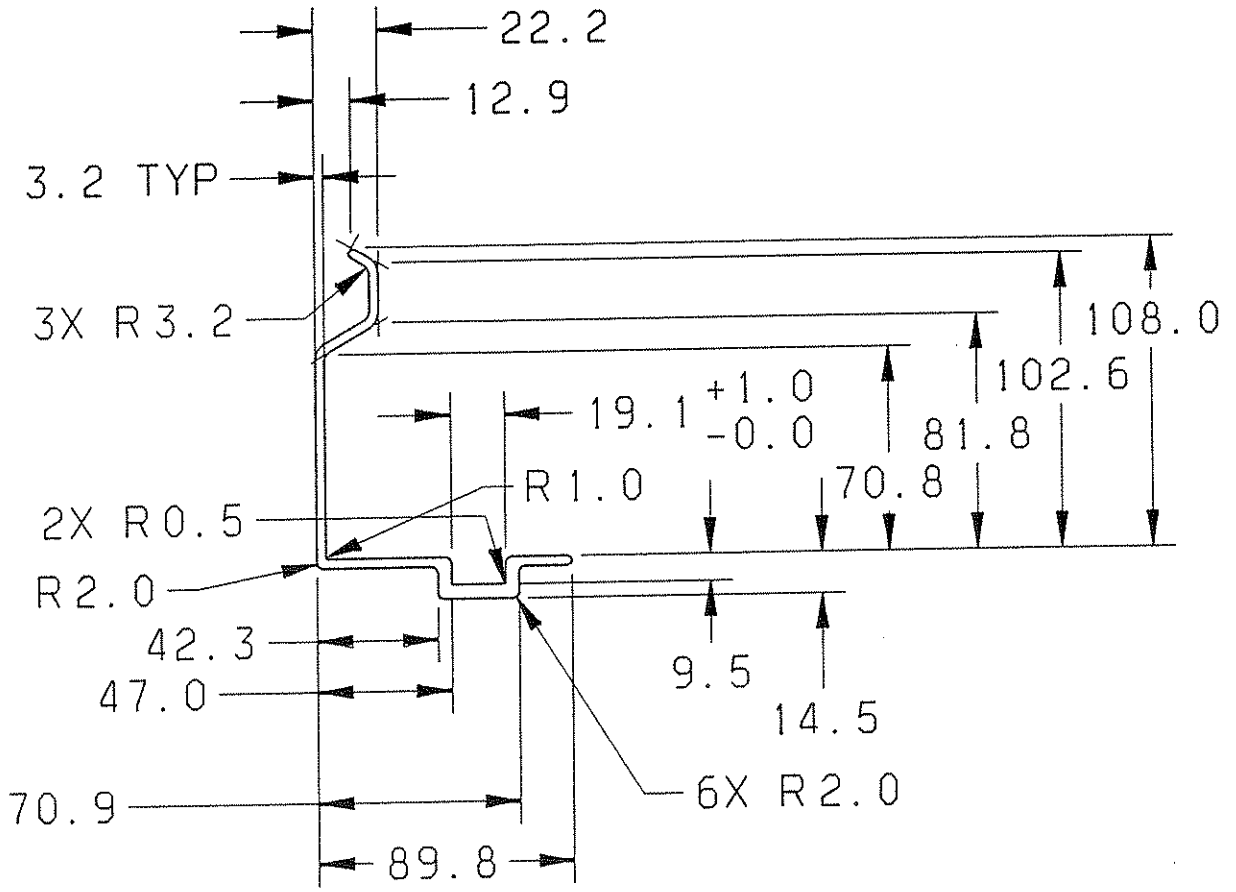
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P00099-06	01/28/98	LWA	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	LWA	TITLE EXTRUSION-ALUMINUM BRKT-BBOX, OVR RAIL, FR MNT, C2	DRAWING NUMBER 48-25289
APPRV	BRG		
DATE	10/10/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	1.259	0.1259	48-25289-000

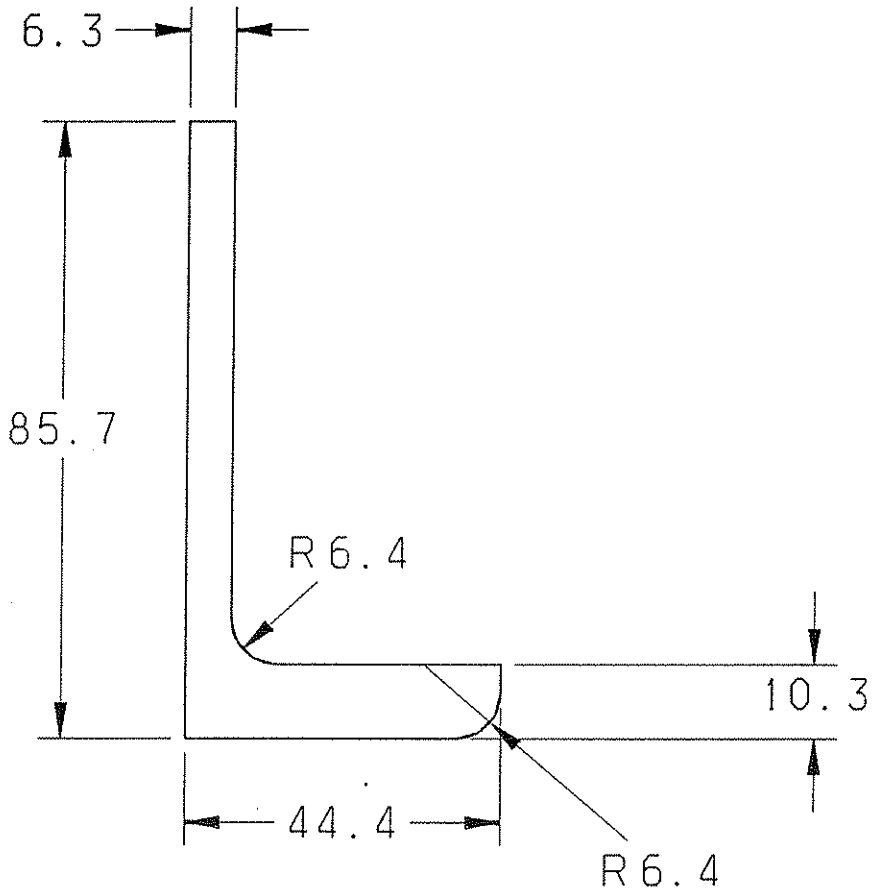
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P00099-06	01/30/98	LWA	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	AJF	TITLE	DRAWING NUMBER	
APPRV	ajf	EXTRUSION-LONGITUDINAL ALF LOW CAB	48-25290	
DATE	10/10/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	1.45349	0.1417	48-25290-000

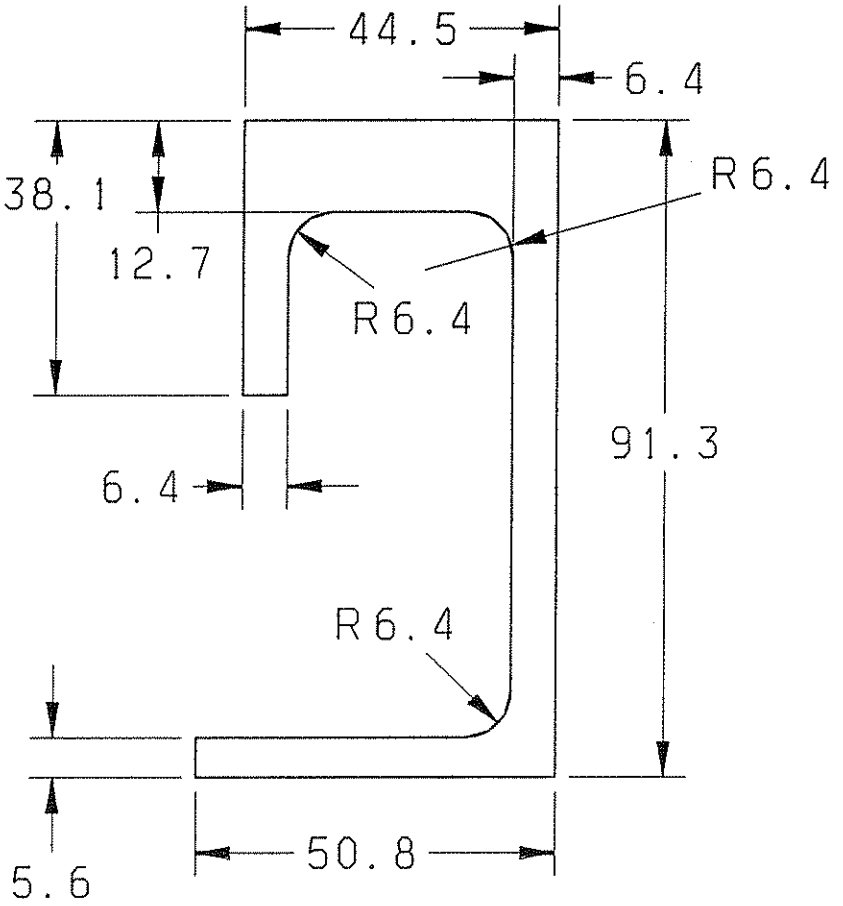
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P03636-02	10/10/97	AJF	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	AJF	TITLE EXTRUSION-REINF. LONGITUDINAL ALF LOW CAB	DRAWING NUMBER 48-25291	
APPRV	AJF			
DATE	10/09/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	2.32099	2.26297	48-25291-000

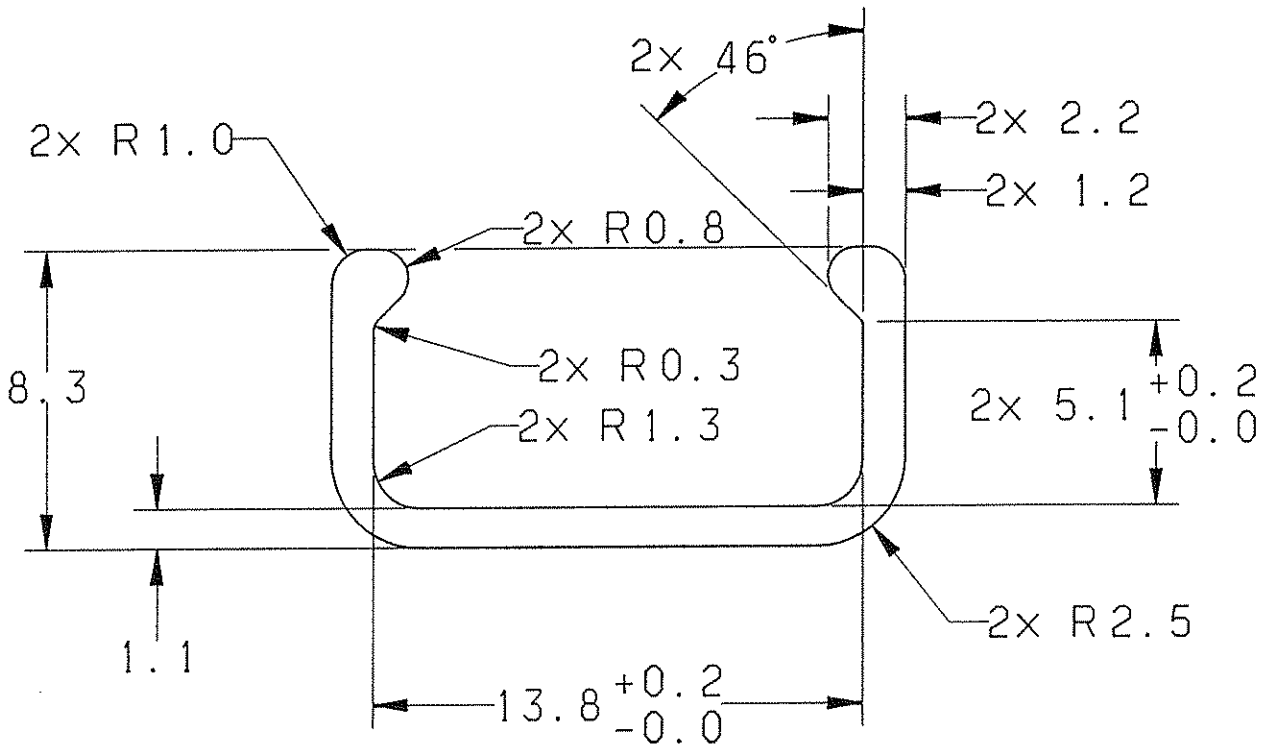
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P03636-02	10/10/97	AJF	INITIAL RELEASE

HURIENNE CHILBERG

DRAWN	JAC	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION-PVC TRIM COVER	48-25292
DATE	12/05/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
(1)	36.0	0.05	48-25292-000

SPECIFICATIONS:

(1) MATERIAL: GEON 8700X PVC

2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.

3. UNLESS OTHRWISE NOTED TOLERANCES FOR LINEAR DIMENSIONS: +/- 0.25

CHG	JOB NO	DATE	BY	REVISION
-	P00699-17	12/05/97	JAC	INITIAL RELEASE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	SHEET - ALUMINUM VINYL LAMINATED	48-25293	
DATE	10/24/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A DRAWING QUALITY VINYL CLAD LAMINATED SHEET ALUMINUM.

APPLICATION: PANELS AND FLOORS WHERE A ACOUSTICS AND VIBRATION DAMPING MATERIAL IS DESIRED, SUCH AS CAB DECKS AND ENGINE TUNNELS.

THICKNESS IN INCHES (MIN/MAX)	FREIGHTLINER SPECIFICATION NUMBERS
.080 - .082	48-25293-000 (1)
.126 - .128	48-25293-001 (2)

SPECIFICATIONS:

(1) MATERIAL: ALUMINUM SHEET .040/ L40A 5052 BONDED WITH A VISCO-ELASTIC FILM.

(2) MATERIAL: ALUMINUM SHEET .063/ L40A 5052 BONDED WITH A VISCO-ELASTIC FILM.

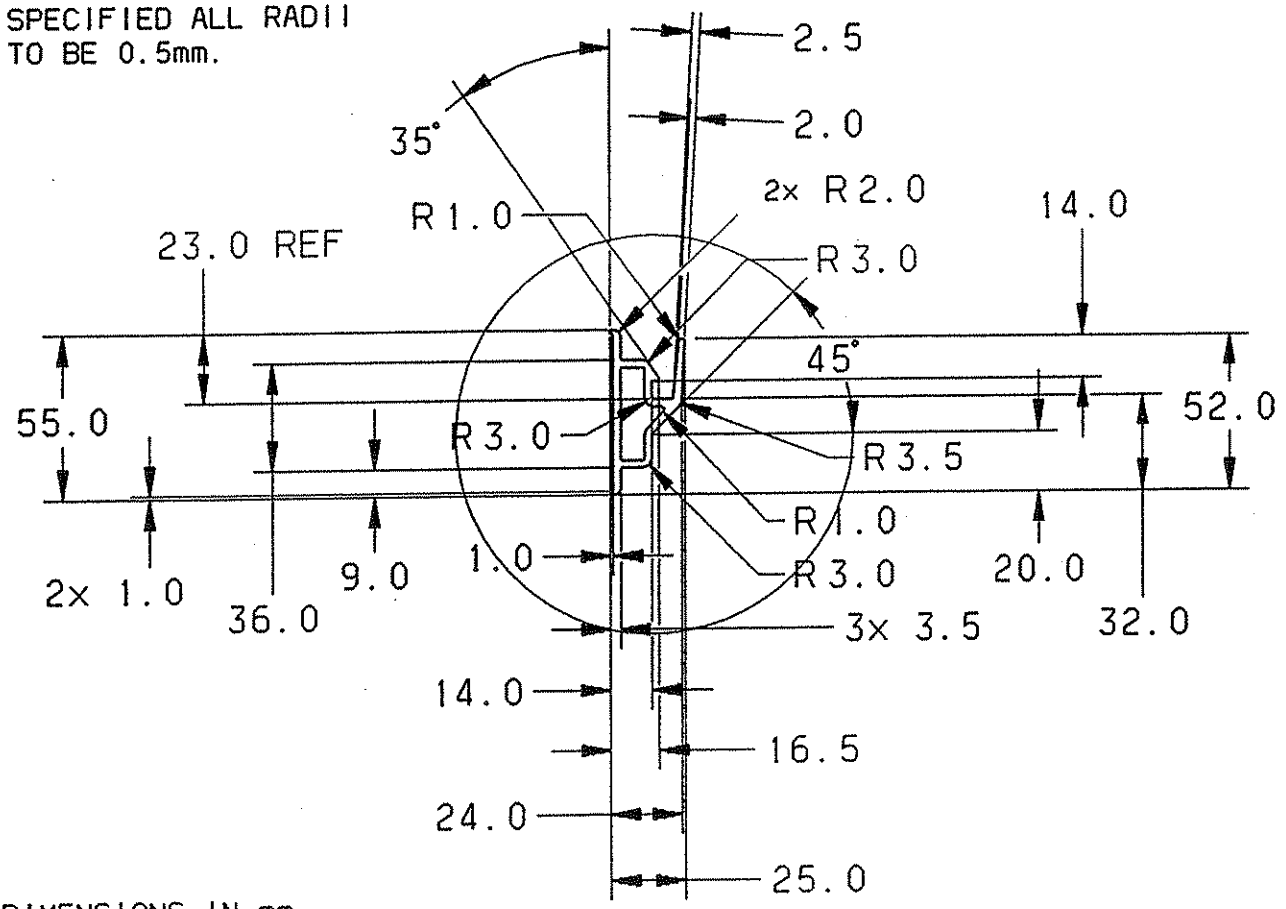
3. FINISH: AS PRODUCED.

4. OPERATING TEMPERATURE (°F): -50 TO 150

CHG	JOB NO	DATE	BY	REVISION
-	P02047-13	10/24/97	DAJ	INITIAL RELEASE

DRAWN	PMS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION, SHELF, TV/STORAGE CBNT P2 CLASS	48-25294
DATE	01/30/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. A
CATIA ORIGINAL			

NOTE_ UNLESS OTHERWISE SPECIFIED ALL RADII TO BE 0.5mm.



DIMENSIONS IN mm.

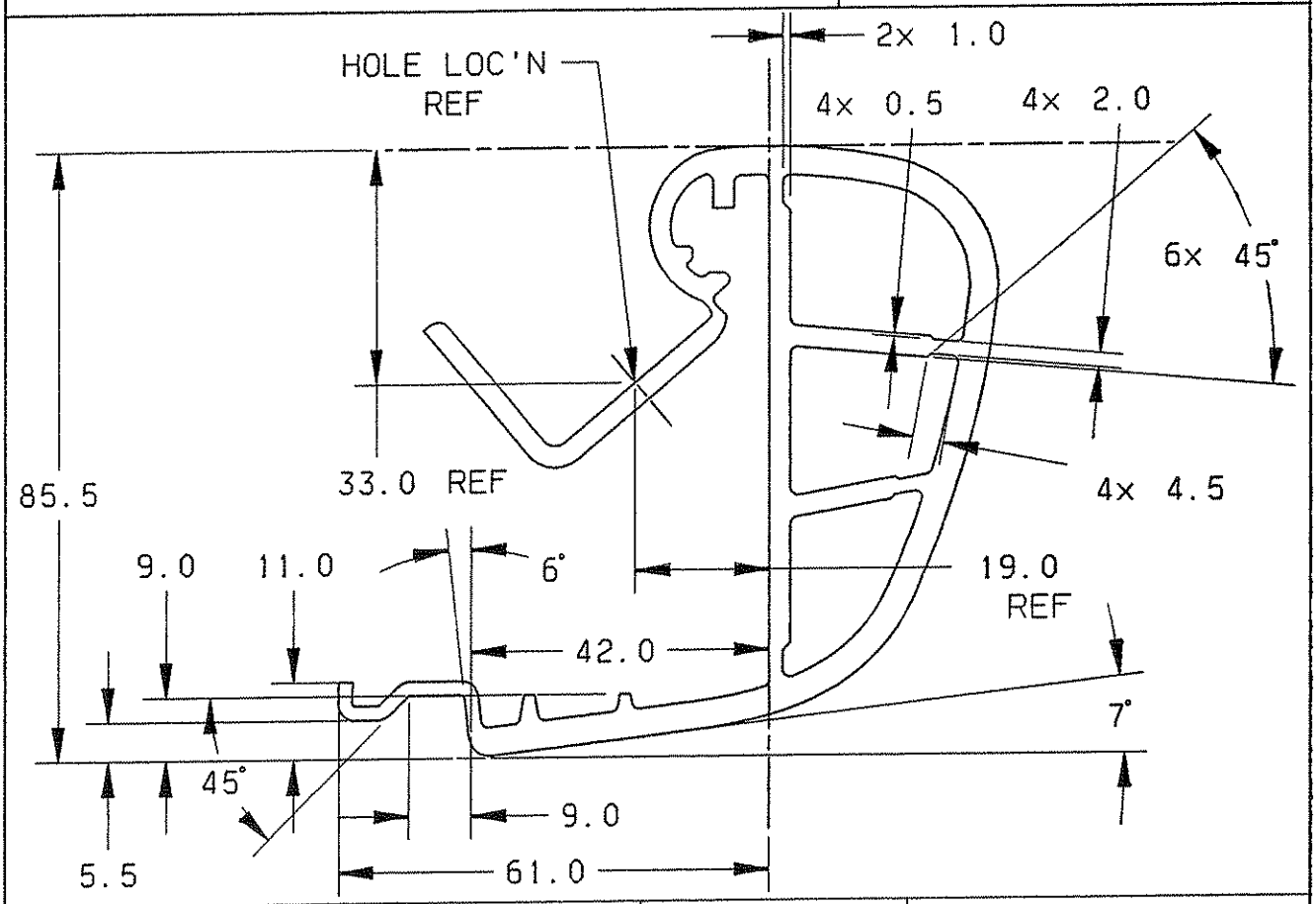
MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
6061-T6 OR 6063-T6	352.0	0.975	48-25294-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P00699-24	02/12/98	PMS	INITIAL RELEASE
A	P00699-B9	07/09/98	PMS	DIMNENSIONS 45° AND 20.0 ADDED. DIMENSIONS IN mm ADDED.

DRAWN	PMS	TITLE	DRAWING NUMBER	
APPRV	JMW	EXTRUSION, SHELF EDGE TRAY P2 CLASS	48-25295	
DATE	12/05/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. C
CATIA ORIGINAL				



MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
PVC 608H-91	1316	1.96	48-25295-000

SPECIFICATIONS:

1. FINISH: NONE.
2. FOG TEST: MINIMUM VALUE OF 60 ON 1 AND 16 H VALUES FOR SAE J1756.
3. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
5. UNLESS OTHERWISE NOTED,

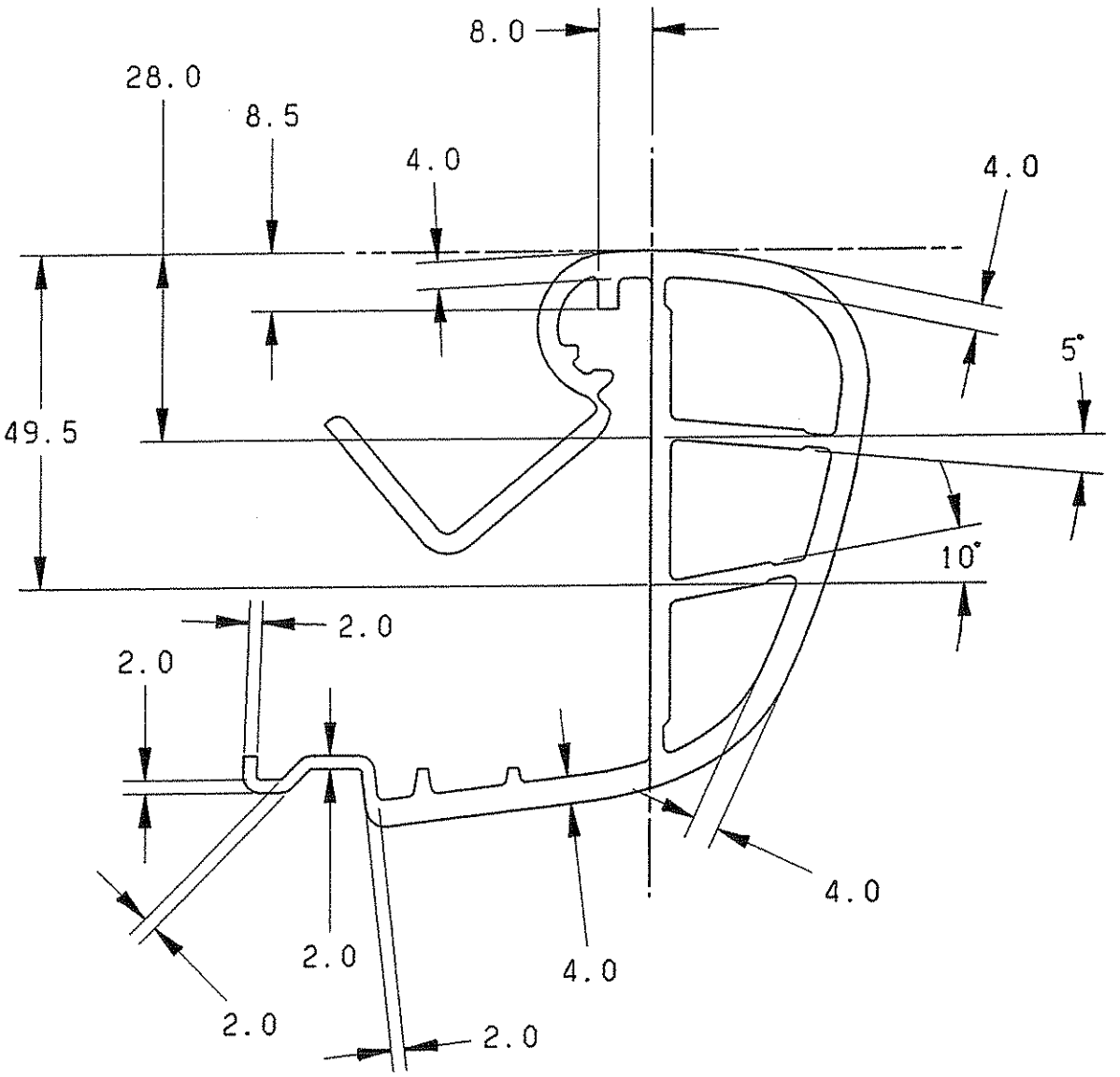
DIMENSION(mm)	TOLERANCE(mm)
0-5	0.25
5+-25	0.51
25+	0.76

6. UNLESS OTHERWISE NOTED, TOLERANCE FOR ANGULAR DIMENSIONS ± 1 DEGREE

CHG	JOB NO	DATE	BY	REVISION
-	P00699-17	12/04/97	PMS	INITIAL RELEASE
A	P00699-17	02/26/98	PMS	PROFILE REVISED
B	P00699-80	03/25/98	PMS	THIRD CLOSED CAVITY ADDED.
C	P00699-81	04/07/98	PMS	TOLERANCE TABLE ADDED.

DRAWN	PMS	TITLE	DRAWING NUMBER	
APPRV	JMW	EXTRUSION, SHELF EDGE TRAY P2 CLASS	48-25295	
DATE	12/04/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. C
CATIA ORIGINAL				

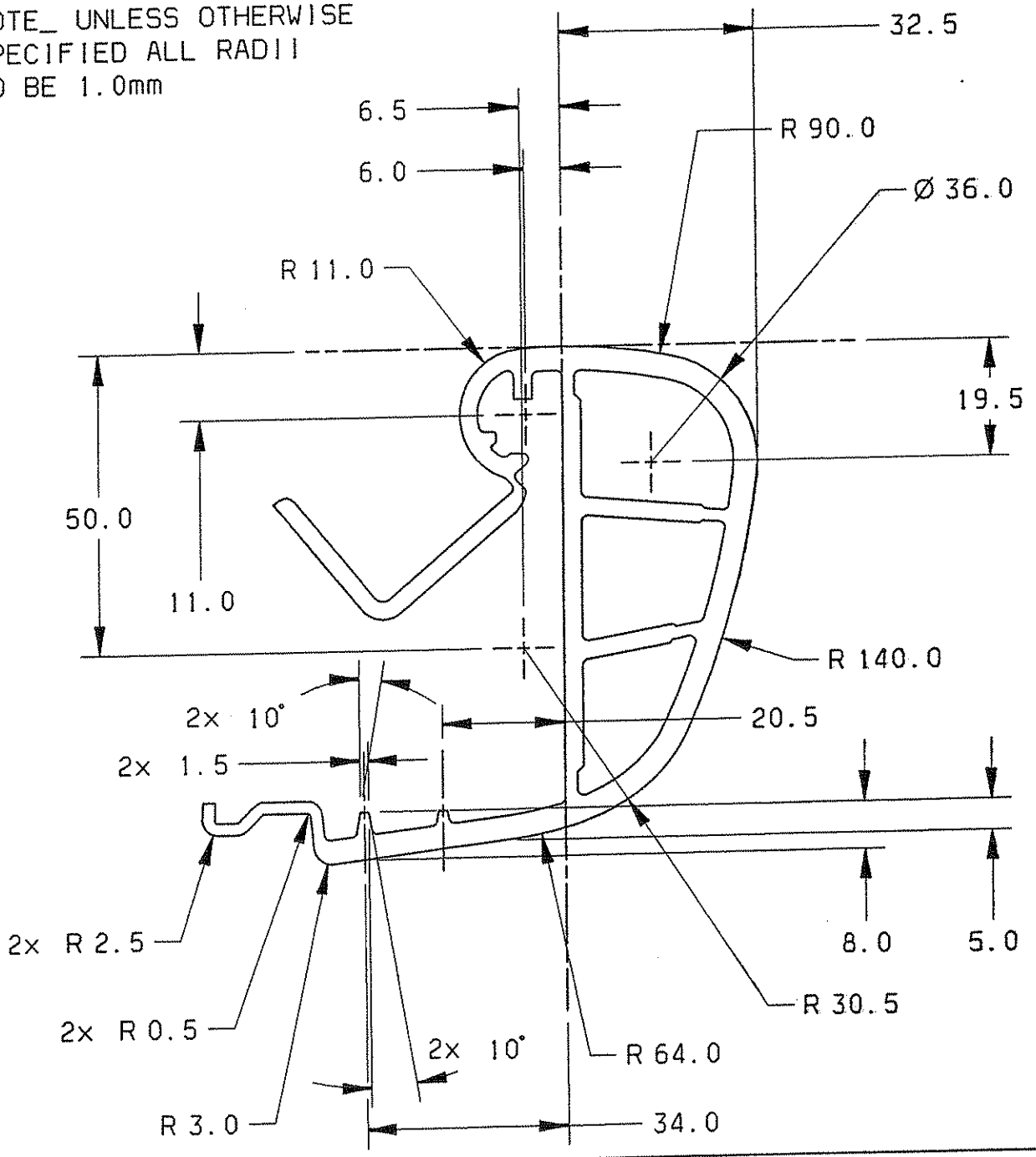
NOTE_ UNLESS OTHERWISE
SPECIFIED WALL
THICKNESS TO BE 3.0mm



CHG	JOB NO	DATE	BY	REVISION
-	P00699-17	12/04/97	PMS	INITIAL RELEASE
A	P00699-17	02/26/98	PMS	PROFILE MODIFIED
B	P00699-80	03/25/98	PMS	THIRD CLOSED CAVITY ADDED.
C	P00699-81	04/07/98	PMS	TOLERANCE TABLE ADDED.

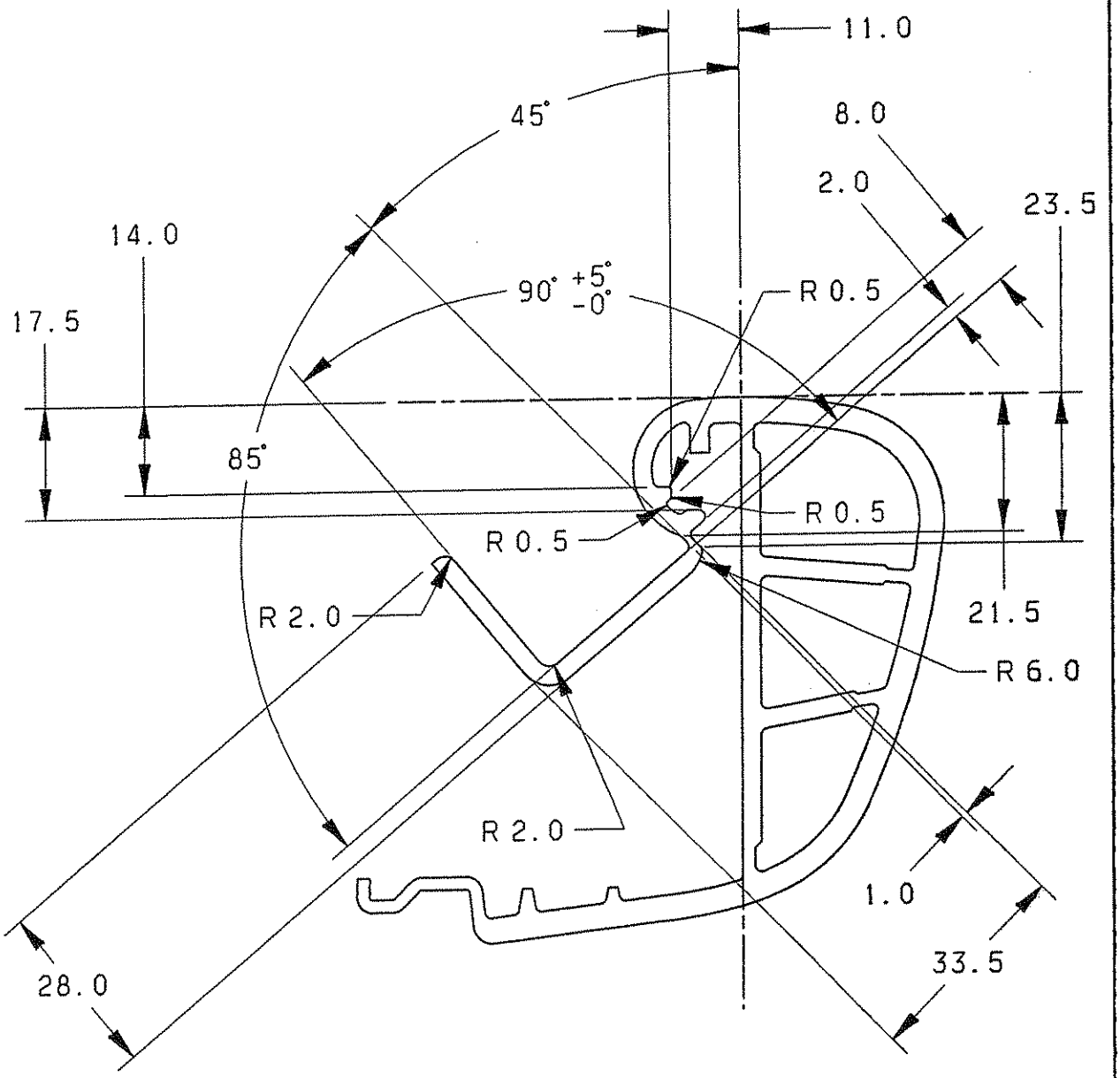
DRAWN	PMS	TITLE EXTRUSION, SHELF EDGE TRAY P2 CLASS	DRAWING NUMBER 48-25295
APPRV	JMW		
DATE	12/04/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4 / CHG. LTR. C
CATIA ORIGINAL			

NOTE_ UNLESS OTHERWISE
SPECIFIED ALL RADII
TO BE 1.0mm



CHG	JOB NO	DATE	BY	REVISION
-	P00699-17	12/04/97	PMS	INITIAL RELEASE
A	P00699-17	02/26/98	PMS	PROFILE MODIFIED
B	P00699-80	03/25/98	PMS	THIRD CLOSED CAVITY ADDED.
C	P00699-81	04/07/98	PMS	TOLERANCE TABLE ADDED.

DRAWN	PMS	TITLE EXTRUSION, SHELF EDGE TRAY P2 CLASS	DRAWING NUMBER 48-25295
APPRV	JMW		
DATE	12/04/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4 / CHG. LTR. C
CATIA ORIGINAL			



CHG	JOB NO	DATE	BY	REVISION
-	P00699-17	12/04/97	PMS	INITIAL RELEASE
A	P00699-17	02/26/98	PMS	PROFILE MODIFIED
B	P00699-80	03/25/98	PMS	THIRD CLOSED CAVITY ADDED.
C	P00699-81	04/07/98	PMS	TOLERANCE TABLE ADDED.

HURIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	SHEET - RUBBER SBR, FIBER REINFORCED	48-25297	
DATE	11/20/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES A SBR COMPOUND WITH CLOSE WEAVE POLYESTER FABRIC CONSTRUCTION.

APPLICATION: GENERAL NON-CRITICAL APPLICATIONS.

THICKNESS "T" IN INCHES (NOM)	FREIGHTLINER SPECIFICATION NUMBERS
1/8	48-25297-012

SPECIFICATIONS:

1. MATERIAL: SBR COMPOUND AND CLOSE WEAVER POLYESTER FABRIC
2. COLOR/FINISH: BLACK/SMOOTH
3. TENSILE STRENGTH, PSI: 400 MIN
   (ASTM D 412)
4. ELONGATION, %: 200 MIN
   (ASTM D 412)
5. HARDNESS, SHORE A: 65 ±5
   (ASTM D 2240)
6. SERVICE TEMPERATURE, °F: -20 TO 170
7. QUALITY: GOOD COMMERCIAL QUALITY SUITABLE FOR INTENDED USE.

CHG	JOB NO	DATE	BY	REVISION
-	P02887-01	11/20/97	DAJ	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	CONDUIT-NYLON, TYPE 6 BLACK, CONVOLUTED TUBING	48-25298	
DATE	12/01/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A CONVOLUTED COPOLYMER NYLON TUBING, TYPE 6.

APPLICATION: FLEXIBLE PROTECTIVE COVERING CAPABLE OF WITHSTANDING HIGH TEMPERATURE FOR ELECTRIC WIRING.

SIZE (MM)	REPLACES (INCHES)	O.D. (MM)	I.D. (MM)	FREIGHTLINER PART NUMBER
6	.250	10.15 - 9.55	6.60 - 6.10	48-25298-025
10	.413	15.09 - 14.45	10.72 - 10.08	48-25298-038
13	.500	17.65 - 17.02	12.93 - 12.29	48-25298-050
16	.625	21.23 - 20.60	16.00 - 15.37	48-25298-062
19	.750	25.02 - 24.38	19.18 - 18.54	48-25298-075
22	.875	29.00 - 28.36	22.52 - 21.88	48-25298-088
25	1.000	33.10 - 32.46	26.04 - 25.40	48-25298-100
30	1.181	38.10 - 37.10	30.50 - 29.50	48-25298-125
40	1.570	49.70 - 47.70	41.00 - 39.00	48-25298-150

ENGINEERING NOTES:

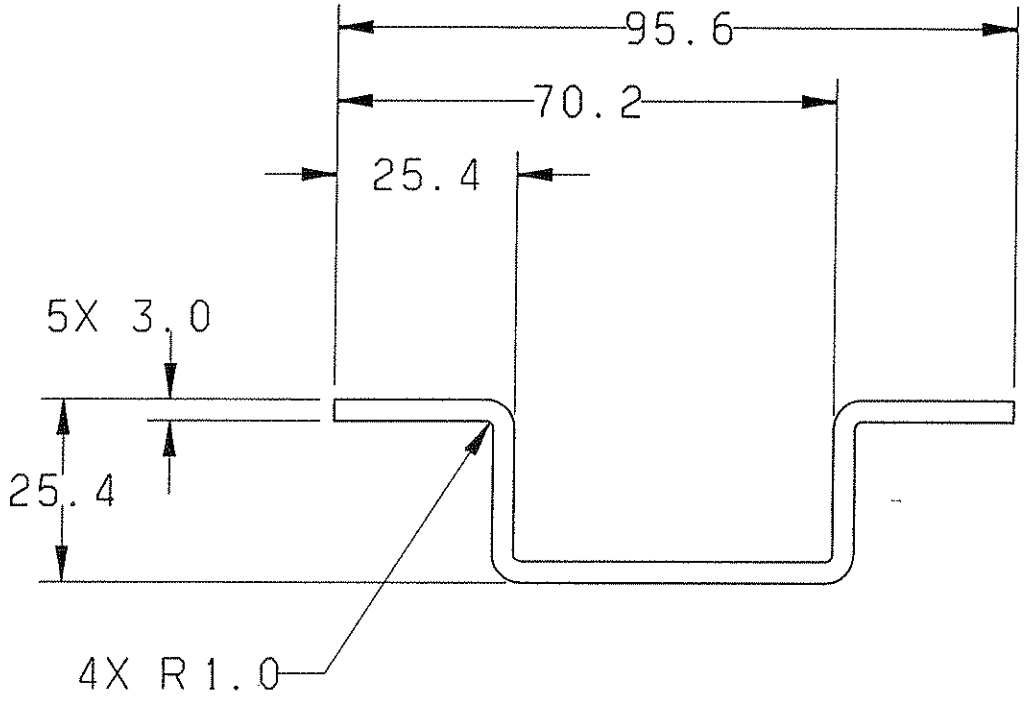
1. MATERIAL: BLACK COPOLYMER NYLON TYPE 6
2. SLIT FULL LENGTH.
3. MUST COMPLY WITH THE REQUIREMENTS OF NFPA 1901-1996, PARAGRAPH 9-2.2.2.
4. PHYSICAL PROPERTIES

MELTING POINT °C (per ASTM D789):	215
TENSILE STRENGTH (per ASTM D638):	5000 min
ULTIMATE ELONGATION % (per ASTM D638):	20 min
FLEXURL MODULUS kpsi (per ASTM D790):	290 max

CHG	JOB NO	DATE	BY	REVISION
-	P03662-01	12/01/97	DAJ	INITIAL RELEASE

HURIENNE CHILBERG

DRAWN	STH	TITLE	DRAWING NUMBER	
APPRV	DEK	EXTR-REINF, FLOOR STIFFENER	48-25299	
DATE	12/05/97			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. mm	WEIGHT LB/M	F/L SPEC NO.
6061-T6	408.3	2.4	48-25299-000

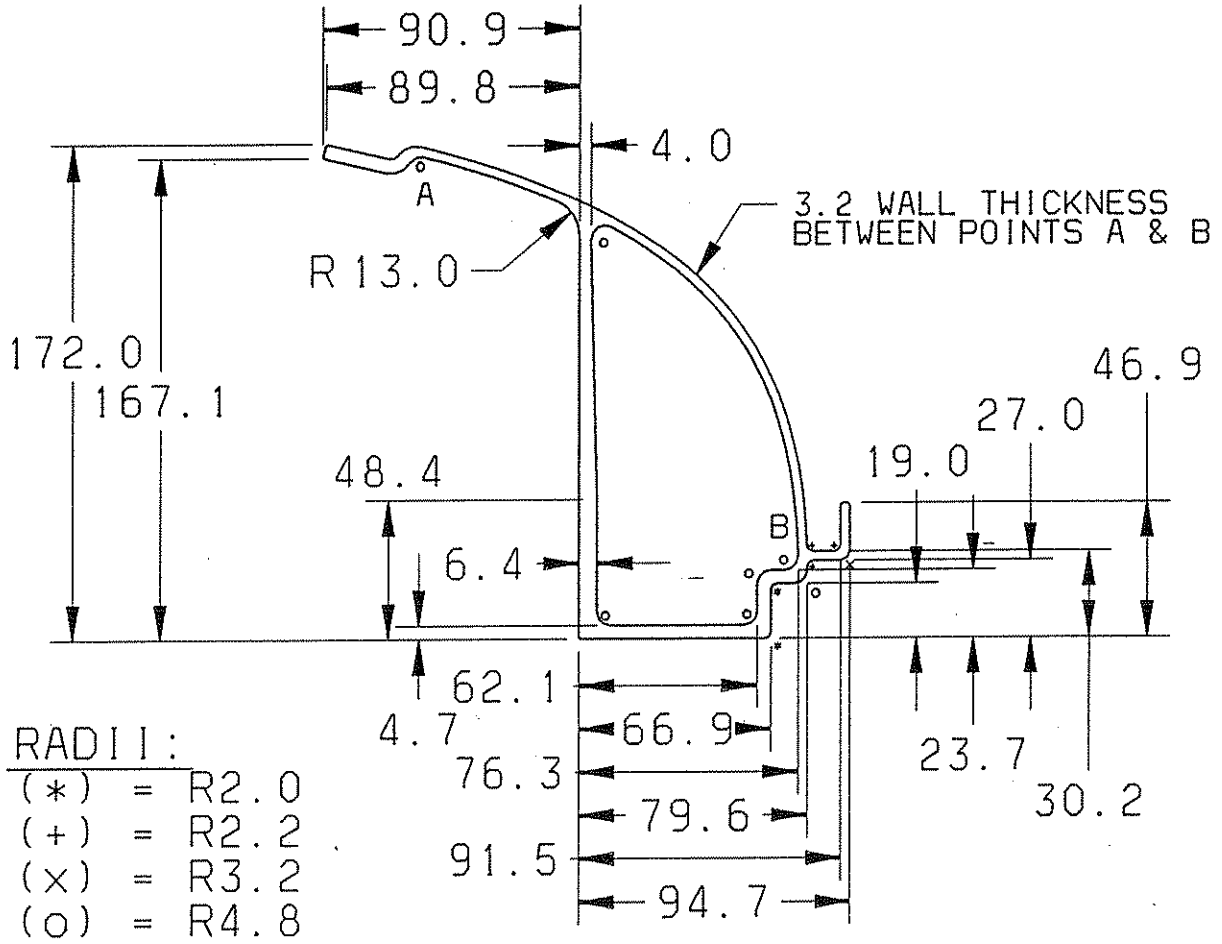
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-10	12/05/97	STH	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN: DEK	TITLE: EXTRUSION, ROOF, SIDE	DRAWING NUMBER: 48-25301	
APPRV: DEK			
DATE: 12/15/97	FREIGHTLINER CORPORATION, PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. mm.	WEIGHT KG/M	F/L SPEC NO.
6061-T6	2260.0	612.5	48-25301-000

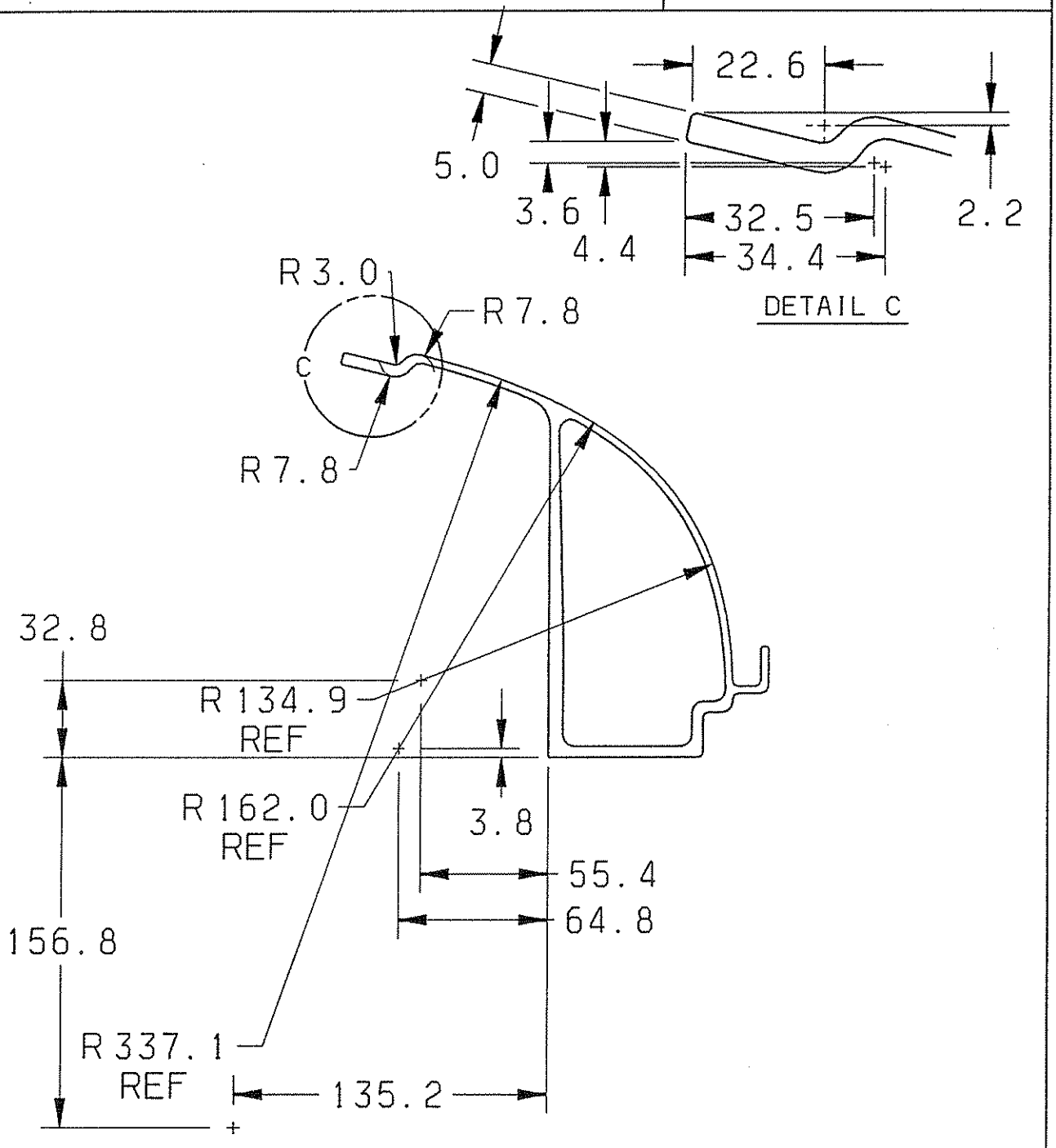
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-28	12/15/97	DEK	INITIAL RELEASE

ADRIENNE CHILBERG

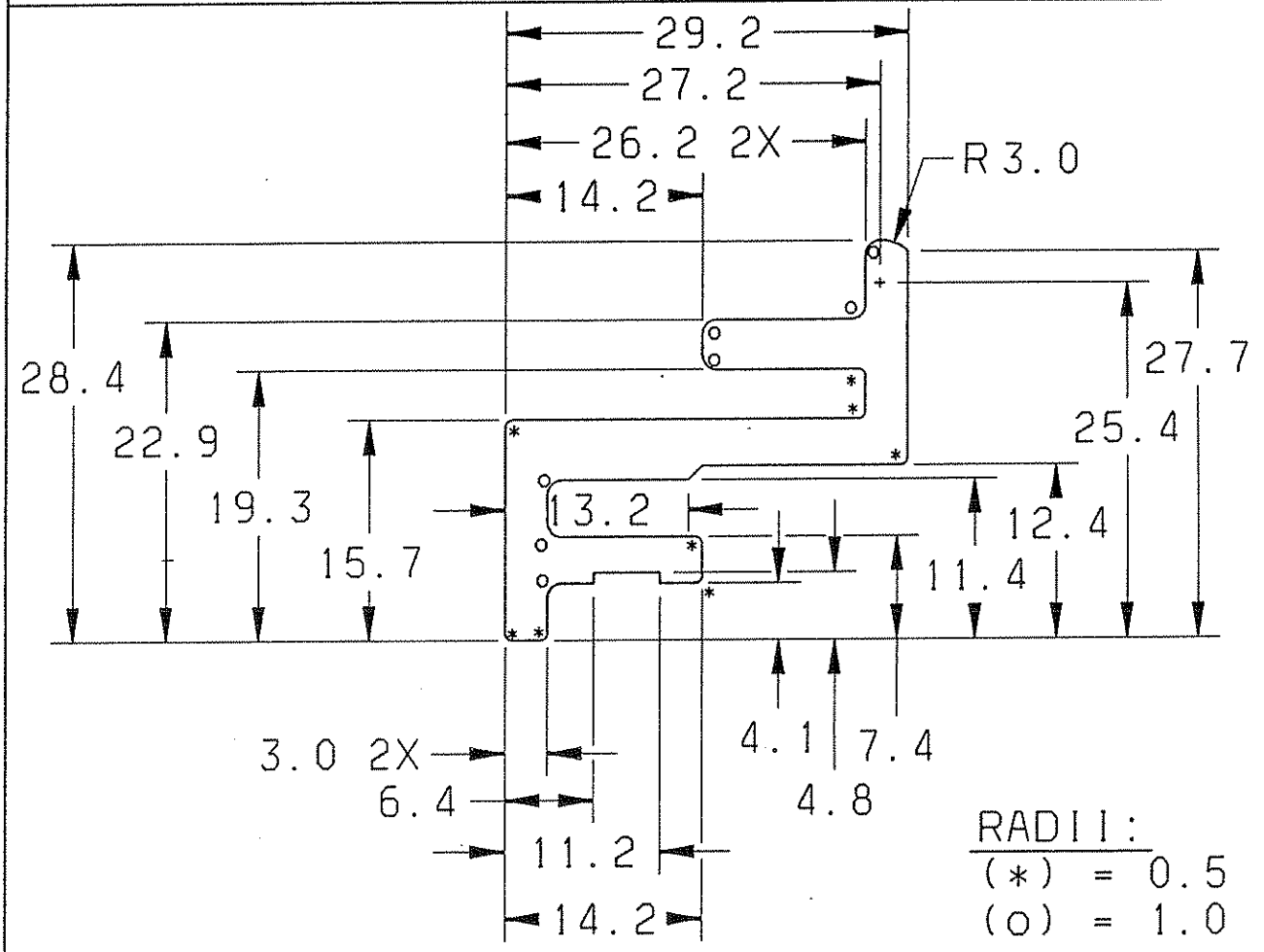
DRAWN	DEK	TITLE	DRAWING NUMBER
APPRV	DEK	EXTRUSION, ROOF, SIDE	48-25301
DATE	12/15/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2 / CHG. LTR. -
CATIA ORIGINAL			



CHG	JOB NO	DATE	BY	REVISION
-	P02211-28	12/15/97	DEK	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	TCM	TITLE EXTRUSION, BOX, BATTERY	DRAWING NUMBER 48-25302
APPRV	DEK		
DATE	12/17/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. mm	WEIGHT LB/M	F/L SPEC NO.
6061-T6	259.1	1.5	48-25302-000

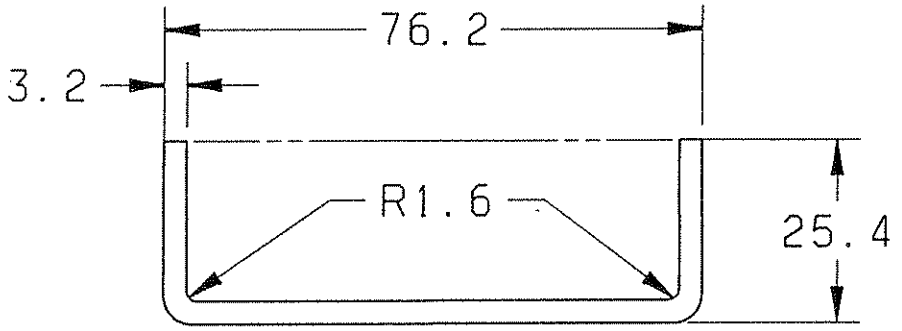
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-07	12/17/97	TCM	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	TCM	TITLE	DRAWING NUMBER
APPRV	DEK	EXTRUSION, CHANNEL SIDEWALL, SPACER	48-25303
DATE	12/17/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	380.2	2.3	48-25303-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P02211-17	12/17/97	TCM	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	ADHESIVE-TAPE PAD	48-25304	
DATE	01/21/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A PRE-CUT HIGH PERFORMANCE TAPE SHEET WITH A DURABLE FILM BACKING AND AGGRESSIVE ADHESIVE TO PROVIDE ADHESION TO MANY TYPES OF SURFACES.

APPLICATION: FOR PROTECTION OF SURFACES OR AS A VAPOR BARRIER.

SPECIFICATION NUMBER:

COLOR	MANUFACTURER'S PART NUMBER	FREIGHTLINER SPECIFICATION NUMBER
CLEAR	3M SCOTCH BRAND SCOTCHPAD TAPE PAD #822	48-25304-000

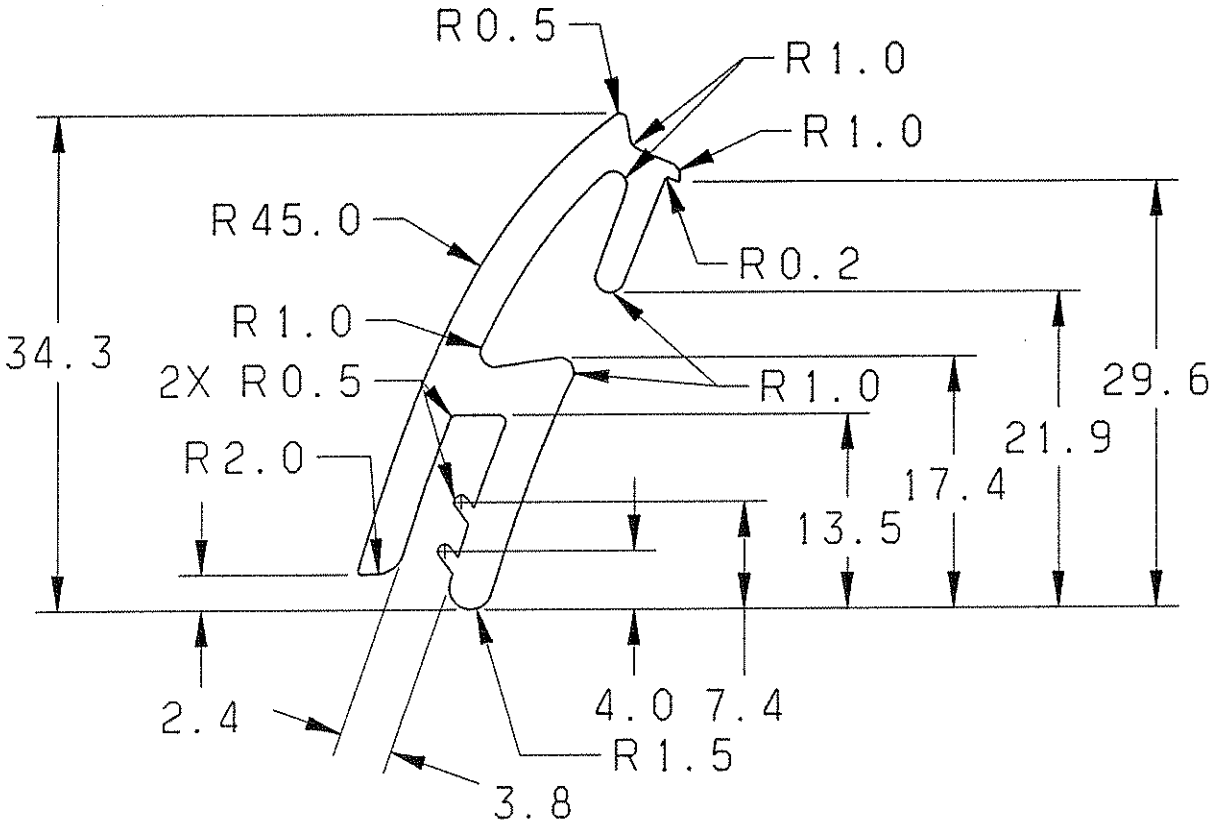
ENGINERING NOTES:

1. TYPICAL PHYICAL PROPERTIES (FOR REFERENCE)
   ADHESION TO STEEL (ASTM D3330): 55 OZ/IN WIDTH
   TENSILE CROSSWISE (ASTM D3759): 35 LBS/IN WIDTH
   TENSILE LENGTHWISE (ASTM D3759): 70 LBS/IN WIDTH
   ELONGATION AT BREAK (ASTM D3759): 160%

2. MATERIAL:
   BACKING- 2 MIL BIAXIALLY ORIENTED FILM
   ADHESIVE- PRESSURE SENSITIVE RUBBER RESIN

CHG	JOB NO	DATE	BY	REVISION
-	P00726-15	01/21/98	DAJ	INITIAL LOAD

DRAWN	NXM	TITLE EXTRUSION TRIM SEAL	DRAWING NUMBER 48-25305	
APPRV	XXX			
DATE	01/21/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



SCALE 2:1

MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
ASTM D2000 M BA910C12F17	195.37	0.46	48-25305-000

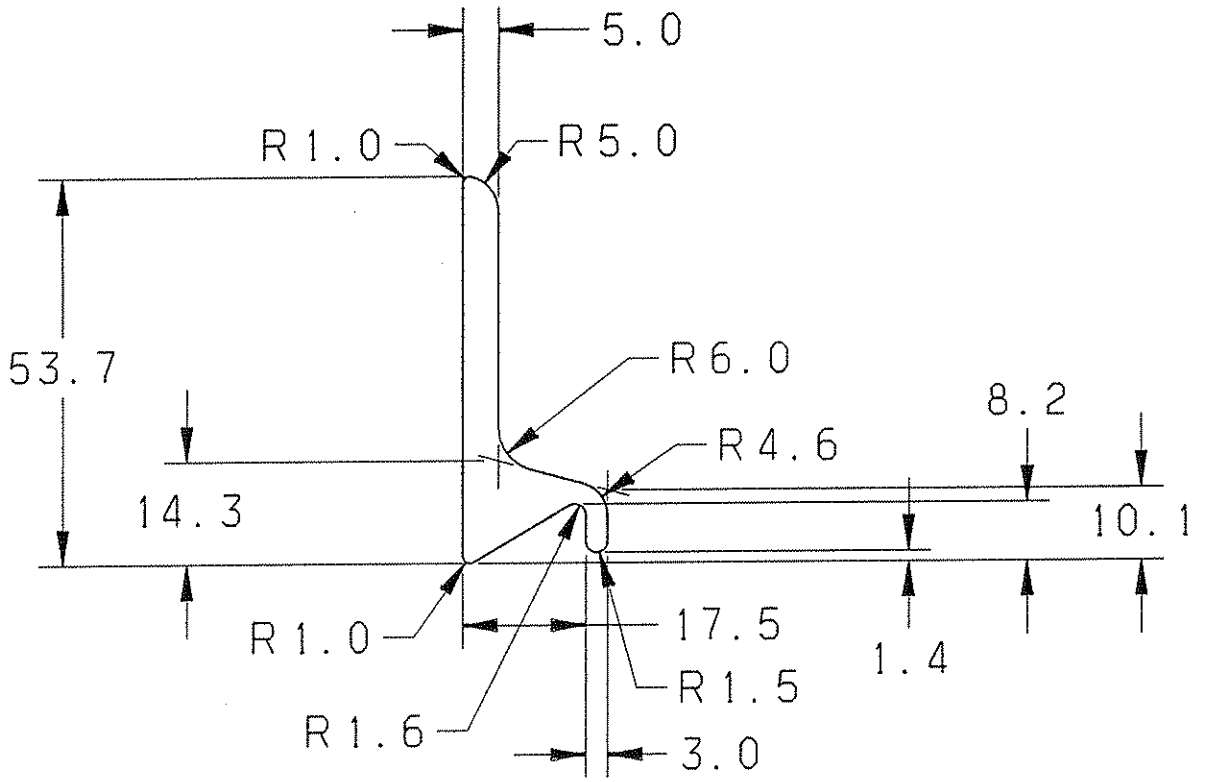
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER RUBBER ASSOCIATION COMMERCIAL E3 STANDARDS FOR EXTRUDED SHAPES.

CHG	JOB NO	DATE	BY	REVISION
-	P2D241-26	01/21/98	TAL	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	LWA	TITLE EXTRUSION-ALUMINUM EXTR-BBOX, OVR RAIL, LOWER LATCH	DRAWING NUMBER 48-25306
APPRV	BRG		
DATE	01/28/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	0.580	0.058	48-25306-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES: PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P00099-06	01/28/98	LWA	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	ADHESIVE - WEATHERSTRIP	48-25307	
DATE	01/26/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A STRONG, FLEXIBLE, FAST DRYING ADHESIVE WITH GOOD HIGH TEMPERATURE & CREEP RESISTANCE.

APPLICATION: FOR BONDING WEATHERSTRIPPING, RUBBER & FABRIC TO METALS & PAINTED SURFACES IN TRUCK CABS. ALSO BONDS RUBBER TO RUBBER.

COLOR	VENDOR/PART NO.	FREIGHTLINER SPEC NUMBER
BLACK	3M WEATHERSTRIP #08011	48-25307-000

SPECIFICATIONS:

1. MATERIAL (BASE): SYNTHETIC ELASTOMER

2. PHYSICAL PROPERTIES:

DENSITY (LBS/GAL APPRX.)	6.8
FLASH POINT °F	-14
VISCOSITY (CPS) BROOKFIELD VISCOMETER	7500/18000
SOLID CONTENT (APPRX.)	36%
SERVICE TEMPERATURE °F	UP TO 250

CHG	JOB NO	DATE	BY	REVISION
-	P03807-01	01/26/98	DAJ	INITIAL LOAD

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	ADHESIVE - WEATHERSTRIP	48-25308	
DATE	01/26/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES A STRONG, FLEXIBLE, RUBBERY FAST DRYING ADHESIVE WITH GOOD HIGH TEMPERATURE, OIL, & WATER RESISTANCE.

APPLICATION: FOR BONDING WEATHERSTRIPPING, GASKETS, CLOTH & VINYL TO WOOD, METALS, PAINTED SURFACES, AND SOME PLASTICS IN TRUCK CABS.

COLOR	VENDOR/PART NO.	FREIGHTLINER SPEC NUMBER
YELLOW	3M SUPER WEATHERSTRIP #08001	48-25308-000

SPECIFICATIONS: -000

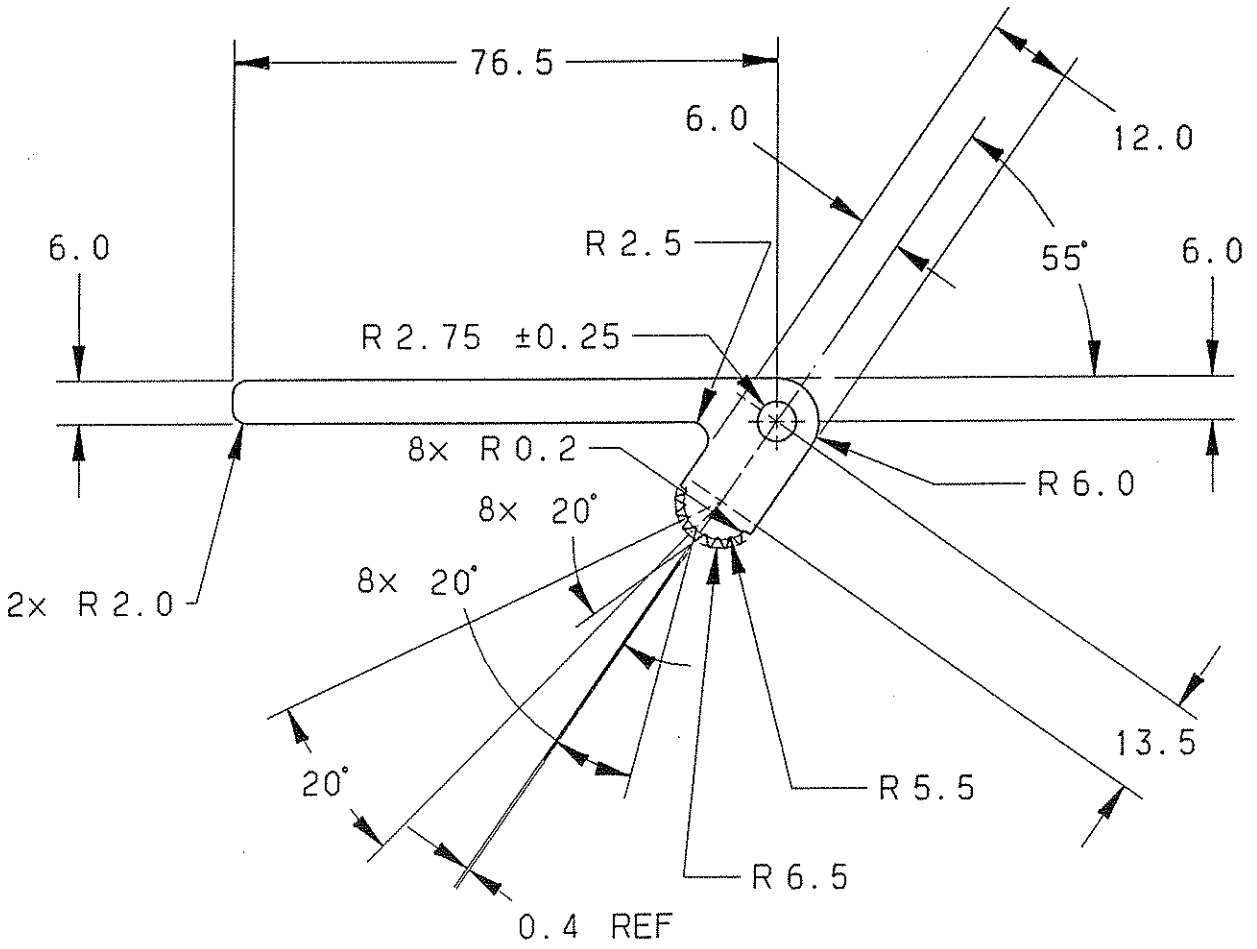
1. MATERIAL (BASE): NEOPRENE RUBBER

2. PHYSICAL PROPERTIES:

DENSITY (LBS/GAL APPRX.)	7.6
FLASH POINT °F	-14
VISCOSITY (CPS) BROOKFIELD VISCOMETER	4500
SOLID CONTENT (APPRX.)	39%
SERVICE TEMPERATURE °F	-20 TO 300

CHG	JOB NO	DATE	BY	REVISION
-	P04335-03	01/26/98	DAJ	INITIAL LOAD

DRAWN	PMS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION, LEVER TV/STORAGE CBNT P2 CLASS	48-25311
DATE	02/12/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT Kg/M	F/L SPEC NO.
6061-T6 OR 6063-T6	681	1.89	48-03XXX-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P00699-23	02/12/98	PMS	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	PTF	TITLE	DRAWING NUMBER	
APPRV	AJF	PAINT-INSULATING	48-25312	
DATE	02/11/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: This specification identifies a general purpose latex based insulation which comes in liquid form.

APPLICATION: Apply on any clean, dry substrate which is free from oil, grease, wax or dirt. Apply by use of brush, roller, or spray. This is a one-coat system with a curing time of 24 hours under normal conditions.

SPECIFICATION NUMBERS:

PRODUCT	MANUFACTURER	FREIGHTLINER SPECIFICATION NUMBER
TEMP-COAT	UNIVERSAL COATINGS	48-25312-000

VENDOR: Universal Coatings, Inc.
(704) 483-5885

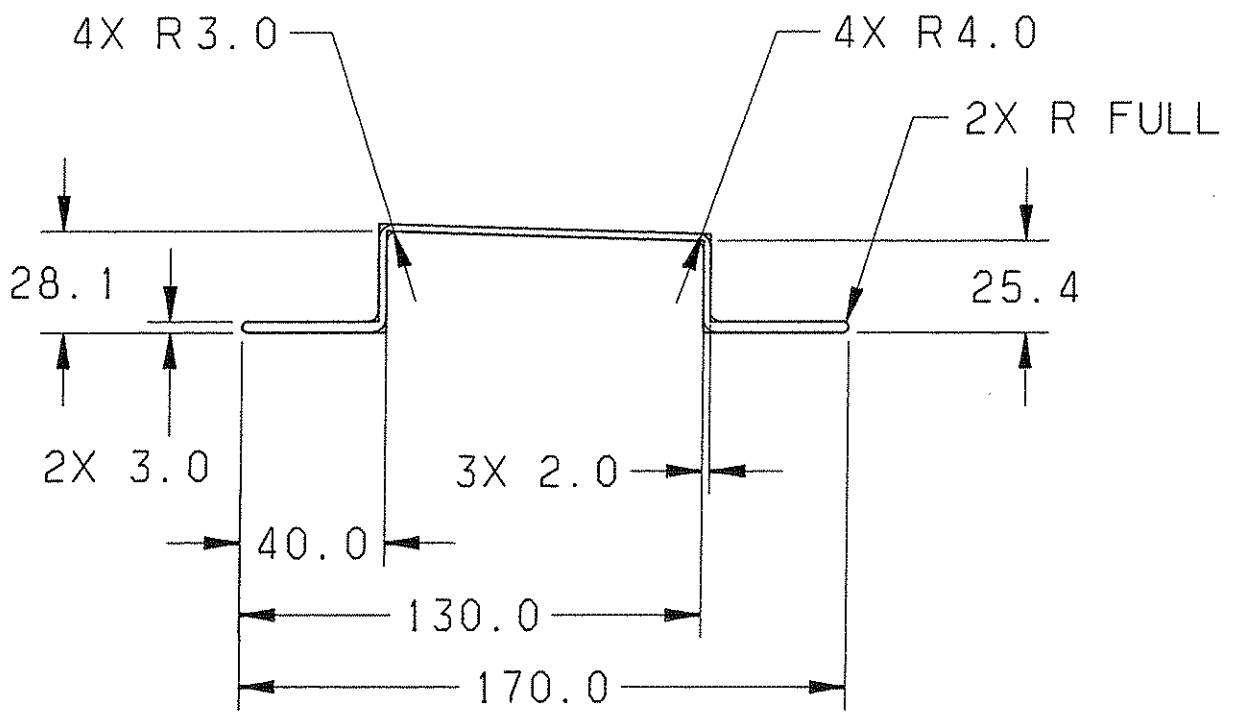
ENGINEERING NOTES:

1. Non-combustible
2. Spray coverage: 60 SF per gallon at 15 mil thickness on a flat surface.
3. Can be applied with surface temperatures from +45° to +550°F.
4. Spray equipment requirement: 5.4 GPM, 28:1 ratio airless sprayer with a .021 tip size.

CHG	JOB NO	DATE	BY	REVISION
-	P03636-24	02/11/98	PTF	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	SWP	TITLE EXTRUSION-ROOF BOW, FRONT SIDE C2	DRAWING NUMBER 48-25313
APPRV	HFW		
DATE	02/12/98		
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -



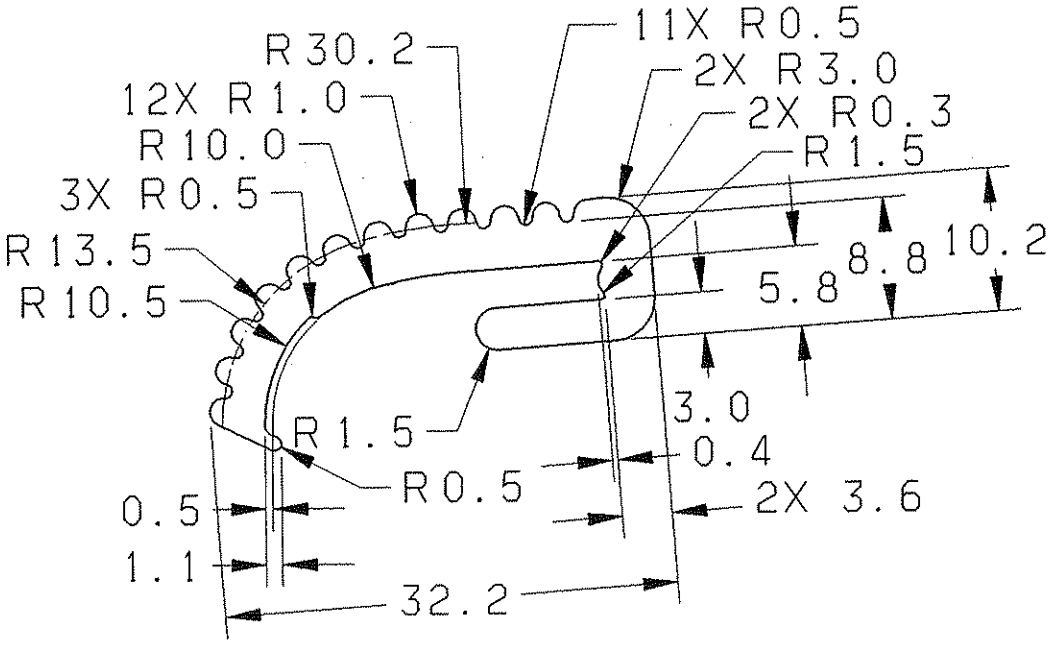
MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
ALUMINUM 6005-T5	515.28	3.08	48-25313-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P2D221-36	02/12/98	SWP	INITIAL RELEASE

DRAWN	ARM	TITLE	DRAWING NUMBER	
APPRV	TAL	EXTRUSION STEP TREAD	48-25314	
DATE	03/17/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. A
CATIA ORIGINAL				



-000 DETAIL
SCALE 2:1

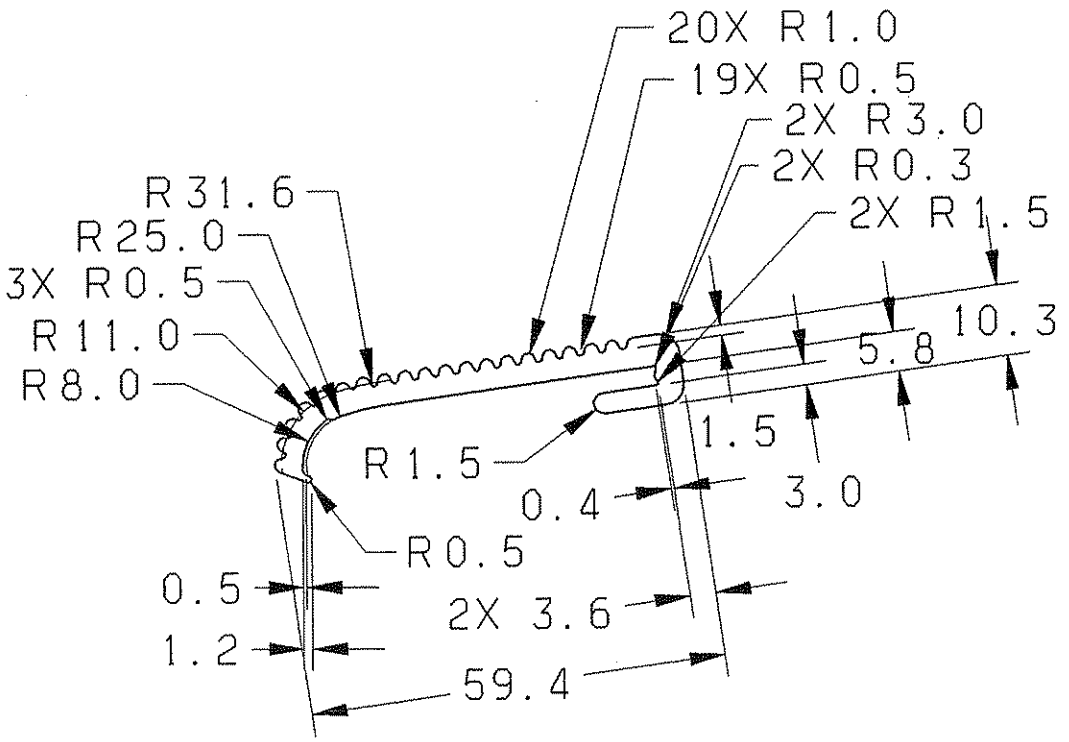
MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
ASTM D2000 M3BA810A14B13C12F17	187	.51	48-25314-000
ASTM D2000 M3BA810A14B13C12F17	289	.78	48-25314-001

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER RUBBER ASSOCIATION RMA CLASS 2 PRECISION (E2) STANDARDS FOR EXTRUDED SHAPES.

CHG	JOB NO	DATE	BY	REVISION
-	P2D190-21	03/17/98	ARM	INITIAL RELEASE
A	P06431-32	03/31/98	ARM	MODIFIED NOTE 3

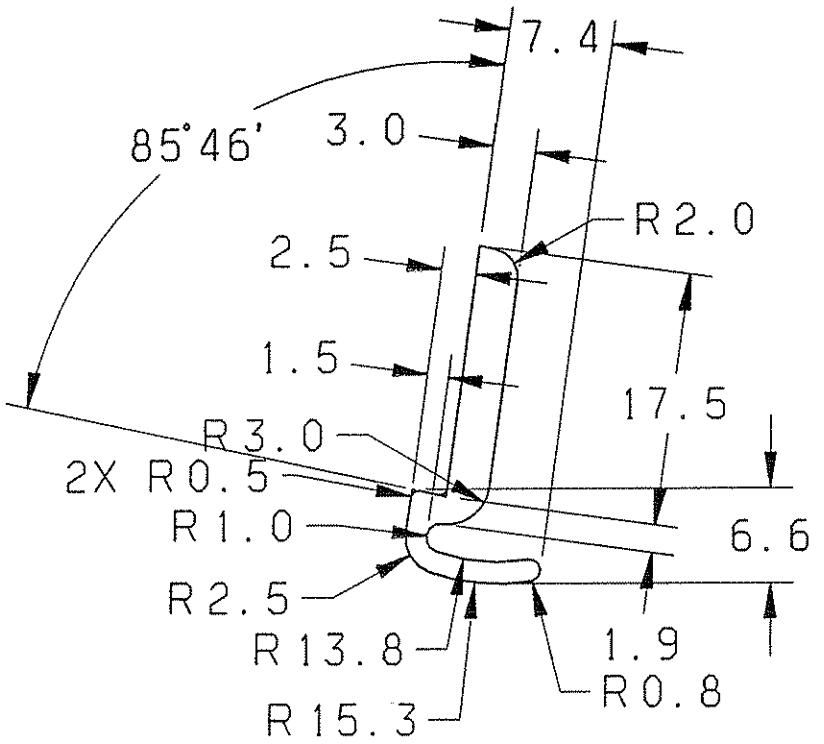
DRAWN	ARM	TITLE	DRAWING NUMBER	
APPRV	TAL	EXTRUSION STEP TREAD	48-25314	
DATE	03/17/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. A
CATIA ORIGINAL				



-001 DETAIL
SCALE 1:1

CHG	JOB NO	DATE	BY	REVISION
-	P2D190-21	03/17/98	ARM	INITIAL RELEASE
A	P06431-32	03/31/98	ARM	SEE SHEET 1 OF 2.

DRAWN	ARM	TITLE	DRAWING NUMBER	
APPRV	TAL	EXTRUSION TRIM SEAL	48-25315	
DATE	03/17/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



SCALE 2:1

MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
ASTM D2000 M BA910C12F17	77.2	.18	48-25315-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER RUBBER ASSOCIATION RMA CLASS 2 PRECISION (E2) STANDARDS FOR EXTRUDED SHAPES.

CHG	JOB NO	DATE	BY	REVISION
-	P2D241-35	03/17/98	ARM	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC-KNIT SEATING QUALITY	48-25317	
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A KNIT FABRIC.

APPLICATION: TRIM AND SEATING QUALITY - FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SEAT CUSHIONS AND BACKS AND WALL PANELS.

SPECIFICATION NUMBERS:

SEATING AND TRIM QUALITY.

COLOR	MANUFACTURERS NO.		FREIGHTLINER PART NUMBER
SADDLE TAN			48-25317-100
RANGE RED			48-25317-200
HORIZON BLUE			48-25317-300
SAGEBRUSH SILVER			48-25317-400
FLINT BLACK			48-25317-500

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE
A	P03568-65	06/08/98	SRL	SEE SHEET 4

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC-KNIT SEATING QUALITY	48-25317	
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. A
CATIA ORIGINAL				

ENGINEERING REQUIREMENTS

1.0 GENERAL REQUIREMENTS

DESCRIPTION

THIS SPECIFICATION QUALIFIES KNIT TYPE FABRICS THAT ARE SUITABLE FOR USE AS TRUCK SEAT UPHOLSTERY AND/OR INTERIOR TRIM. IT ALSO DESCRIBES THE GENERAL REQUIREMENTS FOR FABRIC PROPERTIES, IDENTIFICATION AND QUALITY.

DYE METHOD

UNLESS OTHERWISE SPECIFIED, FABRIC WILL BE PIECE DYED.

ALIGNMENT: (BOW AND BIAS)

THE DEGREE OF BOW AND BIAS IN THE FILLING DIRECTION SHALL NOT EXCEED 1/2 INCH FROM SELVAGE TO CENTER, ABOVE OR BELOW THE HORIZONTAL LINE, OR A TOTAL OF ONE INCH FROM SELVAGE TO SELVAGE ABOVE OR BELOW THE HORIZONTAL COMBINED. THIS REQM'T DOES NOT APPLY TO UNBACKED WOVEN MATERIAL.

SEAM STRENGTH: FORD BN 119-01

THE JOINING SEAM SHALL RESIST SLIPPAGE OF ANY YARN OR THREAD. THERE SHALL BE NO FRACTURES AT THE SEW LINE IN ANY MATERIAL. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED MATERIAL.

SEAM: JASO M-403 6-7

ABRASION: ASTM D3884

AFTER 500 CYCLES UNDER 250 GRAM LOAD USING CS-17 ABRASION WHEELS THER SHALL BE NO APPRECIABLE COLOR CHANGE OF THE ABRAIDED SURFACE AND NO VISIBLE YARN RUPTURES

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE
A	P03568-65	06/08/98	SRL	SEE SHEET 4

ADRIENNE CHILBERG

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC-KNIT SEATING QUALITY	48-25317	
DATE	03/18/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. A

GENERAL REQUIREMENTS (CONT'D)

COLORFASTNESS (CROCKING): AATCC TEST METHOD 8

A CROCKING TEST PERFORMED WET AND DRY SHALL SHOW NO APPRECIABLE STAINING OF THE CONTACT FABRIC AND HAVE A MINIMUM AATC RATING OF FOUR (4) DRY AND THREE (3) WET WHEN COMPARED TO THE AATCC COLOR TRANSFERENCE EVALUATION CHART.

COLORFASTNESS (FADE:AATCC TEST METHOD 16A

THERE SHALL BE NO OFF TONE COLOR ALTERATION AFTER EXPOSURE TO 80 HOUR CARBON ARC FADEOMETER TEST.

BLEEDING AND PERSPIRATION : AATCC TEST METHOD 15

THE CONTACT FABRIC SHALL REMAIN VIRTUALLY UNSTAINED AND TEST SAMPLE SHALL SHOW NO APPARENT CHANGE IN COLOR.

TENSILE STRENGTH (WET AND DRY): ASTM D5034

MINIMUM REQUIREMENTS TO BE DETERMINED BY FABRIC SELECTED.

FLAMMABILITY REQUIREMENT: FMVSS-302

MATERIAL SUPPLIED TO THIS SPECIFICATION SHALL CONFORM TO AND BE CERTIFIED BY THE FABRIC SUPPLIER TO MEET THE REQUIREMENTS OF THE FEDERAL MOTOR VEHICLE SAFETY STANDARD#302..... FLAMMABILITY OF INTERIOR MATERIALS.

IDENTIFICATION

THE BACK OF FABRIC SHALL REFLECT MANUFACTURERS INITIALS WITH THE MONTH AND YEAR OF FABRICATION EQUALLY SPACED A MINIMUM OF (5) TIMES ACROSS THE WIDTH AND LINEAR SPACING OF NOT MORE THAN TWELVE (12) INCHES.

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE
A	P03568-65	06/08/98	SRL	SEE SHEET 4

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC-KNIT SEATING QUALITY	48-25317	
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4	CHG. LTR. A
CATIA ORIGINAL				

2.0 SPECIFIC REQUIREMENTS:

REQUIREMENT	SPECIFICATION		TEST METHOD
PILE YARN	95/24 DUAL		--------
WARP YARN BACKING	70/24 POLYESTER		--------
FILLING YARN-BACKING	70/24 POLYESTER		--------
COURSES: ENDS/INCH	58/58	2%	--------
WALES/INCH	34	2%	--------
PILE TUFTS/SQ INCH	N/A	%	--------
FINISHED WT: OZS/SQ YD	9.52 OZ	5%	--------
BACK COATING TYPE:	SPRAY COAT		--------
FINISHED WIDTH:	54"		

SEAM STRENGTH	RESIST SLIPPAGE OF ANY SINGLE THREAD-NO FRACTURES AT SEW LINE	ASTM D-1683
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE	ASTM D-3884
COLORFASTNESS (CROCK)	DRY (4) - WET (3)	AATCC TEST #15
COLORFASTNESS (FADE)	80 HOURS FDA-R NO OFF TONE FADE	AATCC TEST #16A
BLEED & PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR COLOR CHANGE	AATCC TEST #15
TENSILE STRENGTH(MIN)	DRY-150 LBS. WET-150 LBS.	ASTM D5034
TEAR STRENGTH (MIN)	WARP: 12 LBS. FILL: 12 LBS.	ASTM D5587
FLAMMABILITY RESISTANCE	MAX. BURN RATE 4" MIN.	FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE
A	P03568-65	06/08/98	SRL	TEAR STRENGTH (MIN) UPDATED

DRAWN	GJB	TITLE THREAD FILAMENT NYLON OR POLYESTER	DRAWING NUMBER 48-25318
APPRV	KKK		
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. A
CATIA ORIGINAL			

SCOPE: THIS SPECIFICATION IDENTIFIES NYLON OR POLYESTER THREAD.

APPLICATION: UPHOLSTERY SEWING, ETC.

SPECIFICATION NUMBERS:

COLOR	MFR'S COLOR	MANUFACTURERS NUMBER		FREIGHTLINER PART NUMBER
		CCS	AMK	
SADDLE TAN	MED. BROWN	235		48-25318-100
RANGE RED	DK. CARDINAL	2007		48-25318-200
HORIZON BLUE	NAVY #3	6975		48-25318-300
SAGEBRUSH SILVER	DK. SILVER	36139		48-25318-400
FLINT BLACK	BLACK	56033		48-25318-500

SPECIFICATIONS:

1. MATERIAL: FILAMENT NYLON OR POLYESTER SIZE TEX 70 BONDED THREAD
2. FINISH: BONDED
3. COLOR: SEE TABLE

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE
A	P03568-03	05/23/98	KKK	FILAMENT NYLON OR POLYESTER WAS COTTON

DRAWN	KKK	TITLE	DRAWING NUMBER
APPRV	KKK	CARPET 16 OZ POLYPROPYLENE	48-25319
DATE	05/23/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

SCOPE: THIS SPECIFICATION IDENTIFIES A CAB INTERIOR CARPET

APPLICATION: A 100% PP FACE 1/8 GAUGE CUT/UNCUT CONSTRUCTION CARPET THAT IS SUITABLE FOR USE AS AN AUTOMOTIVE TRIM. SIDEWALL COVERING AND OTHER APPLICATIONS AS APPROVED.

SPECIFICATION NUMBERS:

DORSETT PATTERN NAME: STALLION

COLOR	PATTERN AND/OR COLOR NO.	DORSETT PART NUMBER	FREIGHTLINER PART NUMBER
	SADDLE TAN	3220	48-25319-100
	RANGE RED	3215	48-25319-200
	HORIZON BLUE	3202	48-25319-300
	SAGEBRUSH SILVER	3207	48-25319-400
	FLINT BLACK	3201	48-25319-500

NOTES:

1. BACKCOATING: LATEX 23 OZ
2. FACEWEIGHT: YARN - 16.0 OZ

CHG	JOB NO	DATE	BY	REVISION
-	P03568-03	05/23/98	KKK	INITIAL RELEASE

DRAWN	KKK	TITLE	DRAWING NUMBER	
APPRV	KKK	CARPET 16 OZ POLYPROPYLENE	48-25319	
DATE	05/23/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. -
CATIA ORIGINAL				

GENERAL REQUIREMENTS

DESCRIPTION:

PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY (MOLDED OR OTHERWISE FABRICATED)

CONSTRUCTION REQUIREMENTS

PILE YARN

YARN TYPE.....100% BCF POLYPROPYLYNE

YARN SIZE.....2000/1 OR 2750/1 DENIER

TWIST AND DIRECTION.....0.0

TUFTING FABRIC

THE 24X13 PICK PLAIN WOVEN POLYPROPYLENE FABRIC SHALL BE UNIFORM IN CONSTRUCTION AND SHALL HAVE A MASS BETWEEN 102.5 G./SQ.M. (3.0 OZ./SQ.YD.) AND 114 G./SQ.M. (3.4 OZ./SQ.YD.)

BACKCOATING TYPE

DASH NUMBER -X00.....LATEX

DYE METHOD..... SOLUTION DYED YARN

FINISHED CARPET

FINISHED WIDTH.....182.88 CM OR 72 IN.

NEEDLE GAUGE.....3.17MM (1/8 IN.) CUT

FINISHED ROW COUNT OF PILE.....8.0 ROWS/IN OR 31.5 ROWS /10 CM

FINISHED STITCH COUNT OF PILE.....	2000 DEN.	2750 DEN.
	12.3 ST./IN.	9.0 ST./IN.

HEIGHT OF PILE.....5.55MM (0.21875 IN.)

PATTERN DIRECTION

THEIR IS A MACHINE PATTERN IN THE CARPET RUNNING DOWN THE ROLL. CARE MUST BE EXERCISED IN FABRICATING PARTS TO INSURE PROPER ALIGNMENT OF PATTERN.

CHG	JOB NO	DATE	BY	REVISION
-	P03568-03	05/23/98	KKK	INITIAL RELEASE

DRAWN	KKK	TITLE CARPET 16 OZ POLYPROPYLENE	DRAWING NUMBER 48-25319
APPRV	KKK		
DATE	05/23/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

GENERAL REQUIRMENTS (CONTINUED)

FINISHED MASS [-X00]

	G/SQ M	OZ/SQ YD
PILE	542	16
BACKING FABRIC*	108	3.2
BACKING COATING	441	13
TOTAL*	1091	32.2

* HEAVIER BACKING FABRIC MAY BE SPECIFIED FOR SOME APPLICATIONS.

PERFORMANCE REQUIRMENTS

TENSILE STRENGHT.....MD(WARP)...MINIMUM 445 N (100 LB)
AMD (FILLING)...MINIMUM 356 N (80 LB)

TEAR RESISTANCE.....MD (ACROSS WARP)...MINIMUM 36 N (8 LB)
AMD (ACROSS FILLING)...MINIMUM 36 N (8 LB)

SHRINKAGE.....MD (WARP)...MAXIMUM 1.0%
AMD (FILLING)...MAXIMUM 1.0%

WEAR RESISTANCE-1600 CYCLES (TABER ABRADER, H-18 WHEELS 1000 G LOAD)...THE CARPET SURFACE SHALL NOT BE WORN DOWN TO THE TOP SURFACE OF THE BACKING FABRIC FOR MORE THAN 10% OF THE ABRADED AREA

RESISTANCE TO CROCKING-AATCC.RATING...DRY..MINIMUM 2.5
WET..MINIMUM 2.5

RESISTANCE TO BLEED-AATC.....RATING.....MINIMUM 2.5

FADE RESISTANCE**.....NO FADE OR COLOR CHANGE LOWER THAN THE RATING (80 STANRDARD FADEOMETER HOURS) 3-4 ON THE ISO GRAY SCALE FOR EVALUATING CHANGE IN COLOR.

** FADE RESISTANCE TESTS ARE REQUIRED ONLY FOR AREAS EXPOSED TO SUNLIGHT.

CHG	JOB NO	DATE	BY	REVISION
-	P03568-03	05/23/98	KKK	INITIAL RELEASE

DRAWN	KKK	TITLE	DRAWING NUMBER	
APPRV	KKK	CARPET 16 OZ POLYPROPYLENE	48-25319	
DATE	05/23/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4	CHG. LTR. -
CATIA ORIGINAL				

METHODS OF TESTING

TOTAL MASS.....ASTM D418, SECTION 7
(SPECIMEN SIZE -12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD, AVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED 2"/MIN READ PEAK LOAD, AVERAGE OF 5 TESTS)

SHRINKAGE, MAX.....SAE J883 (REMEASURE AFTER 24 HRS. AT STANDARD CONDITIONS)

WEAR RESISTANCE.....TABER ABRADER (H-18 WHEEL, 1000 G LOAD, 1600 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

RESISTANCE TO BLEED.....CUSTOMER TEST:
#1 MULTIFIBER CLOTH-ACETATE COTTON-NYLON-SILK-VISCOSE-WOOL. DISH WITH MULTIFIBER CLOTH, CARPET FACE DOWN RUNNING OPPOSITE TO CLOTH, 5 GLASS PLATES ON TOP, 25CC WATER, SOAK FOR 15 MINUTES, SQUEEZE OUT EXCESS WATER, THEN PUT IN LARGER OVEN FOR 4 HOURS. LETTING THEM IN DISHES.

FADE RESISTANCE.....AATCC 16A, CARBON ARC

FLAMMABILITY.....FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 302

CHG	JOB NO	DATE	BY	REVISION
-	P03568-03	05/23/98	KKK	INITIAL RELEASE

DRAWN	GJB	TITLE CARPET 20 OZ POLYPROPYLENE	DRAWING NUMBER 48-25320
APPRV	KKK		
DATE	05/07/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

SCOPE: THIS SPECIFICATION IDENTIFIES A CAB INTERIOR CARPET

APPLICATION: A 100% PP FACE 1/8 GAUGE CUT/UNCUT CONSTRUCTION CARPET THAT IS SUITABLE FOR USE AS AN AUTOMOTIVE TRIM. FLOOR COVERING AND OTHER APPLICATIONS AS APPROVED.

SPECIFICATION NUMBERS:

DORSETT PATTERN NAME: STALLION

COLOR	PATTERN AND/OR COLOR NO.	DORSETT PART NUMBER	FREIGHTLINER PART NUMBER
	SADDLE TAN	3320	48-25320-100
	RANGE RED	3315	48-25320-200
	HORIZON BLUE	3302	48-25320-300
	SAGEBRUSH SILVER	3307	48-25320-400
	FLINT BLACK	3301	48-25320-500

NOTES:

1. BACKCOATING: LATEX 23 OZ
2. FACEWEIGHT: YARN - 20.0 OZ

CHG	JOB NO	DATE	BY	REVISION
-	P03568-03	05/07/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	CARPET 20 OZ POLYPROPYLENE	48-25320	
DATE	05/07/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. -
CATIA ORIGINAL				

GENERAL REQUIREMENTS

DESCRIPTION:

PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY (MOLDED OR OTHERWISE FABRICATED)

CONSTRUCTION REQUIREMENTS

PILE YARN

YARN TYPE.....100% BCF POLYPROPYLYNE

YARN SIZE.....2000/1 OR 2750/1 DENIER

TWIST AND DIRECTION.....0.0

TUFTING FABRIC

THE 24X13 PICK PLAIN WOVEN POLYPROPYLENE FABRIC SHALL BE UNIFORM IN CONSTRUCTION AND SHALL HAVE A MASS BETWEEN 102.5 G./SQ.M. (3.0 OZ./SQ.YD.) AND 114 G./SQ.M. (3.4 OZ./SQ.YD.)

BACKCOATING TYPE

DASH NUMBER -X00.....LATEX

DYE METHOD..... SOLUTION DYED YARN

FINISHED CARPET

FINISHED WIDTH.....182.88 CM OR 72 IN.

NEEDLE GAUGE.....3.17MM (1/8 IN.) CUT

FINISHED ROW COUNT OF PILE.....8.0 ROWS/IN OR 31.5 ROWS /10 CM

	2000 DEN.	2750 DEN.
FINISHED STITCH COUNT OF PILE.....	13.3 ST./IN.	9.6 ST./IN.

HEIGHT OF PILE.....7.14MM (0.28125 IN.)

PATTERN DIRECTION

THEIR IS A MACHINE PATTERN IN THE CARPET RUNNING DOWN THE ROLL. CARE MUST BE EXERCISED IN FABRICATING PARTS TO INSURE PROPER ALIGNMENT OF PATTERN.

CHG	JOB NO	DATE	BY	REVISION
-	P03568-03	05/07/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER
APPRV	KKK	CARPET 20 OZ POLYPROPYLENE	48-25320
DATE	05/07/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

GENERAL REQUIRMENTS (CONTINUED)

FINISHED MASS [-X00]

	G/SQ M	OZ/SQ YD
PILE	678	20
BACKING FABRIC	108	3.2
BACKING COATING	441	13
TOTAL*	1227	36.2

* HEAVIER BACKING FABRIC MAY BE SPECIFIED FOR SOME APPLICATIONS.

PERFORMANCE REQUIRMENTS

MASS -X00.....1.16 KG/SQ M (34.42 OZ/SQ YD)± 10%

TENSILE STRENGHT.....MD(WARP)...MINIMUM 445 N (100 LB)
AMD (FILLING)...MINIMUM 356 N (80 LB)

TEAR RESISTANCE.....MD (ACROSS WARP)...MINIMUM 36 N (8 LB)
AMD (ACROSS FILLING)...MINIMUM 36 N (8 LB)

SHRINKAGE.....MD (WARP)...MAXIMUM 1.0%
AMD (FILLING)...MAXIMUM 1.0%

WEAR RESISTANCE-5000 CYCLES...THE CARPET SURFACE SHALL NOT BE WORN DOWN TO THE TOP SURFACE OF THE BACKING FABRIC FOR MORE THAN 10% OF THE ABRADED AREA
(TABER ABRADER, H-18 WHEELS 1000 G LOAD)

RESISTANCE TO CROCKING-AATCC.RATING...DRY..MINIMUM 2.5
WET..MINIMUM 2.5

RESISTANCE TO BLEED-AATC.....RATING.....MINIMUM 2.5

FADE RESISTANCE**.....NO FADE OR COLOR CHANGE LOWER THAN THE RATING 3-4 ON THE ISO GRAY SCALE FOR EVALUATING CHANGE IN COLOR.
(80 STANRDARD FADEOMETER HOURS)

** FADE RESISTANCE TESTS ARE REQUIRED ONLY FOR AREAS EXPOSED TO SUNLIGHT.

CHG	JOB NO	DATE	BY	REVISION
-	P03568-03	05/07/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE CARPET 20 OZ POLYPROPYLENE	DRAWING NUMBER 48-25320
APPRV	KKK		
DATE	05/07/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

METHODS OF TESTING

TOTAL MASS.....ASTM D418, SECTION 7
(SPECIMEN SIZE -12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD, AVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED 2"/MIN READ PEAK LOAD AVERAGE OF 5 TESTS.

SHRINKAGE MAX.....SAE J883 (REMEASURE AFTER 24 HRS. AT STANDARD CONDITIONS.

WEAR RESISTANCE.....TABER ABRADER (H-18 WHEEL, 1000 G LOAD, 5000 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

RESISTANCE TO BLEED.....CUSTOMER TEST:
#1 MULTIFIBER CLOTH-ACETATE COTTON-NYLON-SILK-VISCOSE-WOOL. DISH WITH MULTIFIBER CLOTH, CARPET FACE DOWN RUNNING OPPOSITE TO CLOTH. 5 GLASS PLATES ON TOP, 25CC WATER, SOAK FOR 15 MINUTES, SQUEEZE OUT EXCESS WATER, THEN PUT IN LARGER OVEN FOR 4 HOURS. LETTING THEM IN DISHES.

FADE RESISTANCE.....AATCC 16E, XENON ARC

FLAMMABILITY.....FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 302

CHG	JOB NO	DATE	BY	REVISION
-	P03568-03	05/07/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC - VINYL COATED 26 OZ PER LIN YARD	48-25321	
DATE	03/18/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION COVERS THE REQUIREMENTS FOR VINYL COATED FABRICS

APPLICATION: TRIM QUALITY - FOR LIGHT SERVICE SUCH AS COVERINGS FOR BACK PANELS, SUN VISORS, SLEEPER CURTAINS OR OTHER LIGHT SERVICE COMPONENTS.

SPECIFICATION NUMBERS:

PATTERN	COLOR	MANUFACTURERS NUMBER	FREIGHTLINER PART NUMBER
(NON-PERFORATED)	SADDLE TAN		48-25321-100
	RANGE RED		48-25321-200
	HORIZON BLUE		48-25321-300
	SAGEBRUSH SILVER		48-25321-400
	FLINT BLACK		48-25321-500

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC - VINYL COATED 26 OZ. PER LIN YARD	48-25321	
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3	CHG. LTR. -
CATIA ORIGINAL				

ENGINEERING REQUIREMENTS FOR THE FOLLOWING SPECIFICATION NUMBERS

1.0 GENERAL REQUIREMENTS

1.1 THE KNIT FABRIC SHALL BE MADE OF SUITABLE MAT'L TO SATISFY THE REQUIREMENTS IN SECTION 2.0

1.2 THE COVERING SHALL BE PLASTICIZED AND PIGMENTED. EXPANDED POLYVINYL CHLORIDE RESIN OR COPOLYMERS THEREOF, SO AS TO BE OF THE PROPER AND UNIFORM GAGE, FLEXIBLE, FREE FROM TACKINESS AND SUITABLE HAND.

1.3 THE COLOR GRAIN AND FINISH SHALL MATCH THE APPROVED MASTER SAMPLE.

2.0 SPECIFIC REQUIREMENTS

PROPERTY	TEST METHOD	REQUIREMENTS ±
WEIGHT, (OZ), LN/YD)	ASTM D751	26 LY 10%
THICKNESS, TOTAL INCH	ASTM D751	.090 MM
MINIMUM, INCH		.005
BREAKING STRENGTH LBS., MINIMUM WARP/FILL	CFFA-17 GRAB METHOD	83/70
TEAR STRENGTH	CFFA-16	7.7/7.9
LBS., MINIMUM	TRAPEZOID	
TEAR STRENGTH	CFFA-16	
SEAM STRENGTH, LBS. WARP/FILL	ASTM D1683	55/40
STRETCH, % MINIMUM WARP/FILL	CFFA-15	10/100

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC - VINYL COATED 26 OZ. PER LIN YARD	48-25321	
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3	CHG. LTR. -
CATIA ORIGINAL				

PROPERTY	TEST METHOD	REQUIREMENTS
SET, % MAXIMUM	CFFA-15	8/40
WARP/FILL COATING ADHESION LBS. MINIMUM WARP/FILL	CFFA-3	2.5/2.5
FLAMMABILITY (6)	SAEJ369	PASS(SE)
COLD CRACKING RESISTANCE	SAEJ323	-10 DEG F.
BLOCKING, MAXIMUM RATING	CFFA-4	2
CROCKING RESISTANCE	CFFA-7	GOOD
WET & DRY ABRASION RESISTANCE	ASTM-D-3597	0.100G(NOTE 5)
MAX. WT. LOSS (500 REV./500G./H18	TEST METH. D4157 FED. STD. 191A METHOD 5306 WYZENBEEK #10 COTTON DUCK	20,000 CYCLES

NOTES

1. ASTM=AMERICAN SOCIETY FOR TESTING AND MATERIALS
2. CFFA= CHEMICAL FABRICS AND FILM ASSOCIATION
3. SAE= SOCIETY OF AUTOMOTIVE ENGINEERS
4. FED STD= FEDERAL TEST METHOD STD. NO. 191A
5. NO VISIBLE LOSS OF COLOR OR GRAIN PATTERN IS ALLOWED.
6. THIS MATERIAL MUST ALSO PASS FMVSS NO. 302. FLAMMABLITY OF INTERIOR MATERIALS.

3.0 APPROVED SOURCE
SUPPLIERS SHALL HAVE THEIR MATERIAL TESTED IN ACCORDANCE WITH THIS SPECIFICATION BY AN INDEPENDENT LABORATORY AND THE RESULTS SUBMITTED TO FREIGHTLINER PURCHASING. NO SHIPMENTS SHALL BE MADE BY A NEW SOURCE UNTIL THE MATERIAL HAS BEEN APPROVED BY FREIGHTLINER ENGINEERING.

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE FABRIC - VINYL COATED 32 OZ. PER LN. YARD	DRAWING NUMBER 48-25322
APPRV	KKK		
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3 / CHG. LTR. -
CATIA ORIGINAL			

SCOPE: THIS SPECIFICATION COVERS THE REQUIREMENTS FOR VINYL COATED FABRICS.

APPLICATION: SEATING QUALITY -FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SEAT CUSHIONS AND BACKS, ENGINE TUNNEL TRIM OR OTHER PARTS WHICH MAY BE SUBJECT TO SEVERE SERVICE.

SPECIFICATION NUMBERS:

PATTERN	COLOR	MANUFACTURERS NUMBER	FREIGHTLINER PART NUMBER
SADDLE TAN			48-25322-100
RANGE RED			48-25322-200
HORIZON BLUE			48-25322-300
SAGEBRUSH SILVER			48-25322-400
FLINT BLACK			48-25322-500

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CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER
APPRV	KKK	FABRIC - VINYL COATED 32 OZ PER LN YARD	48-25322
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3 / CHG. LTR. -
CATIA ORIGINAL			

ENGINEERING REQUIREMENTS FOR THE FOLLOWING SPECIFICATION NUMBERS

1.0 GENERAL REQUIREMENTS

1.1 THE KNIT FABRIC SHALL BE MADE OF SUITABLE MAT'L TO SATISFY THE REQUIREMENTS IN SECTION 2.0

1.2 THE COVERING SHALL BE PLASTICIZED AND PIGMENTED. EXPANDED POLYVINYL CHLORIDE RESIN OR COPOLYMERS THEREOF, SO AS TO BE OF THE PROPER AND UNIFORM GAGE, FLEXIBLE, FREE FROM TACKINESS AND SUITABLE HAND.

1.3 THE COLOR GRAIN AND FINISH SHALL MATCH THE APPROVED MASTER SAMPLE.

2.0 SPECIFIC REQUIREMENTS

PROPERTY	TEST METHOD	REQUIREMENTS
WEIGHT, (OZ), SQ/YD)	ASTM D751	32 $\pm$ 10%
THICKNESS, TOTAL INCH	ASTM D751	1.02 MM
THICKNESS, SKIN		5 GA
BREAKING STRENGTH LBS, . MINIMUM WARP/FILL	CFFA-17 GRAB METHOD	85/102
TEAR STRENGTH LBS. , MINIMUM WARP/FILL	CFFA-16C TRAPEZOID METHOD	11/10.5
SEAM STRENGTH, LBS. WARP/FILL	ASTM D1683	60/45
STRETCH, % MINIMUM WARP/FILL	CFFA-15	8/80

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER
APPRV	KKK	FABRIC - VINYL COATED 32 OZ. PER LN YARD	48-25322
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3 / CHG. LTR. -
CATIA ORIGINAL			

PROPERTY	TEST METHOD	REQUIREMENTS
SET, % MINIMUM WARP/FILL	CFFA-15	5/35
COATING ADHESION LBS. MINIMUM WARP/FILL	CFFA-3	3.0/3.0
FLAMMABILITY (6)	SAEJ369	PASS(SE)
COLD CRACKING RESISTANCE	SAEJ323	-30 DEG F.
BLOCKING, MAXIMUM RATING	CFFA-4	2
CROCKING RESISTANCE (WET & DRY)	CFFA-7	GOOD
ABRASION RESISTANCE MAX. WT. LOSS (500 REV./500G./H18	FED STD. 191A WYZENBEEK #10 COTTON DUCK	.080G(NOTE 5) 1,000,000 CYCLES

NOTES

1. ASTM=AMERICAN SOCIETY FOR TESTING AND MATERIALS
2. CFFA= CHEMICAL FABRICS AND FILM ASSOCIATION
3. SAE= SOCIETY OF AUTOMOTIVE ENGINEERS
4. FED STD= FEDERAL TEST METHOD STD. NO. 191A
5. NO VISIBLE LOSS OF COLOR OR GRAIN PATTERN IS ALLOWED.
6. THIS MATERIAL MUST ALSO PASS FMVSS NO. 302, FLAMMABLITY OF INTERIOR MATERIALS.

3.0 APPROVED SOURCE

SUPPLIERS SHALL HAVE THEIR MATERIAL TESTED IN ACCORDANCE WITH THIS SPECIFICATION BY AN INDEPENDENT LABORATORY AND THE RESULTS SUBMITTED TO FREIGHTLINER PURCHASING. NO SHIPMENTS SHALL BE MADE BY A NEW SOURCE UNTIL THE MATERIAL HAS BEEN APPROVED BY FREIGHTLINER ENGINEERING.

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	TAPE - SEALANT TACKY TAPE	48-25323	
DATE	03/03/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A 100% SOLIDS, ASBESTOS-FREE BUTYL PSA TAPE SEALANT WITH EXCELLENT RESISTANCE TO WATER, EXTREMES IN TEMPERATURE AND ATMOSPHERIC CONTAMINATION.

APPLICATION: FOR SEALING LAP-TYPE JOINTS AND AREAS WHERE A MOLDABLE GASKET-LIKE SEAL IS REQUIRED.

COLOR	VENDOR/PART NO.	FREIGHTLINER SPEC NUMBER
GRAY	SCHNEE-MOREHEAD SM5229	48-25323-000

SPECIFICATIONS:

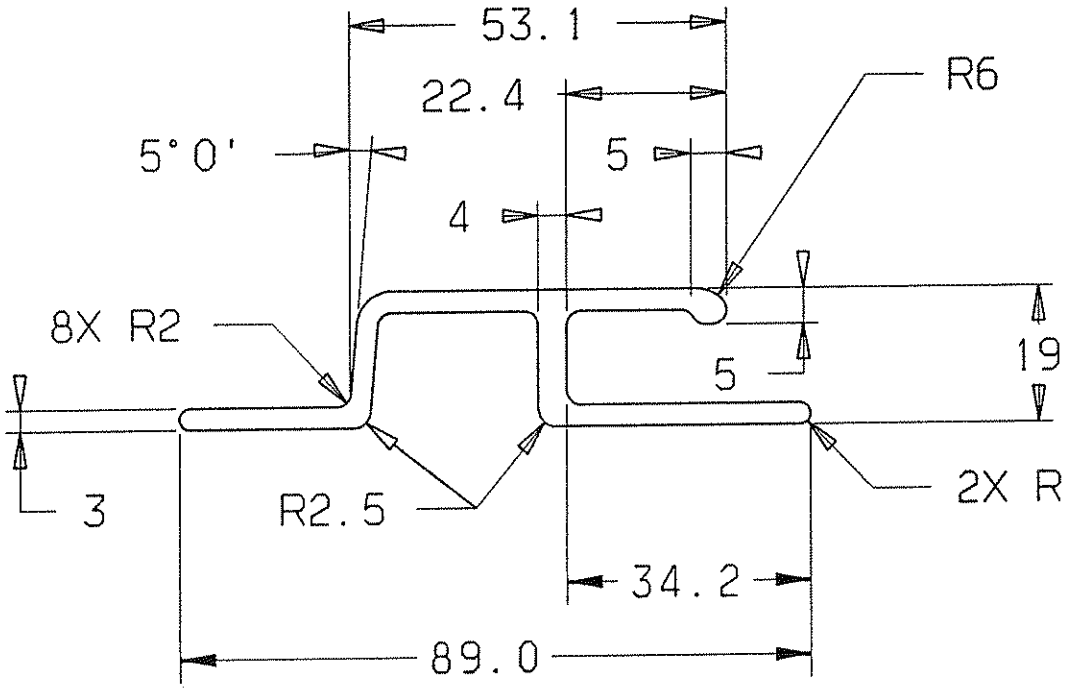
1. MATERIAL (BASE): PLIABLE RUBBERY BUTYL

2. PHYSICAL PROPERTIES:

SPECIFIC GRAVITY: (ASTM D792)	1.48
ELONGATION (%): (ASTM C908)	200
HARDNESS, SHORE 00: (AAMA 800)	60 TO 70
SOLID CONTENT (%):	100
SERVICE TEMPERATURE (°F):	-25 TO 180
YIELD STRENGTH (psi): (ASTM C908)	8

CHG	JOB NO	DATE	BY	REVISION
-	P2D220-D5	03/03/98	DAJ	INITIAL LOAD

DRAWN	T. TRUONG	TITLE EXTRUSION-ALUMINUM SUPPORT-SHELF, REAR	DRAWING NUMBER 48-25324
APPRV	DAJ		
DATE	03/09/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MM			



MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
6061-T6 OR 6063-T6 ALUMINUM EXTRUSION	440.91	2.69	48-25324-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P2D260-24	03/09/98	TTR	INITIAL RELEASE

DRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	TUBING-POLYPROPYLENE	48-25325	
DATE	03/10/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				

Scope: This specification identifies a chemical resistant, high temperature medium pressure polypropylene tubing.

A Application: For use with hot water and hot corrosive acids.

(NOM.) TUBE O.D.	(NOM.) TUBE I.D.	(AVG.) WALL THK.	MIN BURST PRESSURE (PSI)	MAX WORK PRESSURE (PSI)	MIN BEND RADIUS	FREIGHTLINER SPECIFICATION NUMBER
3/8	.250	.062	1200	300	1 1/4	48-25325-038

Engineering Notes:

1. Material: White polypropylene (water absorption less than .01%)
2. Temperature range: -18°C to +93°C (0°F to +200°F)
A 3. Approved Vendor: Parker Hannifin (PP-64-0500)

CHG	JOB NO	DATE	BY	REVISION
-	P04570-17	03/10/98	DAJ	INITIAL RELEASE
A	PA2042-83	03/18/98	DAJ	REVISED APPLICATION NOTE AND NOTE 3.

DRAWN	GJB	TITLE LEATHER, TOP GRAIN	DRAWING NUMBER 48-25326	
APPRV	KKK			
DATE	03/25/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A TOP GRAIN LEATHER SUITABLE FOR SEATING.

APPLICATION: FOR DRIVERS SEAT UPHOLSTERY.

SPECIFICATION NUMBERS:

COLOR	MAUFACTURERS PATTERN NAME	FREIGHTLINER PART NUMBER
SADDLE TAN	CHISHOLM	48-25326-100
RANGE RED	CHISHOLM	48-25326-200
HORIZON BLUE	CHISHOLM	48-25326-300
SAGEBRUSH SILVER	CHISHOLM	48-25326-400
FLINT BLACK	CHISHOLM	48-25326-500

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/25/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER
APPRV	KKK	LEATHER, TOP GRAIN	48-25326
DATE	03/25/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3 / CHG. LTR. -
CATIA ORIGINAL			

TEST	METHOD	REQUIREMENT	
TENSILE STRENGTH	BS3144	8.0N/mm² MIN IN ANY DIRECTION	
ELONGATION @ BREAK	BS3144	25-60%	
ELONGATION @ 100N LOAD	BS3144	12% MIN	
TEAR FORCE	BS3144	40N/mm MIN	
TABER ABRASION	JNS 30.04.05	1500 CYCLES CS10 1000g NO PENETRATION OF COATED SURFACE TO LEATHER	
ADHESION: ORIGINAL AFTER 24hr HUMIDITY	 JNS 30.03.11 JNS 30.16.08	 10% LOSS MAX 10% LOSS MAX	
HEAT AGING 7 DAYS @ 80 DEG C	JNS 30.32.10	MAX COLOR CHANGE GS 4/5	
FLEX CRACKING AFTER HEAT AGING 7 DAYS @ 80 DEG C	JNS 30.32.10 BS3424 PT14 PT 9 MID 11	100,000 CYCLES MIN NO CRACKING	
COLD CRACKING	JNS 30.39.07	-30 DEG C	
BLOCKING	JNS 30.06.01 METHODS A & B	NO LIFTING OF 100g WEIGHT	
RESISTANCE TO FADE	SAE J1885 225.6KJ/M²	GS 4	
RESISTANCE TO PERSPIRATION	BS 1006 E04	GS 4/5	
COLORFASTNESS TO RUBBING (A)WET (B)DRY (C)CLEANER JAG	 BS 3424 PT 14 MID16 BS 3424 PT 14 MID16 JNS 30.11.06	 GS 4/5 GS 4/5 GS 4/5	

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/25/98	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE LEATHER, TOP GRAIN	DRAWING NUMBER 48-25326
APPRV	KKK		
DATE	03/25/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3 / CHG. LTR. -
CATIA ORIGINAL			

TEST	METHOD	REQUIREMENT	
FOGGING 16hr.@ 85 DEGREES C	JNS30.30.01	30 MAX	
GREASE CONTENT	BS1309	5-15%	
ACIDITY	BS1309	3.5 MIN	
SOILING	JNS30.14.23	GS3 BEFORE CLEANING(MIN) GS 4/5 AFTER CLEANING (MIN)	
SOFTNESS	JNS30.70.12	2.7-4.7mm	
WEIGHT PER UNIT AREA	BS3424:PT3 METHOD 5a	780g/m^2 ± 10%	
FLAMMABILITY	JNS30.45.05 FMVSS 302	100mm/MIN MAX	
THICKNESS		1.1-1.3 mm	

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/25/98	GJB	INITIAL RELEASE

ADRIENNE CHILBERG

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC-KNIT TRIM QUALITY	48-25327	
DATE	03/18/97	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A KNIT FABRIC.

APPLICATION: TRIM QUALITY - FOR LOWER STRENGTH APPLICATIONS SUCH AS HEADLINERS, WALL PANELS AND CURTAINS.

SPECIFICATION NUMBERS:

TRIM QUALITY-CHAPARRAL, WHITE ACRYLIC BACK COATING

COLOR	MANUFACTURER'S PATTERN NUMBER		COLOR NUMBER	FREIGHTLINER PART NUMBER
SADDLE TAN				48-25327-100
RANGE RED				48-25327-200
HORIZON BLUE				48-25327-300
SAGEBRUSH SILVER				48-25327-400
FLINT BLACK				48-25327-500

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE
A	P03568-65	06/08/98	SRL	SEE SHEETS 3 & 4

DRIENNE CHILBERG

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC-KNIT TRIM QUALITY	48-25327	
DATE	03/18/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. A

ENGINEERING REQUIREMENTS

1.0 GENERAL REQUIREMENTS

DESCRIPTION

THIS SPECIFICATION QUALIFIES KNIT TYPE FABRICS THAT ARE SUITABLE FOR USE AS TRUCK CAB UPHOLSTERY AND/OR INTERIOR TRIM. IT ALSO DESCRIBES THE GENERAL REQUIREMENTS FOR FABRIC PROPERTIES, IDENTIFICATION AND QUALITY.

DYE METHOD

UNLESS OTHERWISE SPECIFIED, FABRIC WILL BE PIECE DYED.

ALIGNMENT: (BOW AND BIAS)

THE DEGREE OF BOW AND BIAS IN THE FILLING DIRECTION SHALL NOT EXCEED 1/2 INCH FROM SELVAGE TO CENTER, ABOVE OR BELOW THE HORIZONTAL LINE, OR A TOTAL OF ONE INCH FROM SELVAGE TO SELVAGE ABOVE OR BELOW THE HORIZONTAL COMBINED. THIS REQM'T DOES NOT APPLY TO UNBACKED MATERIAL.

SEAM STRENGTH: FORD BN 119-01

THE JOINING SEAM SHALL RESIST SLIPPAGE OF ANY YARN OR THREAD. THERE SHALL BE NO FRACTURES AT THE SEW LINE IN ANY MATERIAL. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED MATERIAL.

SEAM: JASO M-403 6-7

ABRASION: ASTM D3884

AFTER 500 CYCLES UNDER 250 GRAM LOAD USING CS-17 ABRASION WHEELS THER SHALL BE NO APPRECIABLE COLOR CHANGE OF THE ABRAIDED SURFACE AND NO VISIBLE YARN RUPTURES

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE
A	P03568-65	06/08/98	SRL	SEE SHEETS 3 & 4

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC-KNIT TRIM QUALITY	48-25327	
DATE	03/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. A
CATIA ORIGINAL				

GENERAL REQUIREMENTS (CONT'D)

COLORFASTNESS (CROCKING): AATCC TEST METHOD 8

A CROCKING TEST PERFORMED WET AND DRY SHALL SHOW NO APPRECIABLE STAINING OF THE CONTACT FABRIC AND HAVE A MINIMUM AATCC RATING OF FOUR (4) DRY AND THREE (3) WET WHEN COMPARED TO THE AATCC COLOR TRANSFERENCE EVALUATION CHART.

COLORFASTNESS (FADE) AATCC TEST METHOD 16A

THERE SHALL BE NO OFF TONE COLOR ALTERATION AFTER EXPOSURE TO 100 HOUR CARBON ARC FADEOMETER TEST.

BLEEDING AND PERSPIRATION: AATCC TEST METHOD 15

THE CONTACT FABRIC SHALL REMAIN VIRTUALLY UNSTAINED AND TEST SAMPLE SHALL SHOW NO APPARENT CHANGE IN COLOR.

TENSILE STRENGTH (WET AND DRY): ASTM D5034

MINIMUM REQUIREMENTS TO BE DETERMINED BY FABRIC SELECTED.

FLAMMABILITY REQUIREMENT: FMVSS-302

MATERIAL SUPPLIED TO THIS SPECIFICATION SHALL CONFORM TO AND BE CERTIFIED BY THE FABRIC SUPPLIER TO MEET THE REQUIREMENTS OF THE FEDERAL MOTOR VEHICLE SAFETY STANDARD#302..... FLAMMABILITY OF INTERIOR MATERIALS.

IDENTIFICATION

ALL ROLLS TO BE IDENTIFIED WITH DYE LOT, THAT CAN BE TRACED TO MFG DATE.

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE
A	P03568-65	06/08/98	SRL	IDENTIFICATION UPDATED

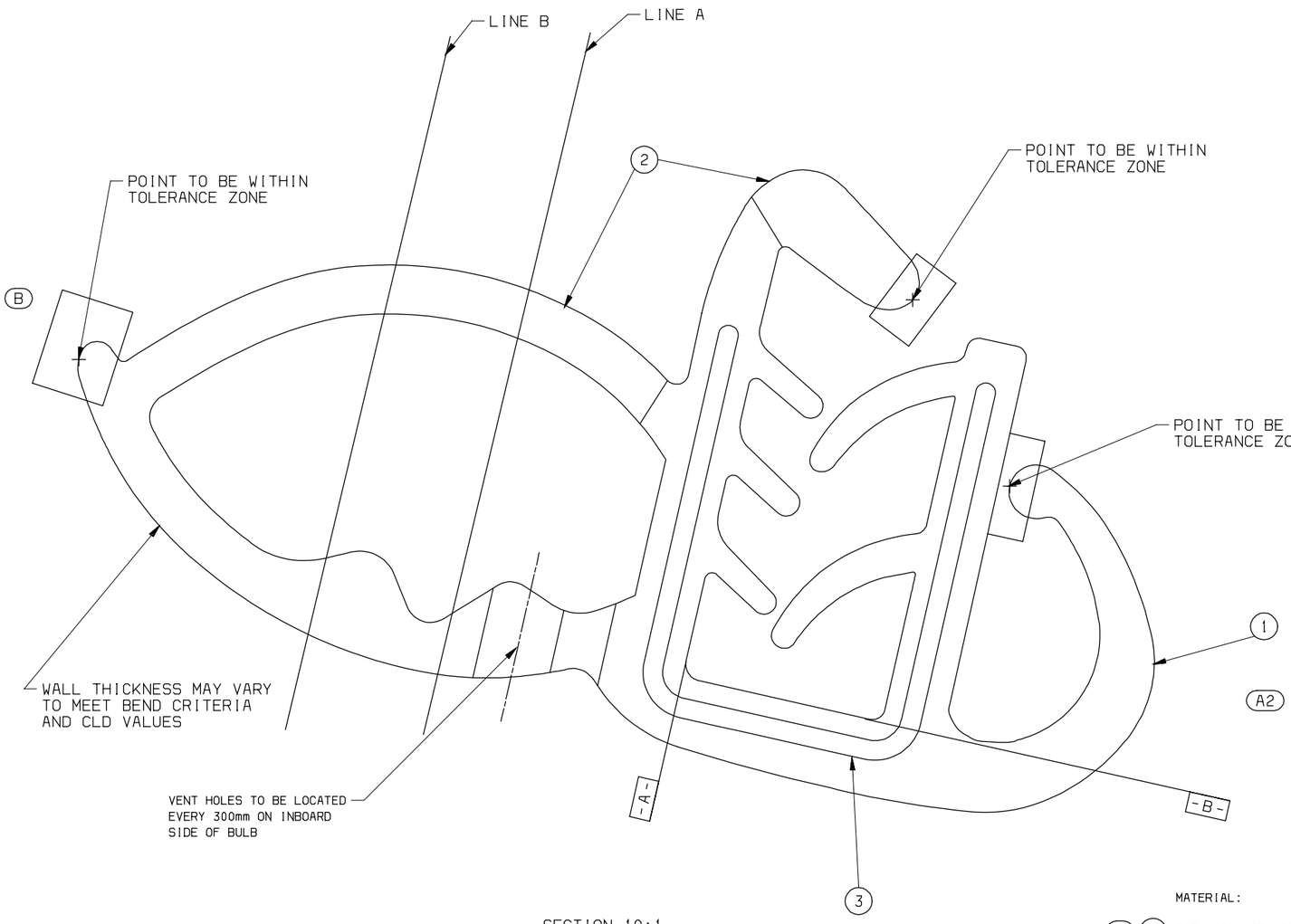
DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KKK	FABRIC-KNIT TRIM QUALITY	48-25327	
DATE	03/18/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4	CHG. LTR. A

2.0 SPECIFIC REQUIREMENTS:

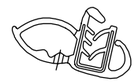
REQUIREMENT	SPECIFICATION		TEST METHOD
PILE YARN	100% SPUN NYLON 3 DENIER CUT X 4"AVG.STAPLE (VARI-CUT)		--------
WARP YARN BACKING	2/250 DEN. PREDYED TEXTURED POLYESTER		--------
FILLING YARN-BACKING	100% SPUN POLYESTER BLEND OF NAT./BLACK		--------
WARP: ENDS/INCH	60	2%	--------
FILLING:PICKS/INCH	28	2%	--------
PILE TUFTS/SQ INCH	420	2%	--------
FINISHED WT: OZS/LIN YD (WIDTH 54 IN)	22	5%	--------
BACK COATING TYPE: (FLEXWEAVE)	POLYURETHANE, 1 MIL THICK		--------
SEAM STRENGTH	RESIST SLIPPAGE OF ANY SINGLE THREAD-NO FRACTURES AT SEW LINE		ASTM D-1683
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE		ASTM D-3884
COLORFASTNESS (CROCK)	DRY (4) - WET (3)		AATCC TEST #15
COLORFASTNESS (FADE)	100 HOURS FDA-R NO OFF TONE FADE		AATCC TEST #16A
BLEED &PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR COLOR CHANGE		AATCC TEST #15
TENSILE STRENGTH(MIN)	DRY-310 N WET-310 N		ASTM D5034
TEAR STRENGTH (MIN)	WARP: 12 LBS. FILL: 12 LBS.		ASTM D5587
FLAMMABILITY RESISTANCE	MAX. BURN RATE 4" MIN.		FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	P03568-31	03/18/98	GJB	INITIAL RELEASE
A	P03568-65	06/08/98	SRL	TENSILE AND TEAR STRENGTH (MIN) UPDATED

RELEASE NUMBER	REV LTR	ZONE	REVISION DESCRIPTION	BY	DATE	APPD
P08518-01	-		INITIAL RELEASE	JPH	05/26/99	RBB
P08518-05	A	A4	MATERIAL SPEC WAS SAE J200	TAF	07/20/99	RBB
			M3BA 7I0 A14 BI3 CI2 FI7 ZI Z2			
			Z3 Z4 Z5 Z6.			
	A1	A4	Z4 WAS DUROMETER 73 ±5 ON			
			MOLDED SLAB			
			DUROMETER 70 ±5 ON EXTRUSION			
	A2	B2	ADDED NOTE.			
P04839-26	B	C8	REVISED TOLERANCE ZONE	TAF	08/17/99	RBB



SECTION 10:1



SECTION 1:1

A2 DELIVERY MUST CONFORM EXACTLY WITH DRAWING SPECIFICATIONS AND WHERE REQUIRED BY Q.A. WITH APPROVED Q.A. SAMPLES. ABSOLUTELY NO CHANGES ARE PERMITTED WITHOUT PRIOR APPROVAL BY FREIGHTLINER CORP. THIS INCLUDES CHANGES TO: SOFTWARE, MATERIALS, INTERNAL COMPONENTS, MANUFACTURING PROCESSES.

1. UNLESS OTHERWISE SPECIFIED: CROSS SECTION PER RMA CLASS 1 TOLERANCE.
2. NO WRINKLING/KINKING PERMITTED ON BULB. 55mm MINIMUM BEND RADIUS.
3. CLD VALUES FOR 150mm SAMPLE:
   LINE A: 55 N MAXIMUM
   LINE B: 18 N MINIMUM

MATERIAL:

(A)(1) SAE J200 M8BA 708 B13 C12 Z1 Z2 Z3 Z4 Z5
Z1= 100% EPDM
Z2= MIGRATION STAIN PER ASTM D-925 METHOD B
Z3= OZONE RESISTANCE PER (ASTM D-1149)
(A1) Z4= LOW TEMP BRITTLENESS PER ASTM D-2137 (<-40°C)
Z5= FMVSS#302 FLAMMABILITY

MUST MEET FLAMMABILITY REQUIREMENT PER FMVSS 302

(2) SAEJ18 2A2 CLASS A B2 Z1 Z2
(REF. ASTM D-1056)
Z1= 100% EPDM
Z2= OZONE RESISTANCE PER ASTM D-1149

(3) STRECHED LANCED CARRIER
SAE J 403 1008-1010

ITEM NUMBER 48-25329-000
DESCRIPTION EXTRUSION-RUBBER, EPDM

FREIGHTLINER LLC

THE INFORMATION CONTAINED HEREIN IS PROPRIETARY DATA, AND IS NOT FOR DISSEMINATION OR DISCLOSURE, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SUBMITTED, EXCEPT AS AUTHORIZED IN WRITING BY FREIGHTLINER LLC.

MATERIAL APPROVAL	DATE
DRAWN BY J. HYDE	DATE 05/26/99
CHECKED BY J. BEESON	DATE 05/26/99
RESPONSIBLE ENGINEER R. BLY	DATE 05/26/99
APPROVED BY W. MILLER	DATE 05/26/99

UNLESS OTHERWISE NOTED, DIMENSIONS AND TOLERANCES ARE DEFINED ACCORDING TO ANSI STANDARD Y14.5M-1982, WITH EXCEPTIONS PER FREIGHTLINER EOM SECT 307.

THIRD ANGLE PROJECTION | UNITS OF MEASURE: MM

MFG. ENGR/PURCH AGENT M. KING DATE

DESCRIPTION: EXTRUSION-RUBBER, EPDM

SUPPLEMENTARY DESCRIPTION: STERLING

ITEM/DRAWING NUMBER	REVISION LETTER	SHEET NUMBER
48-25329	B	1 OF 1

DO NOT SCALE COPIES OF THIS DRAWING

FPL865

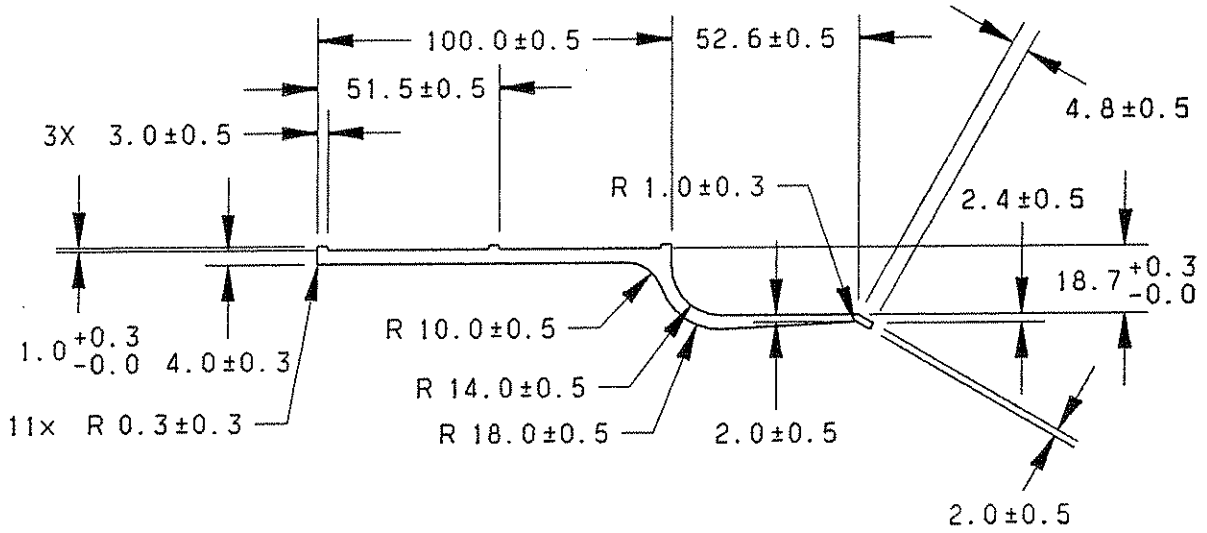
.EXTRUSION-RUBBER, EPDM . B .

DRAW ID- 48-25329 SHEET FILE- BSIZ.SHEET USER ID- CATIA

PLOT TIME- 16:39 LAST FILE- 01/01/03 16:39

PLOT DATE- JANUARY 3, 2001

DRAWN	BNT	TITLE EXTRUSION-ALUM CLIP FAIRING	DRAWING NUMBER 48-25330
APPRV	BRG		
DATE	04/07/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	1.00	0.10	48-25330-000

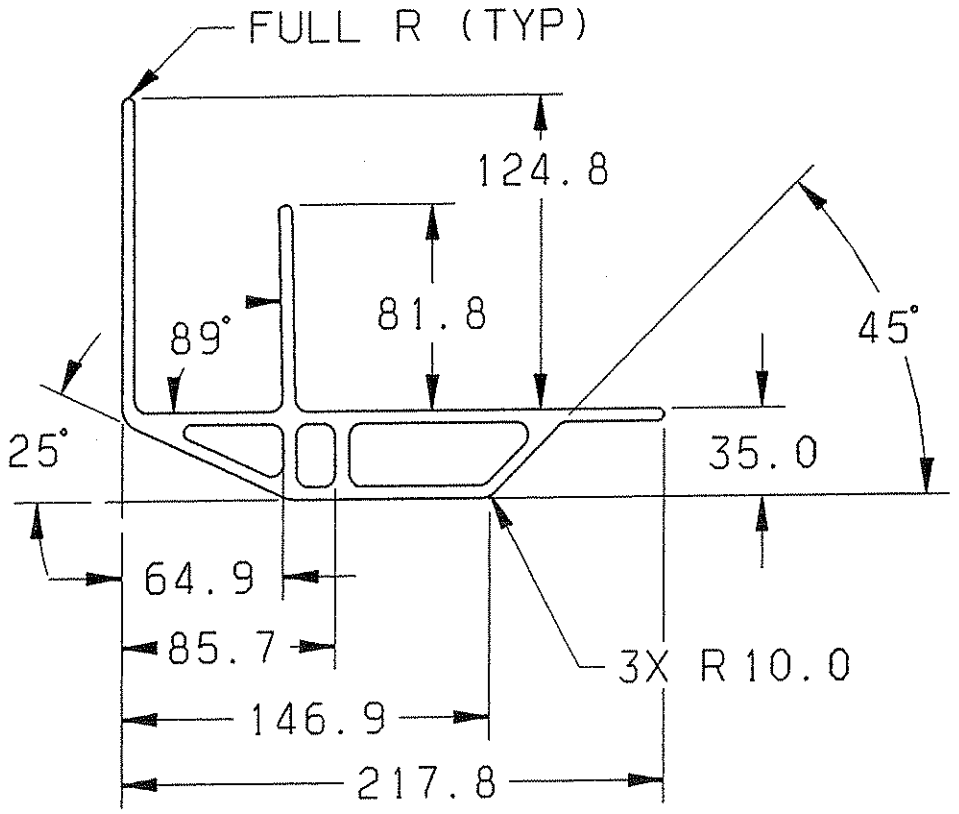
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.
4. ALLOWABLE TWIST AND/OR BEND 0.5° PER FOOT

CHG	JOB NO	DATE	BY	REVISION
-	P00074-22	04/07/98	PGV	INITIAL RELEASE

DRAWN	PJB	TITLE	DRAWING NUMBER
APPRV	CPJ	EXTRUSION-ALUMINUM BRKT-TREAD SUPPORT-FLH	48-25331
DATE	04/17/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			

NOTE: UNLESS OTHERWISE SPECIFIED ALL RADII TO BE 5.0 MM



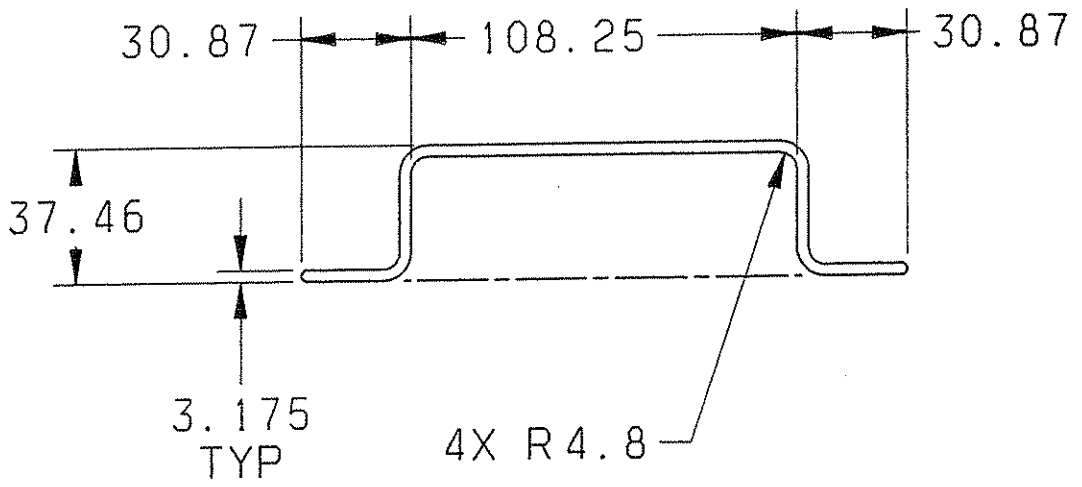
MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6 OR 6063-T6	5.28	0.52	48-25331-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. ALL WALLS ARE 5 MM THICK UNLESS OTHERWISE SPECIFIED
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P2D251-43	04/16/98	PJB	INITIAL RELEASE

DRAWN	PT	TITLE	DRAWING NUMBER
APPRV	CHB	EXTRUSION-HAT ALUMINUM	48-25332
DATE	04/24/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	1.1204	.1098	48-25331-000

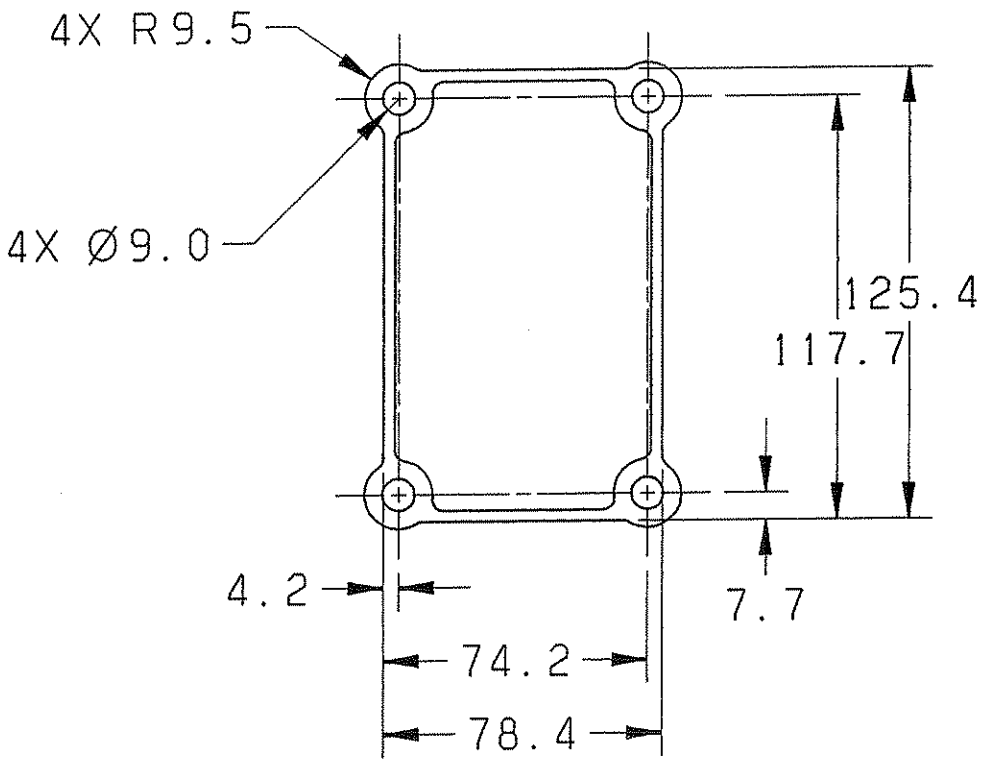
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P2D210-48	04/24/98	PT	INITIAL RELEASE

DRAWN	JHL	TITLE EXTRUSION-ALUMINUM SPACER-ACTUATOR MOUNT, STEP	DRAWING NUMBER 48-25333	
APPRV	CHB			
DATE	04/17/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

NOTE: UNLESS OTHERWISE SPECIFIED ALL RADII TO BE 0.3mm



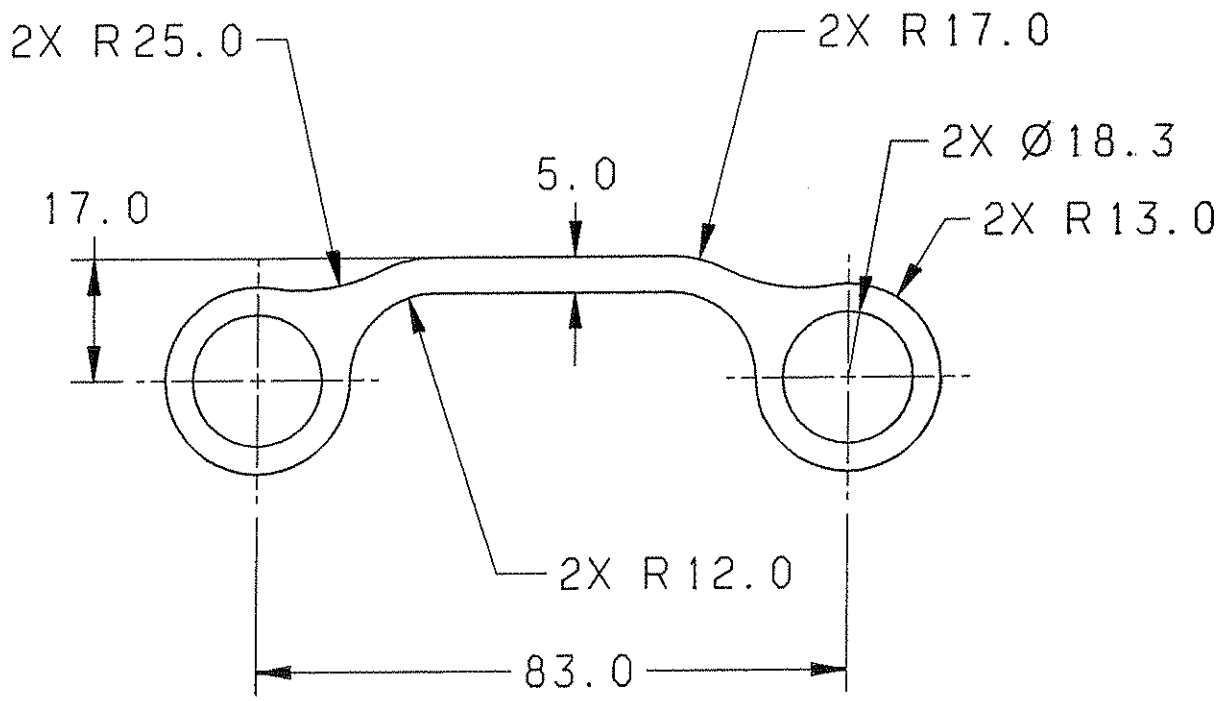
MATERIAL	AREA SQ. mm.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	1842.51	.278	48-25333-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. ALL WALLS ARE 3.2 MM THICK UNLESS OTHERWISE SPECIFIED
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P2D253-24	05/04/98	CHB	INITIAL RELEASE

DRAWN	JHL	TITLE EXTRUSION-ALUMINUM REINF-MOUNTING, FRT, DEPL, STEPS	DRAWING NUMBER 48-25334
APPRV	CHB		
DATE	05/05/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



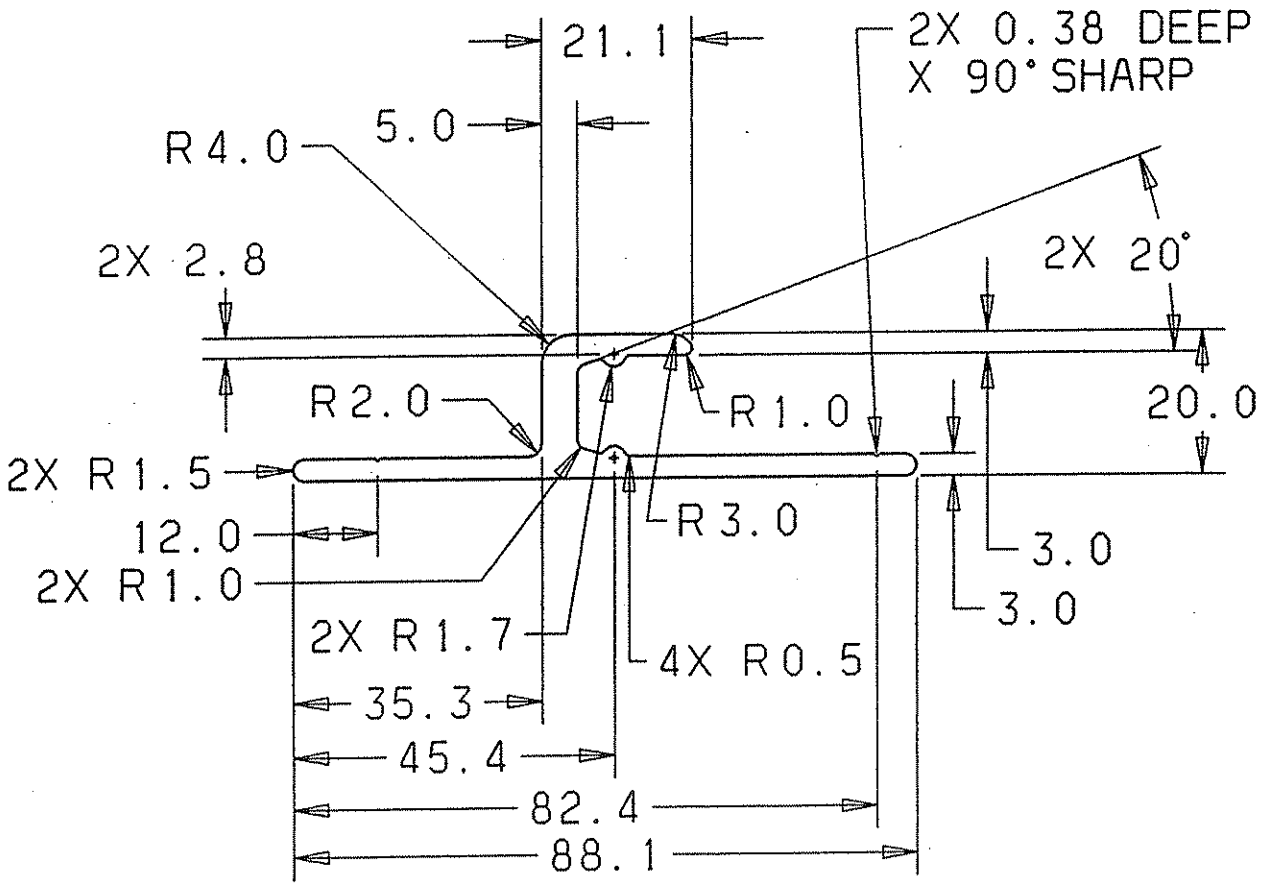
MATERIAL	AREA SQ. mm.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	918.78	.140	48-25334-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. ALL WALLS ARE 3.5 MM THICK UNLESS OTHERWISE SPECIFIED
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P2D253-24	05/04/98	CHB	INITIAL RELEASE

DRAWN	JGA	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION-ALUMINUM BACKPACK, DOORS, LWR	48-25335
DATE	06/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



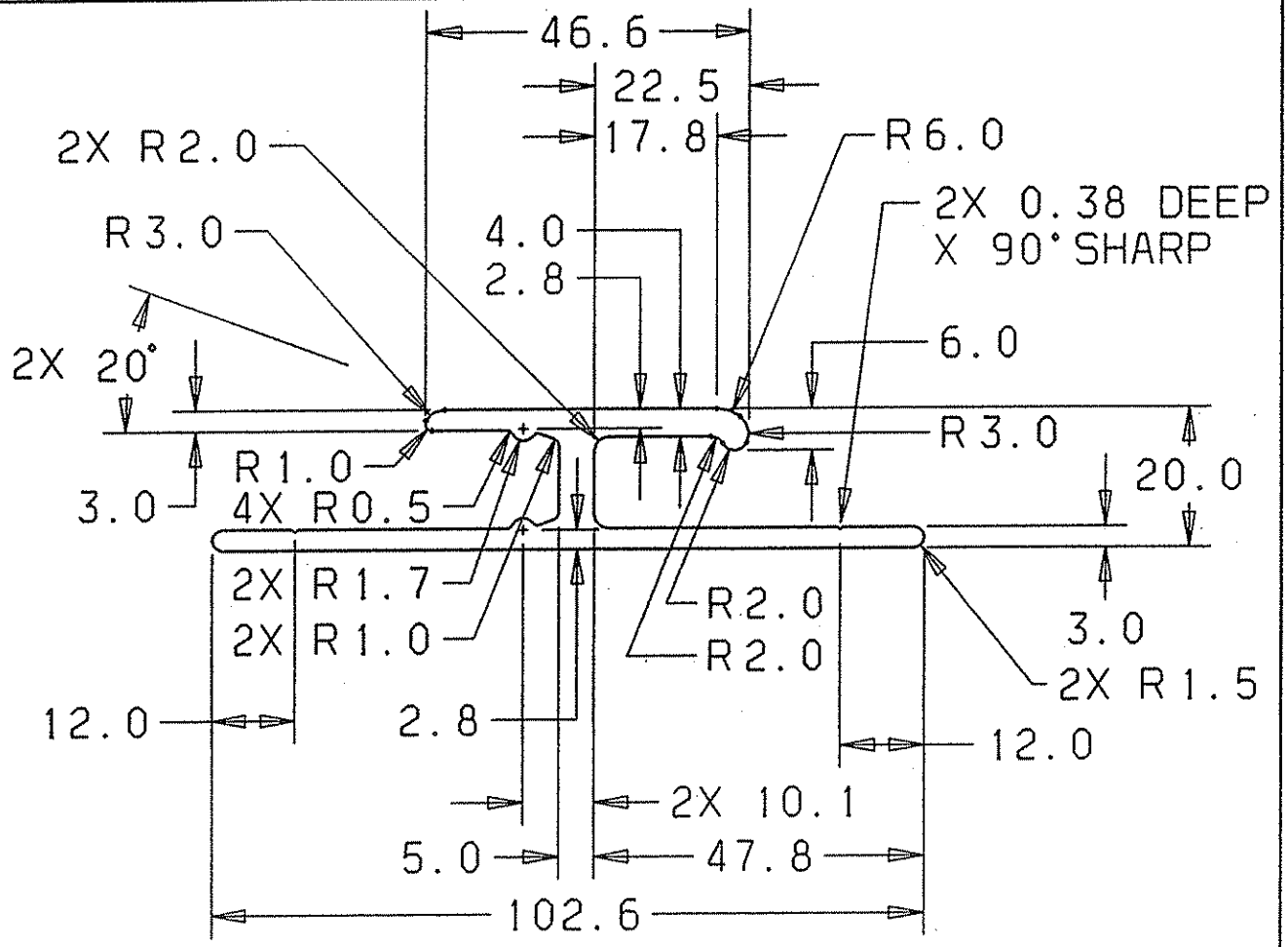
MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
6061-T6 OR 6063-T6	405.2	2.47	48-25335-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P04063-11	06/18/98	JGA	INITIAL RELEASE

DRAWN	JGA	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION-ALUMINUM BACKPACK, DOORS, UPR	48-25336
DATE	06/18/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
6061-T6 OR 6063-T6	555.1	3.38	48-25336-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P04063-11	06/18/98	JGA	INITIAL RELEASE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FOAM-SILICONE RUBBER, PSA	48-25337	
DATE	06/05/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES A CELLULAR SILICONE FOAM WITH A HIGH PERFORMANCE ACRYLIC PSA ADHESIVE ON ONE SIDE, RESISTANT TO HEAT, HUMIDITY, UV LIGHT PLASTICIZERS AND SOME SOLVENTS.

APPLICATION: FOR HIGH AND LOW TEMPERATURE GASKETING, SEALING, WHERE MEDIUM COMPRESSION DEFLECTION IS REQUIRED.

THICKNESS	COLOR	VENDOR/PART NO.	FREIGHTLINER SPEC NUMBER
3/16	BLACK	BOYD: PORON HT-800	48-25337-000

SPECIFICATIONS:

1. MATERIAL (FOAM): SILICONE RUBBER
   (ADHESIVE): ACRYLIC/SILICONE

2. PHYSICAL PROPERTIES:

DENSITY: (ASTM D3574)	16-28 pcf
COMPRESSION FORCE @ 25% DEFLECTION: (ASTM D1056)	6-14 psi
WATER ABSORPTION (MAX): (ASTM D1056)	5%
SERVICE TEMPERATURE (°F): (CONTINUOS)	-65 TO 250
SERVICE TEMPERATURE (°F): (INTERMITTENT)	-65 TO 350
PEEL ADHESION: 18 MINUTE APPLIED (OZ/IN)	40

CHG	JOB NO	DATE	BY	REVISION
-	P05219-01	06/05/98	DAJ	INITIAL LOAD

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	PAINT-TOPCOAT INTERIOR, SOFT TOUCH	48-25338	
DATE	06/12/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A SOFT TOUCH INTERIOR TOPCOAT PAINT.

APPLICATION: FOR USE ON BOTH METAL AND PLASTIC SUBSTRATES OF INTERIOR COMPONENTS.

COLOR	MANUFACTURER'S NUMBER	FREIGHTLINER SPECIFICATION NUMBER
SLATE GRAY	DUPONT: VELVASHIELD 848-P-25342 AKZO: DURASOFT 11BLU45612	48-25338-001
SHADOW GRAY	DUPONT: VELVASHIELD 848-P-25341 AKZO: DURASOFT 11BLU45613	48-25338-002

ENGINEERING NOTES:

1. REFERENCE: 49-00091 FOR COLOR SPECIFICATIONS
   49-00103 FOR PERFORMANCE SPECIFICATIONS
   49-00086 FOR SURFACE QUALITY REQUIREMENTS

CHG	JOB NO	DATE	BY	REVISION
-	P00497-14	06/12/98	DAJ	INITIAL LOAD

ADRIENNE CHILBERG

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	CLEANER-SOLVENT	48-25339	
DATE	05/22/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES A MICROENCAPSULATED WATER-BASED CLEANING SOLUTION.

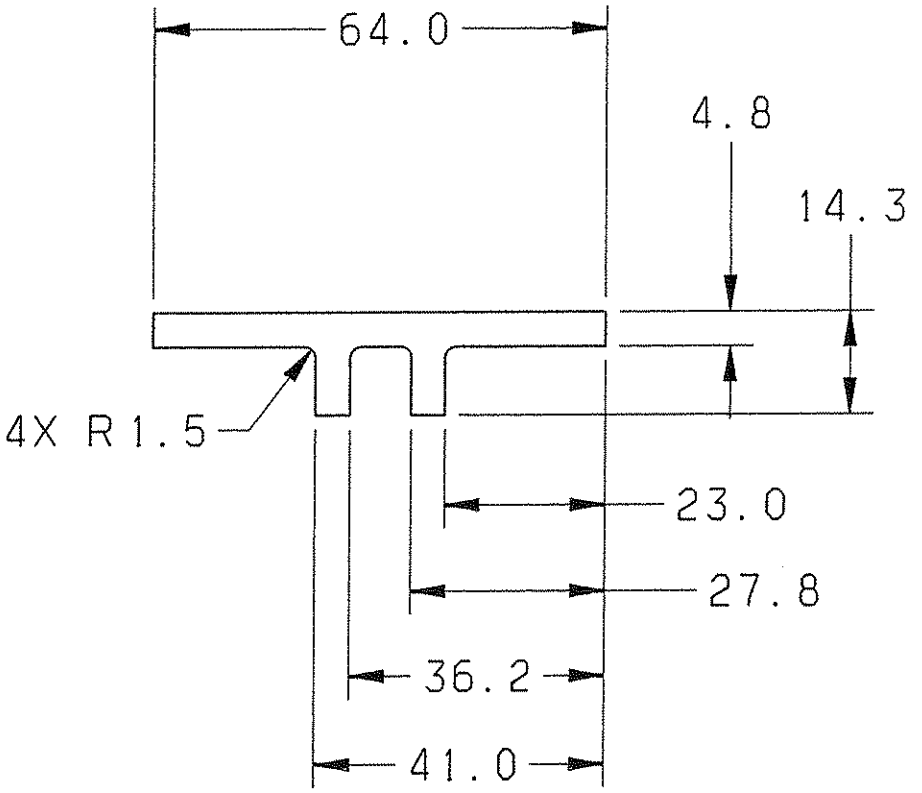
APPLICATION: FOR CLEANING HEAVY GRIMY OR OILY METAL SURFACES PRIOR TO APPLYING ADHESIVE.

MANUFACTURER'S NUMBER	FREIGHTLINER SPECIFICATION NUMBER
3M	
3M PREP SOLVENT-70 CLEANER	48-25339-000

CHG	JOB NO	DATE	BY	REVISION
-	P05010-01	05/22/98	DAJ	INITIAL LOAD

ADRIENNE CHILBERG

DRAWN	LWA	TITLE EXTRUSION-NEOPRENE LINER-BBOX, OVR RAIL, C2	DRAWING NUMBER 48-25340
APPRV	BRG		
DATE	06/01/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
SAE J200, M1BC 408	0.616	0.027	48-25340-000

SPECIFICATIONS:

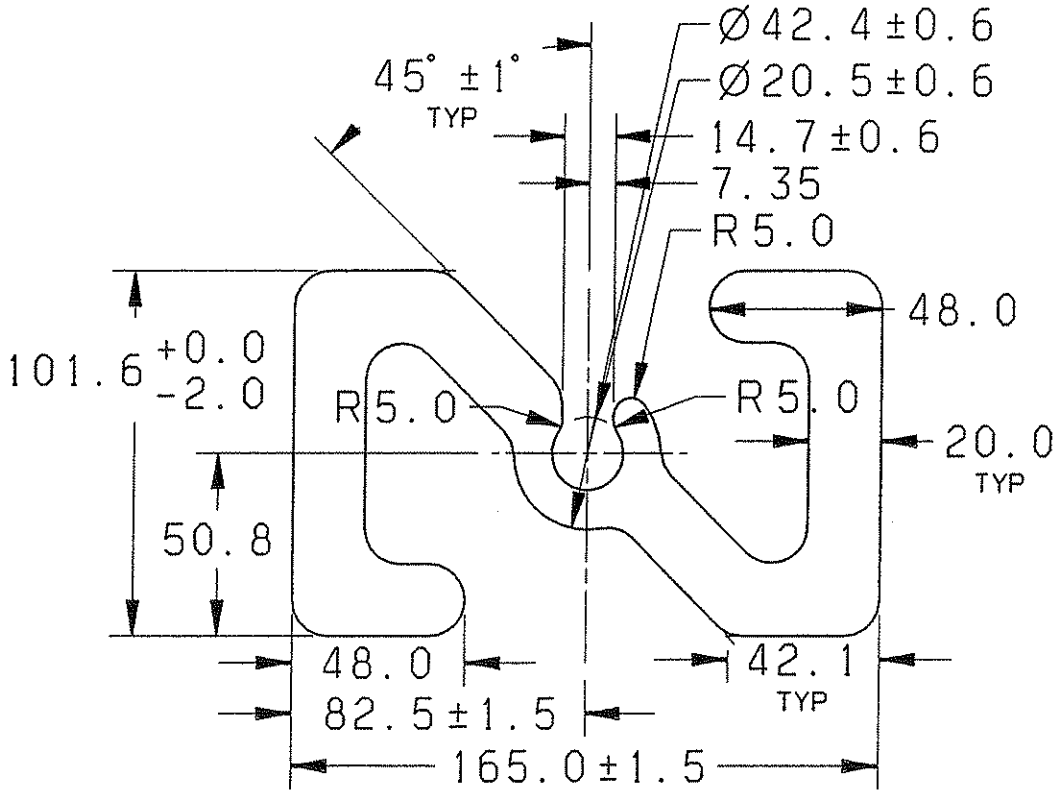
1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES PER RUBBER MANUFACTURERS ASSOCIATION STANDARD RMA CLASS 2.

CHG	JOB NO	DATE	BY	REVISION
-	P00099-13	06/01/98	LWA	INITIAL RELEASE

DRIENNE CHILBERG

DRAWN	JRC	TITLE	DRAWING NUMBER	
APPRV	JVM	EXTRUSION-ALUMINUM SPACER, SUSPENSION	48-25342	
DATE	06/10/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES AN ALUMINUM EXTRUSION
APPLICATION: SPACER, FRONT AXLE SUSPENSION
SKETCH:



MATERIAL	AREA SQ. IN.	WEIGHT LB/FT	F/L SPEC NO.
6063-T5	12.10	14.08	48-25342-000

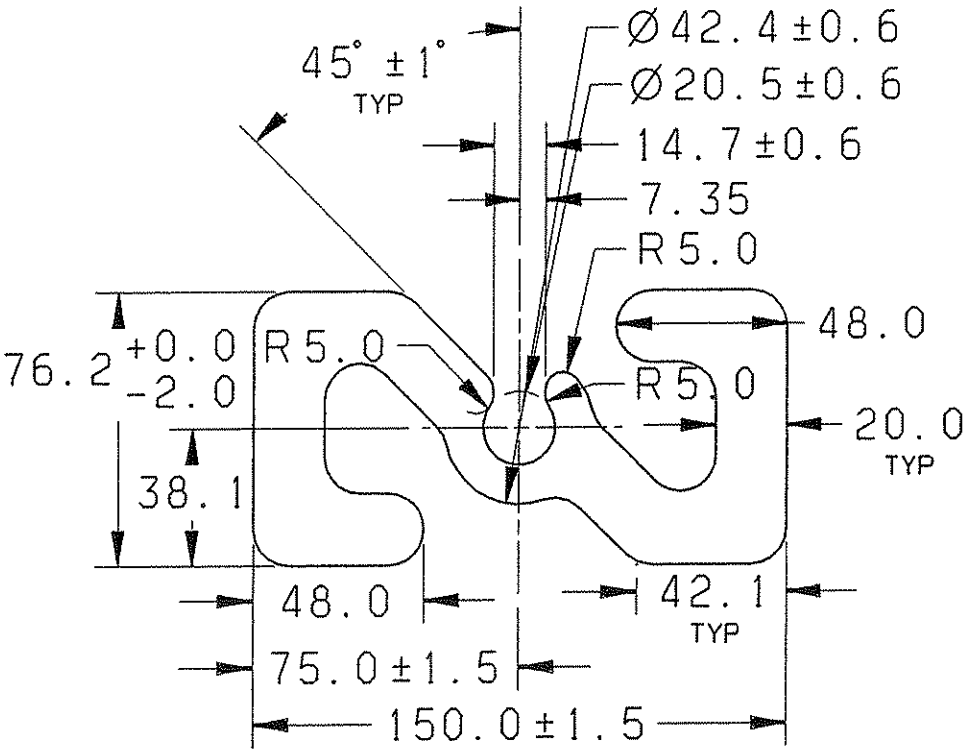
SPECIFICATIONS:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL RADII 10MM UNLESS OTHERWISE NOTED.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS.

CHG	JOB NO	DATE	BY	REVISION
-	P05658-01	06/10/98	JRC	INITIAL RELEASE

DRAWN	JRC	TITLE	DRAWING NUMBER	
APPRV	JVM	EXTRUSION-ALUMINUM SPACER, SUSPENSION	48-25343	
DATE	06/10/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES AN ALUMINUM EXTRUSION
APPLICATION: SPACER, FRONT AXLE SUSPENSION
SKETCH:



MATERIAL	AREA SQ. IN.	WEIGHT LB/FT	F/L SPEC NO.
6063-T5	10.47	12.19	48-25343-000

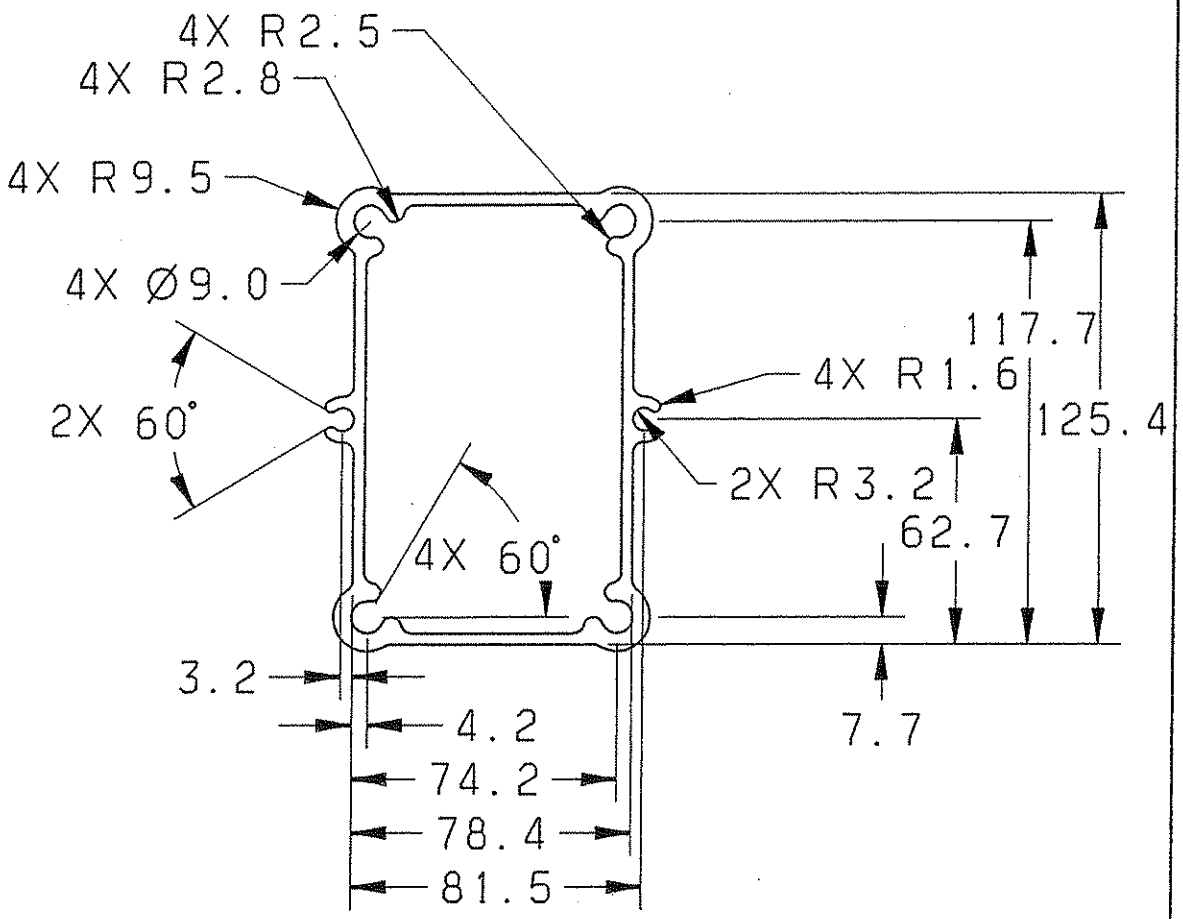
SPECIFICATIONS:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL RADII 10MM UNLESS OTHERWISE NOTED.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS.

CHG	JOB NO	DATE	BY	REVISION
-	P05658-01	06/10/98	JRC	INITIAL RELEASE

DRAWN	RWL	TITLE EXTRUSION-ALUMINUM SPACER-ACTUATOR MOUNT, STEP	DRAWING NUMBER 48-25344
APPRV	CHB		
DATE	06/12/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			

NOTE: UNLESS OTHERWISE SPECIFIED ALL RADII TO BE 3.0mm



MATERIAL	AREA SQ. mm.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	1790.35	.270	48-25344-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. ALL WALLS ARE 3.2 MM THICK UNLESS OTHERWISE SPECIFIED
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P2D253-39	06/12/98	CHB	INITIAL RELEASE

DRAWN	AMN	TITLE	DRAWING NUMBER
APPRV	DAJ	OIL ATF, SYNTHETIC	48-25345
DATE	06/25/98		
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES A SYNTHETIC AUTOMATIC TRANSMISSION FLUID FORMULATED TO PROVIDE MAXIMUM PERFORMANCE IN COMMERCIAL AUTOMATIC TRANSMISSIONS WHERE A SYNTHETIC ATF IS PREFERRED OVER A PETROLEUM ATF PRODUCT.

APPLICATION: USE FOR YEAR ROUND LUBRICATION OF AUTOMOTIVE AUTOMATIC TRANSMISSIONS IN LIGHT-DUTY TO EXTREMELY HEAVY-DUTY ON-HIGHWAY VEHICLES AND OFF-HIGHWAY EQUIPMENT.

MANUFACTURER'S P/N	FREIGHTLINER SPECIFICATION NUMBER
MOBIL MOBIL 1 SYNTHETIC ATF #52020-5	48-25345-000

ENGINEERING NOTES:

1. PHYSICAL PROPERTIES:

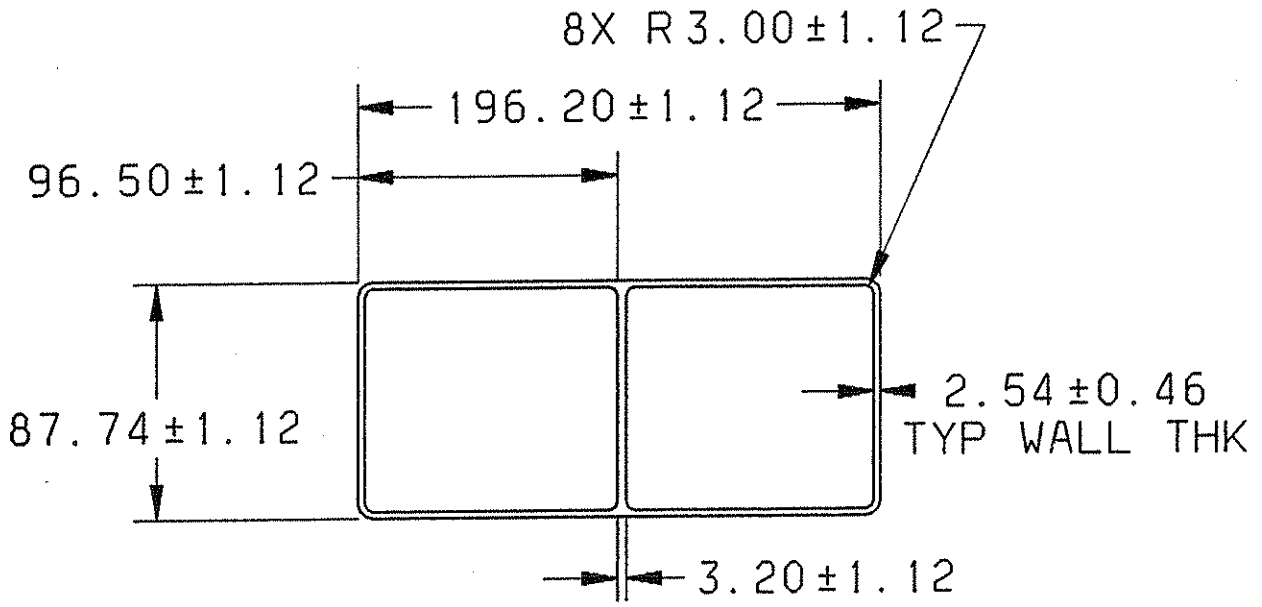
SPECIFIC GRAVITY	0.838
FLASH POINT ASTM D 92 °C (°F)	220 (428)
VISCOSITY INDEX	198
VISCOSITY	
cP AT 40°C (-40°F)*	6200
cP AT -20°C (-4°F)*	850
cP AT -10°C (-14°F)*	400
cSt AT 40°C (104°F)	35
cSt AT 100°C (212°F)	7.6
POUR POINT °C (°F)	-54 (-65)
COLOR	RED

2. GM DEXRON III, MERCON, AND ALLISON C-4 APPROVED

* BROOKFIELD

CHG	JOB NO	DATE	BY	REVISION
-	P05823-01	06/25/98	AMN	INITIAL LOAD

DRAWN	EMH	TITLE	DRAWING NUMBER	
APPRV	TAG	EXTRUSION-ALUM REINF-LADDER STEPS	48-25346	
DATE	07/22/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



DIMENSIONS ARE IN MM

MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6063-T6	1518.2MM	.12688	48-25346-000

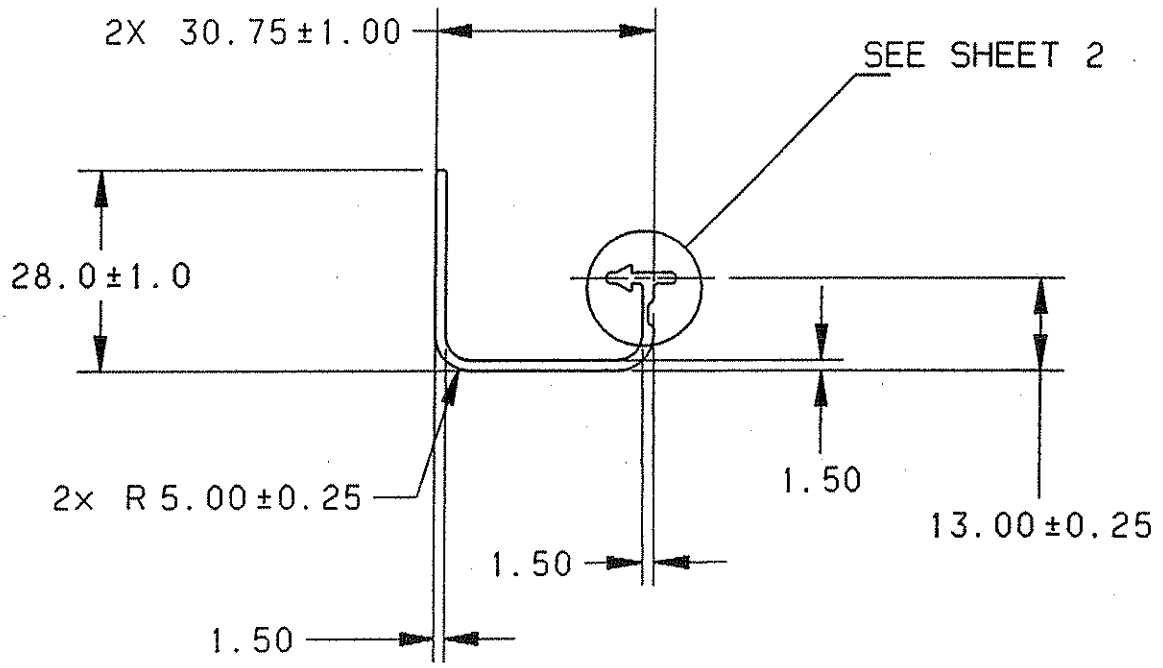
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P2D251-73	07/22/98	TAG	INITIAL RELEASE

DRAWN	PMS	TITLE	DRAWING NUMBER	
APPRV	JMW	EXTRUSION. FLAP. SHELF COVER P2 CLASS	48-25347	
DATE	07/08/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. -

NOTE: UNLESS OTHERWISE SPECIFIED ALL RADII TO BE 0.5mm.



DIMENSIONS IN mm

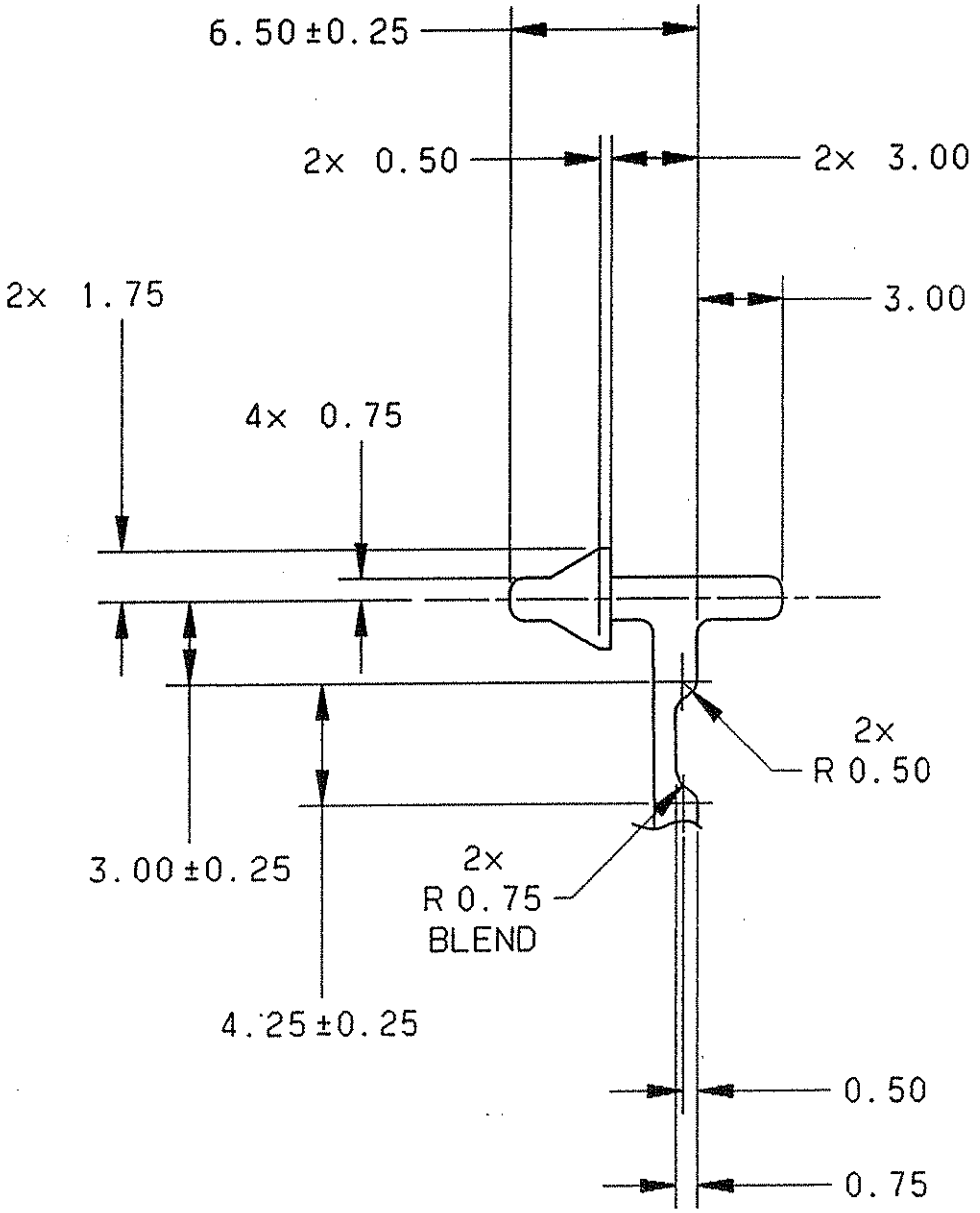
MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
PVC 7181	144.0	0.44	48-25347-000

SPECIFICATIONS:

1. FINISH: NONE.
2. FOG TEST: MINIMUM VALUE OF 60 ON 1 AND 16 H VALUES FOR SAE J1756.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. UNLESS OTHERWISE NOTED, TOLERANCES FOR LINEAR DIMENSIONS ± 0.1. ANGULAR DIMENSIONS ± 2 DEGREES.

CHG	JOB NO	DATE	BY	REVISION
-	P00699-B2	07/08/98	PMS	INITIAL RELEASE

DRAWN	PMS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION. FLAP. SHELF COVER P2 CLASS	48-25347
DATE	07/08/98	FREIGHTLINER CORPORATION PORTLAND. OREGON	SHEET 2 OF 2 / CHG. LTR. -
CATIA ORIGINAL			

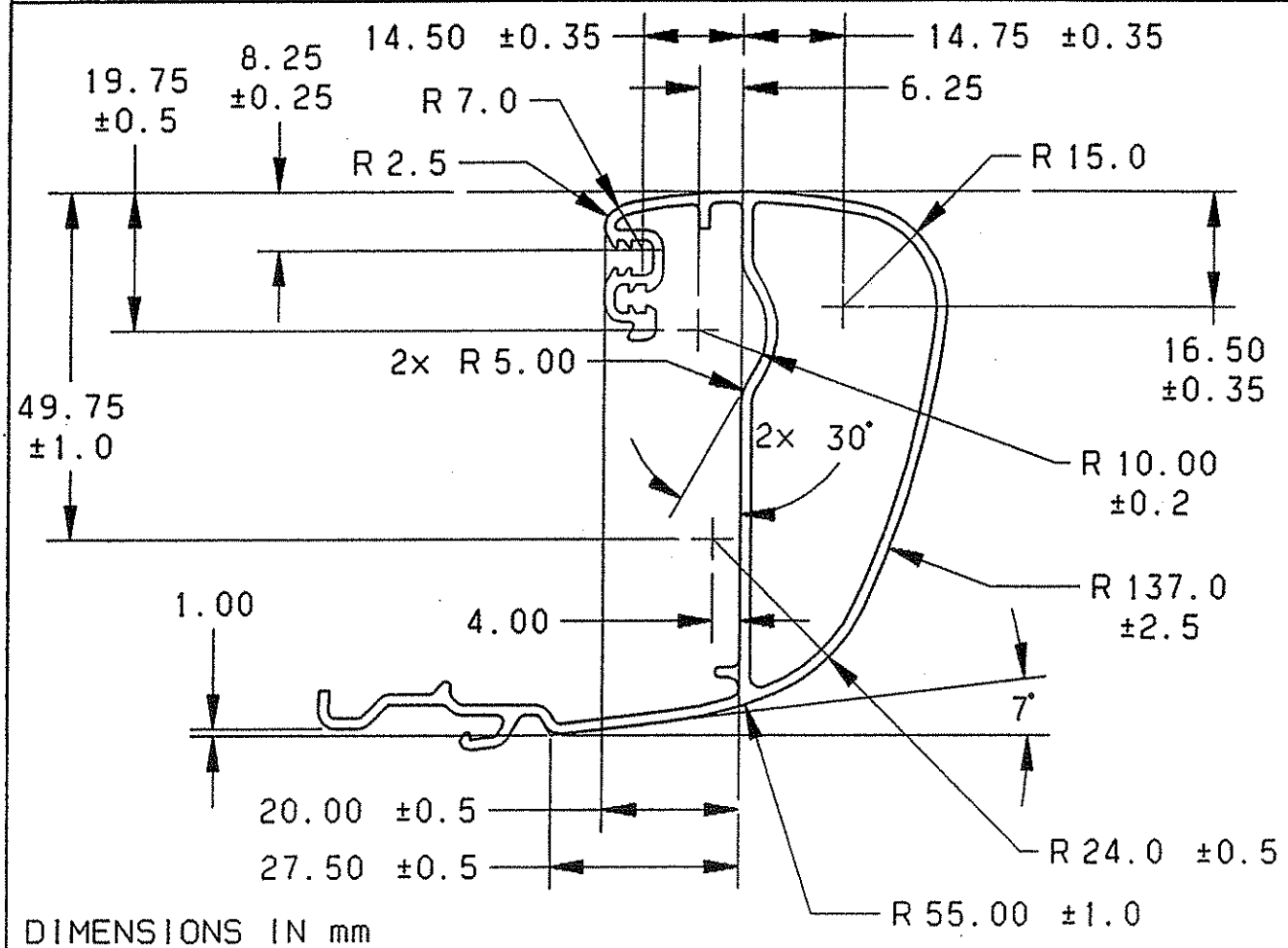


SCALE 4:1

DIMENSIONS IN mm

CHG	JOB NO	DATE	BY	REVISION
-	P00699-B2	07/08/98	PMS	INITIAL RELEASE

DRAWN	PMS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION. INNER. SHELF COVER P2 CLASS	48-25348
DATE	07/08/98	FREIGHTLINER CORPORATION PORTLAND. OREGON	SHEET 1 OF 4 / CHG. LTR. -
CATIA ORIGINAL			



DIMENSIONS IN mm

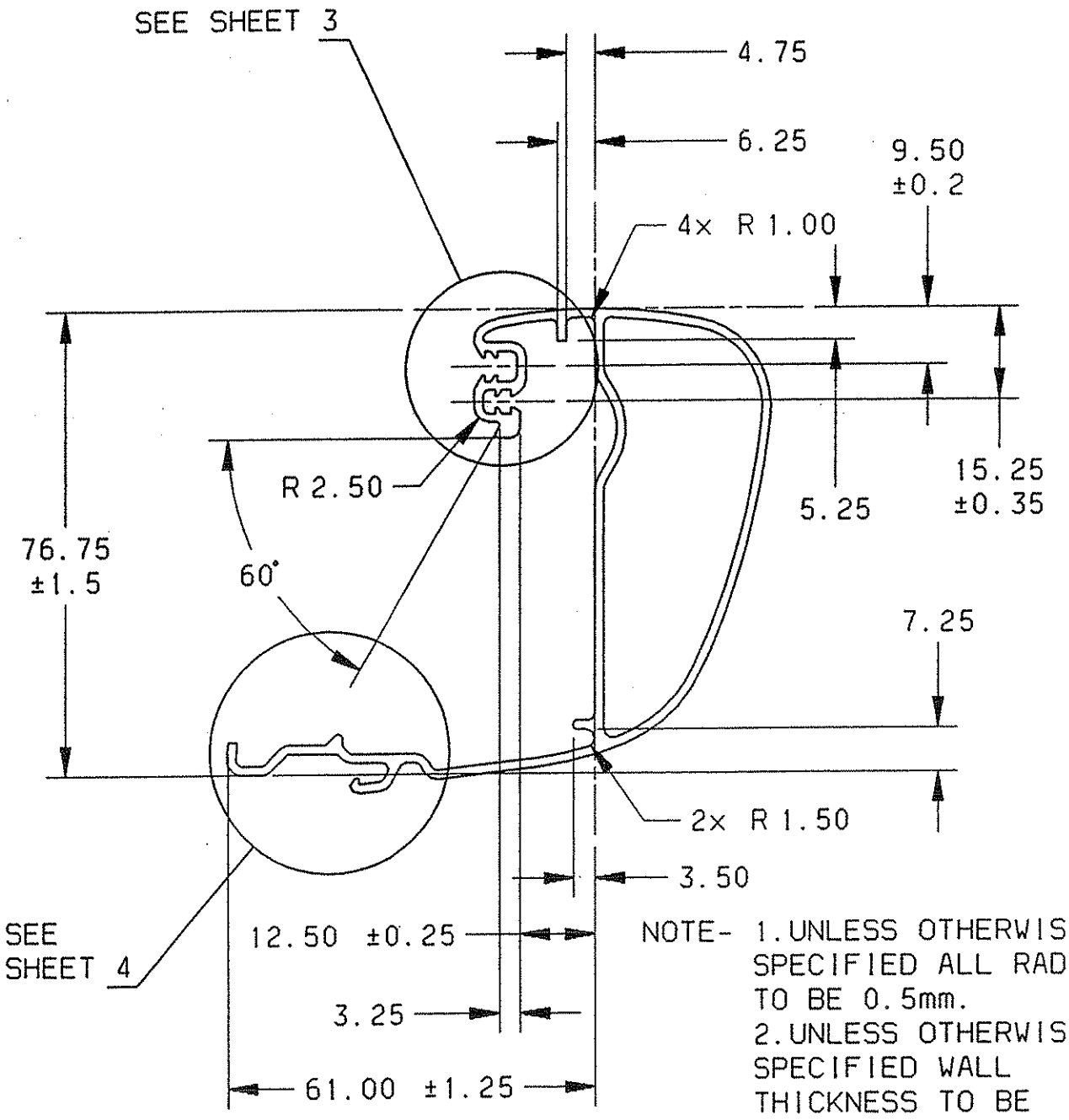
MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
PVC 7181	494.0	0.9	48-25348-000

SPECIFICATIONS:

1. FINISH: NONE.
2. FOG TEST: MINIMUM VALUE OF 60 ON 1 AND 16 H VALUES FOR SAE J1756.
3. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
4. UNLESS OTHERWISE NOTED, TOLERANCES FOR LINEAR DIMENSIONS ± 0.1. ANGULAR DIMENSIONS ± 2 DEGREES.

CHG	JOB NO	DATE	BY	REVISION
-	P00699-B2	07/08/98	PMS	INITIAL RELEASE

DRAWN	PMS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION. INNER. SHELF COVER P2 CLASS	48-25348
DATE	07/08/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

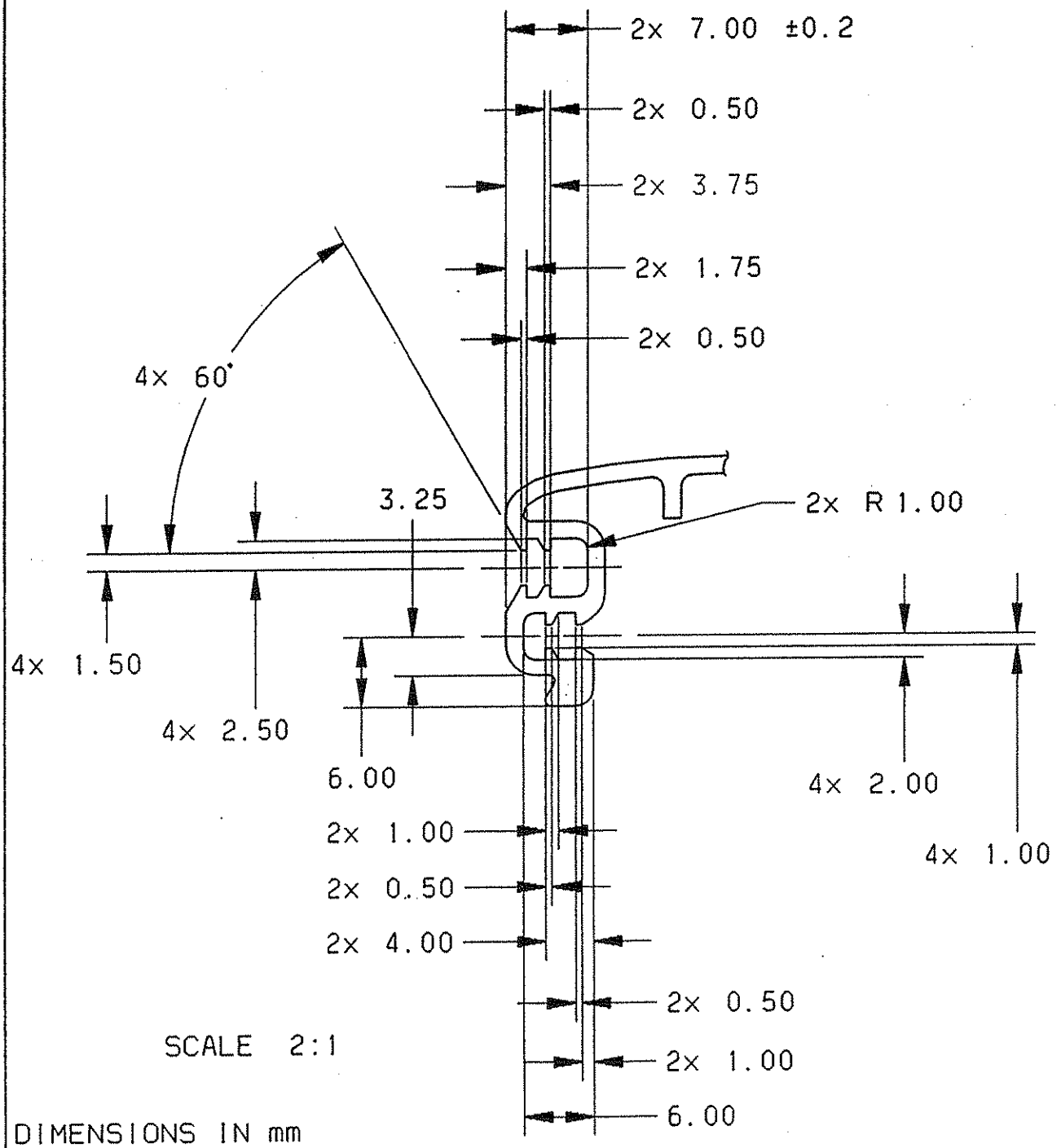


NOTE- 1. UNLESS OTHERWISE SPECIFIED ALL RADII TO BE 0.5mm.
2. UNLESS OTHERWISE SPECIFIED WALL THICKNESS TO BE 1.5mm.

DIMENSIONS IN mm

CHG	JOB NO	DATE	BY	REVISION
-	P00699-B2	07/08/98	PMS	INITIAL RELEASE

DRAWN	PMS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION. INNER. SHELF COVER P2 CLASS	48-25348
DATE	07/08/98	FREIGHTLINER CORPORATION PORTLAND. OREGON	SHEET 3 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

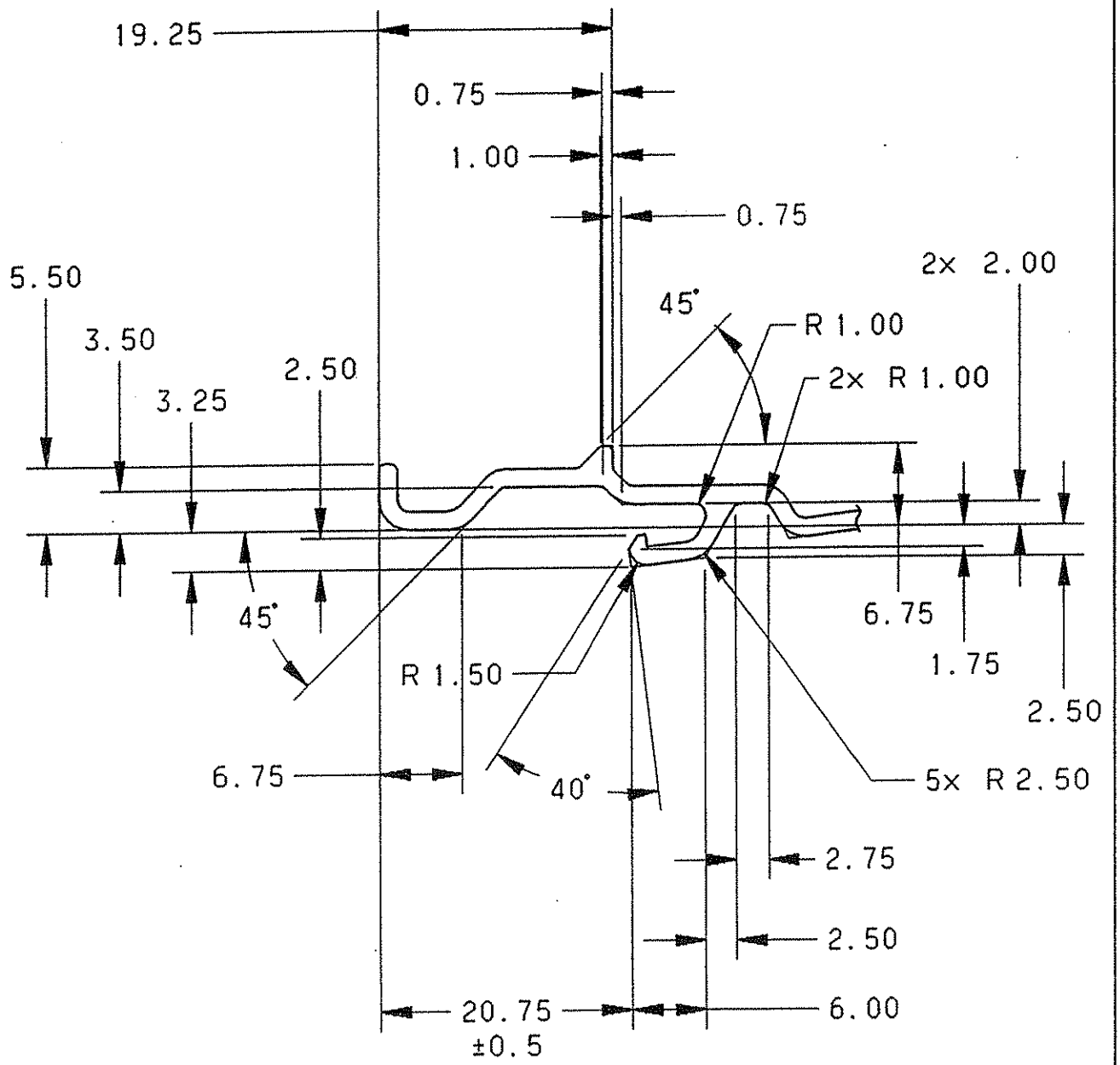


SCALE 2:1

DIMENSIONS IN mm

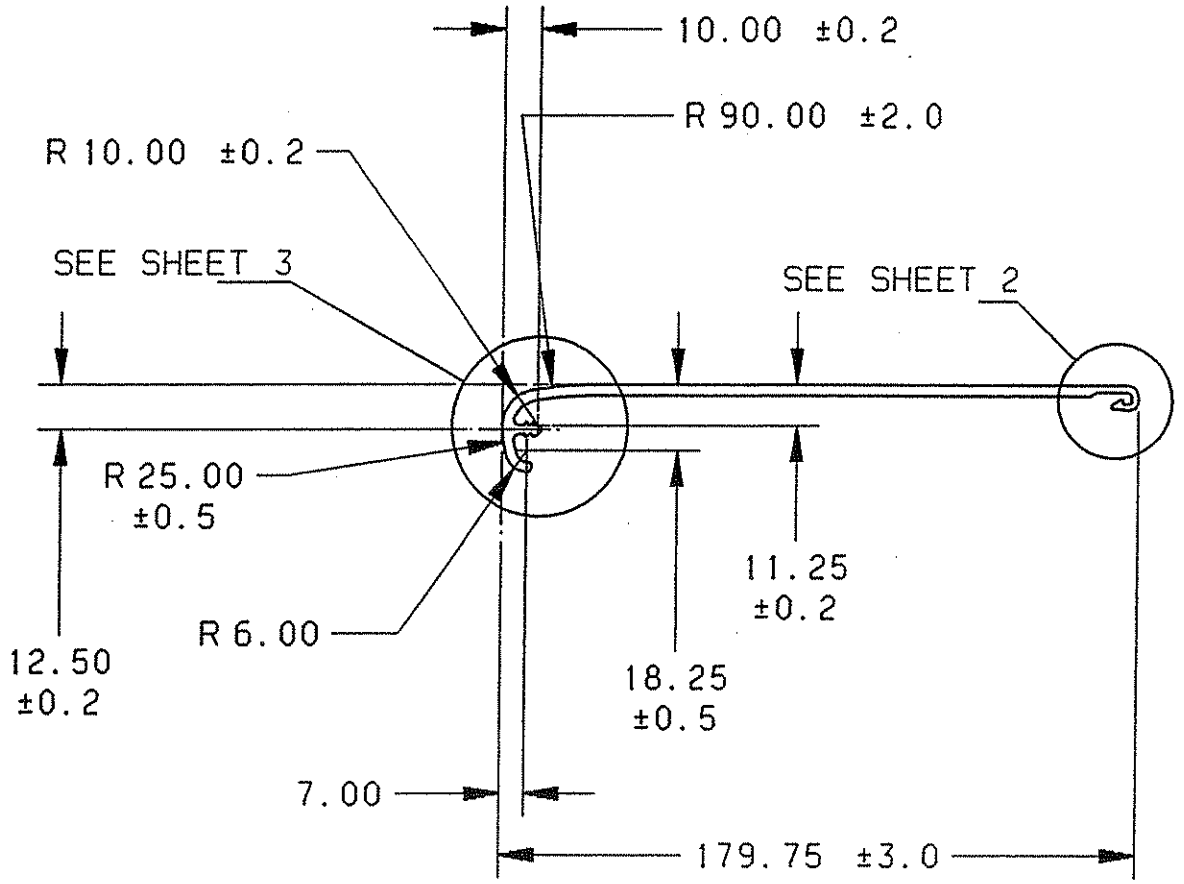
CHG	JOB NO	DATE	BY	REVISION
-	P00699-B2	07/08/98	PMS	INITIAL RELEASE

DRAWN	PMS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION. INNER. SHELF COVER P2 CLASS	48-25348
DATE	07/08/98	FREIGHTLINER CORPORATION PORTLAND. OREGON	SHEET 4 OF 4 / CHG. LTR. -
CATIA ORIGINAL			



CHG	JOB NO	DATE	BY	REVISION
-	P00699-B2	07/08/98	PMS	INITIAL RELEASE

DRAWN	PMS	TITLE	DRAWING NUMBER
APPRV	JMW	EXTRUSION. OUTER. SHELF COVER P2 CLASS	48-25349
DATE	07/08/98	FREIGHTLINER CORPORATION PORTLAND. OREGON	SHEET 1 OF 3 / CHG. LTR. -
CATIA ORIGINAL			



DIMENSIONS IN mm

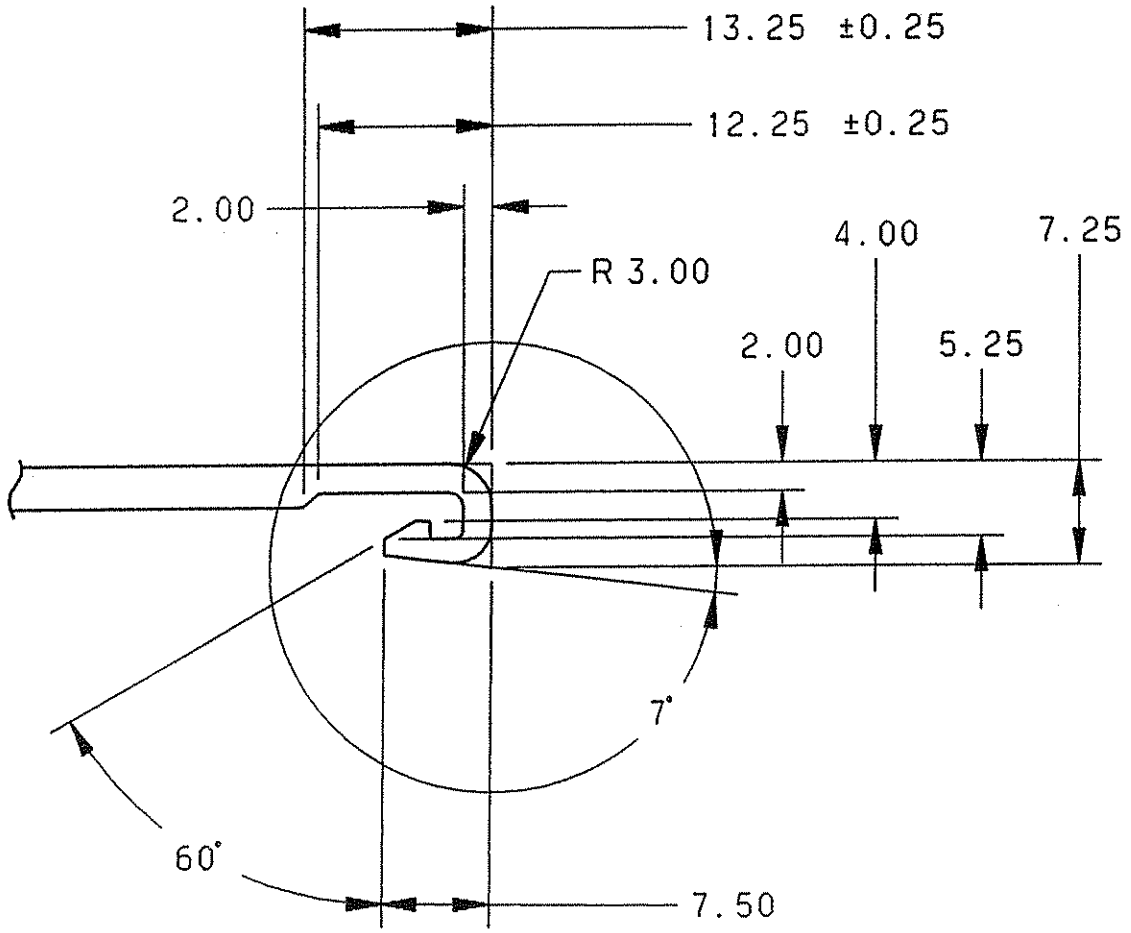
MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
VINYL V0253	620.0	0.9	48-25349-000

SPECIFICATIONS:

1. FINISH: NONE.
2. FOG TEST: MINIMUM VALUE OF 60 ON 1 AND 16 H VALUES FOR SAE J1756.
3. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
4. UNLESS OTHERWISE NOTED, TOLERANCES FOR LINEAR DIMENSIONS ± 0.1. ANGULAR DIMENSIONS ± 2 DEGREES.

CHG	JOB NO	DATE	BY	REVISION
-	P00699-B2	07/08/98	PMS	INITIAL RELEASE

DRAWN	PMS	TITLE	DRAWING NUMBER	
APPRV	JMW	EXTRUSION. OUTER. SHELF COVER P2 CLASS	48-25349	
DATE	07/08/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3	CHG. LTR. -
CATIA ORIGINAL				



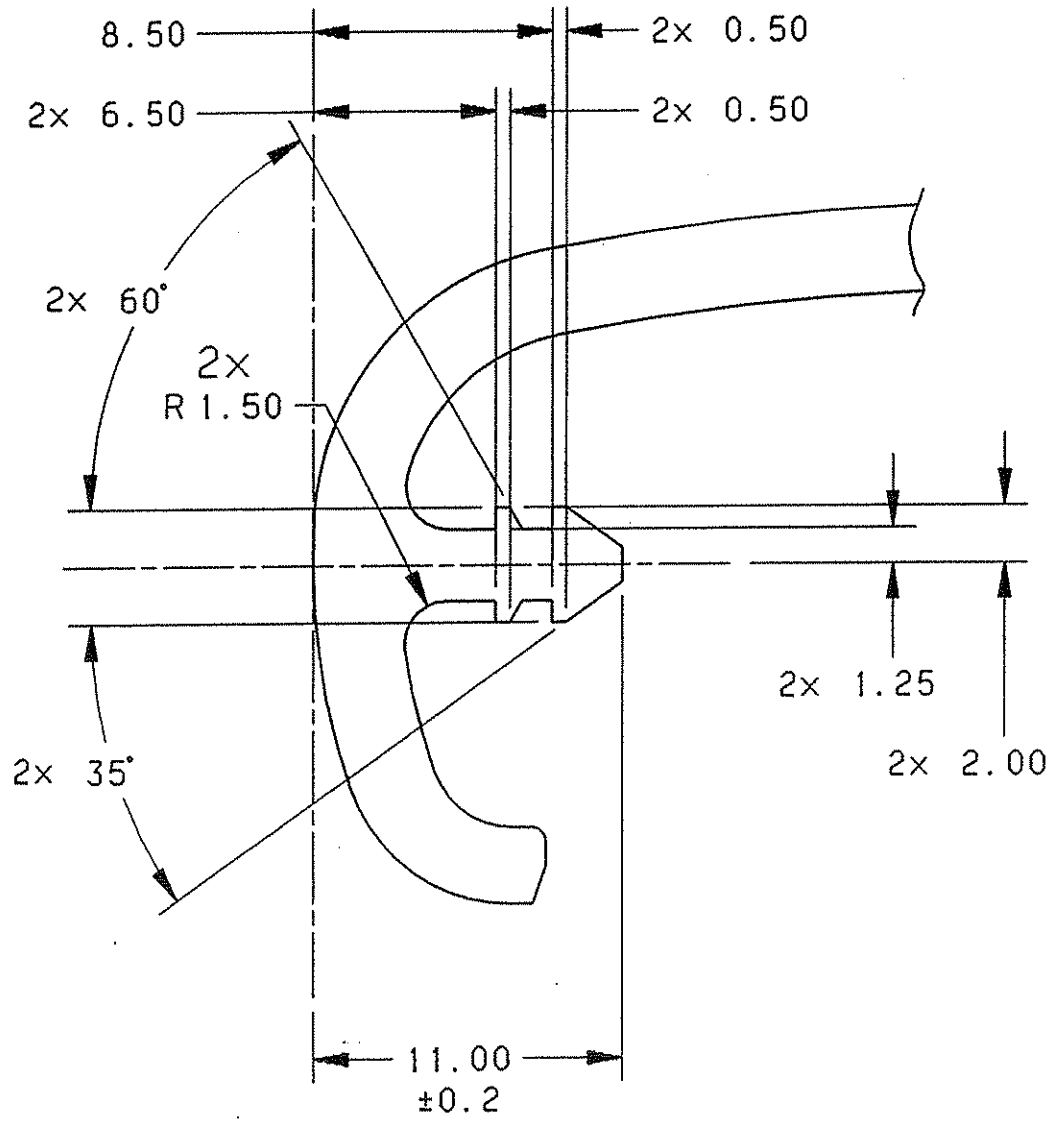
SCALE 2:1

NOTE: 1. UNLESS OTHERWISE SPECIFIED ALL RADII TO BE 0.5mm.
2. UNLESS OTHERWISE SPECIFIED WALL THICKNESS TO BE 3.0mm.

DIMENSIONS IN mm

CHG	JOB NO	DATE	BY	REVISION
-	P00699-B2	07/08/98	PMS	INITIAL RELEASE

DRAWN	PMS	TITLE EXTRUSION. OUTER. SHELF COVER P2 CLASS	DRAWING NUMBER 48-25349
APPRV	JMW		
DATE	07/08/98	FREIGHTLINER CORPORATION PORTLAND. OREGON	SHEET 3 OF 3 / CHG. LTR. -
CATIA ORIGINAL			



SCALE 4:1

DIMENSIONS IN mm

CHG	JOB NO	DATE	BY	REVISION
-	P00699-B2	07/08/98	PMS	INITIAL RELEASE

DRAWN	DAJ	TITLE	DRAWING NUMBER
APPRV	DAJ	PAINT - PRIMER	48-25352
DATE	07/15/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			

SCOPE: THIS SPECIFICATION IDENTIFIES AN ORGANIC ISOPROPANOL BASED METAL PRIMER.

APPLICATION: METAL PRIMER TO IMPROVE BONDING.

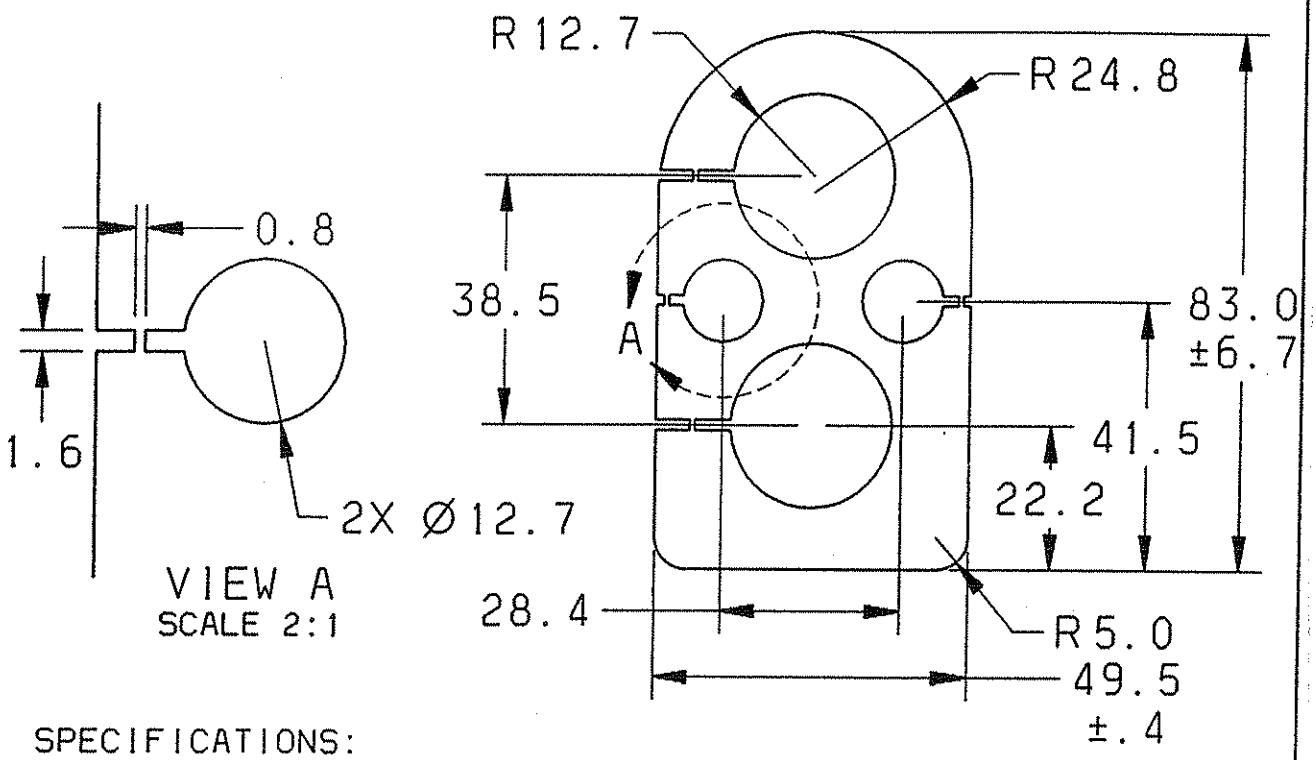
MANUFACTURER'S NUMBER	FREIGHTLINER SPECIFICATION NUMBER
ITW PLEXUS PC 120	48-25352-000

ENGINEERING NOTES:

1. MATERIAL (BASE): ISOPROPANOL
2. COLOR: RED
3. PHYSICAL PROPERTIES:
   SPECIFIC GRAVITY- 0.81
   VOC (GRAMS/LITER)- 778
   BOLLING POINT (°F)- 180

CHG	JOB NO	DATE	BY	REVISION
-	P00074-26	07/15/98	DAJ	INITIAL LOAD

DRAWN	AJD	TITLE INSULATOR, EXTRUSION	DRAWING NUMBER 48-25353
APPRV	DAJ		
DATE	07/31/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



SPECIFICATIONS:

1. MATERIAL: MEDIUM DENSITY EPDM/NEOPRENE SPONGE
   MUST CONFORM TO ASTM D 1056 2C3B
2. FINISH: AS EXTRUDED
3. PHYSICAL PROPERTIES: (ASTM D1056)

COLOR	BLACK
COMPRESSION/DEFLECTION	9-13 PSI
HEAT RESISTANCE (COMPRESSION/DEFLECTION) (% MAX- 163 HR @ 70 C)	-30% TO 30%
% COMPRESSION SET, % MAX (22 HRS @ 23 C)	25%
WATER ABSORPTION (% MAX WEIGHT CHANGE)	+5%
FLUID RESISTANCE (ASTM FUEL B) (168 HRS @ 23 C % MAX WEIGHT CHANGE)	150%

4. THIS PRODUCT COMES IN 4 FT LENGTHS.

CHG	JOB NO	DATE	BY	REVISION
-	P03175-11	07/31/98	AJD	INITIAL RELEASE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	CABLE-SAE J1939-15 THERMOSET INSULATION	48-25354	
DATE	08/05/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES A 2 CONDUCTOR ELECTRICAL CABLE MEETING SAE J1939-15 FOR USE IN LOW TENSION APPLICATIONS.

APPLICATION: AUTOMOTIVE ELECTRICAL WIRING, EXCEPT THE ENGINE STARTER POWER CIRCUIT, AND BATTERY INTERCONNECTION AND GROUNDING.

GAGE AWG STRANDED	CONDUCTORS	COLOR	MANUFACTURER		FREIGHTLINER SPECIFICATION NUMBER
			RAYCHEM	CHAMPLAIN	
18 18	2	GREEN YELLOW	2018D0309	12053	48-25354-180

ENGINEERING NOTES:

APPROVED VENDOR: RAYCHEM OR CHAMPLAIN, EQUIVALENT ACCEPTABLE WITH WRITTEN ENGINEERING APPROVAL.

CHG	JOB NO	DATE	BY	REVISION
-	B00437-01	08/05/98	DAJ	INITIAL LOAD

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	CONDUIT-NYLON, RED COPOLYMER, CONVOLUTED TUBING	48-25360	
DATE	10/14/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES A RED CONVOLUTED NYLON COPOLYMER TUBING.

APPLICATION: FLEXIBLE PROTECTIVE COVERING CAPABLE OF WITHSTANDING HIGH TEMPERATURE FOR ELECTRIC WIRING. FOR USE WITH POSITIVE CIRCUITS WIRES ONLY.

SIZE (MM)	REPLACES (INCHES)	O.D. (MM)	I.D. (MM)	FREIGHTLINER PART NUMBER
6	.250	10.15 - 9.55	6.99 - 6.10	48-25360-006
10	.413	15.09 - 14.45	10.72 - 10.08	48-25360-010
13	.500	17.65 - 17.02	12.93 - 12.29	48-25360-013
15	.625	20.34 - 19.32	15.61 - 14.54	48-25360-015
19	.750	25.02 - 24.38	19.18 - 18.54	48-25360-019
22	.875	29.00 - 28.36	22.52 - 21.88	48-25360-022
25	1.000	33.10 - 32.46	26.04 - 25.40	48-25360-025
30	1.181	38.10 - 37.10	30.50 - 29.50	48-25360-030
40	1.570	49.70 - 47.70	41.00 - 39.00	48-25360-040
47	1.816	58.15 - 54.45	47.85 - 46.15	48-25360-047

ENGINEERING NOTES:

1. MATERIAL: RED NYLON COPOLYMER
2. SLIT FULL LENGTH.
3. PHYSICAL PROPERTIES:
   - OPERATING TEMPERATURE RANGE (°C): -40 TO 120
   - PINCH AND ABRASION RESISTANCE: EXCELLENT
   - FLEXURL MODULUS MPa (per ASTM D790): 448-862
   - RESISTANCE TO AUTOMOTIVE FLUIDS: EXCELLENT
4. MUST CONFORM TO FMVSS 302 AND UL 94HB

CHG	JOB NO	DATE	BY	REVISION
-	P06533-01	10/14/98	DAJ	INITIAL RELEASE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-KNIT SEATING QUALITY	48-25365	
DATE	11/20/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. B
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A KNIT FABRIC.

APPLICATION: TRIM AND SEATING QUALITY - FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SEAT CUSHIONS AND BACKS AND WALL PANELS.

SPECIFICATION NUMBERS:

SEATING AND TRIM QUALITY.

COLOR	TYPE	MANUFACTURERS NO. GUILFORD MILLS	FREIGHTLINER PART NUMBER
ULTIMATE GRAPHITE	PLAIN	768T	48-25365-100
ULTIMATE RUSSET TAN	PLAIN	768T	48-25365-200
ULTIMATE MAPLE RED	PLAIN	768T	48-25365-300
ULTIMATE SILVERSLATE	PLAIN	768T	48-25365-400
ULTIMATE GRAPHITE	PATTERN	768T	48-25365-101
ULTIMATE RUSSET TAN	PATTERN	768T	48-25365-201
ULTIMATE MAPLE RED	PATTERN	768T	48-25365-301
ULTIMATE SILVERSLATE	PATTERN	768T	48-25365-401

CHG	JOB NO	DATE	BY	REVISION
-	P06241-01	11/20/98	DAJ	INITIAL RELEASE
A	P06241-02	01/19/99	GLB	WAS: ASTM D-1683 IS: FORD BN 119-01
				WAS: DRY-150 LBS. WET-150 LBS.
				WAS: DRY-110 LBS. WET-110 LBS.
B	P04977-13	08/13/99	SMC	ADDITION AND REVISION FOR COLOR UPDATE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-KNIT SEATING QUALITY	48-25365	
DATE	11/20/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. B
CATIA ORIGINAL				

ENGINEERING REQUIREMENTS

1.0 GENERAL REQUIREMENTS

DESCRIPTION

THIS SPECIFICATION QUALIFIES KNIT TYPE FABRICS THAT ARE SUITABLE FOR USE AS TRUCK SEAT UPHOLSTERY AND/OR INTERIOR TRIM. IT ALSO DESCRIBES THE GENERAL REQUIREMENTS FOR FABRIC PROPERTIES, IDENTIFICATION AND QUALITY.

DYE METHOD

UNLESS OTHERWISE SPECIFIED, FABRIC WILL BE PIECE DYED.

ALIGNMENT: (BOW AND BIAS)

THE DEGREE OF BOW AND BIAS IN THE FILLING DIRECTION SHALL NOT EXCEED 1/2 INCH FROM SELVAGE TO CENTER, ABOVE OR BELOW THE HORIZONTAL LINE, OR A TOTAL OF ONE INCH FROM SELVAGE TO SELVAGE ABOVE OR BELOW THE HORIZONTAL COMBINED. THIS REQM'T DOES NOT APPLY TO UNBACKED WOVEN MATERIAL.

SEAM STRENGTH: FORD BN 119-01

THE JOINING SEAM SHALL RESIST SLIPPAGE OF ANY YARN OR THREAD. THERE SHALL BE NO FRACTURES AT THE SEW LINE IN ANY MATERIAL. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED MATERIAL.

SEAM: JASO M-403 6-7

ABRASION: ASTM D3884

AFTER 500 CYCLES UNDER 250 GRAM LOAD USING CS-17 ABRASION WHEELS THER SHALL BE NO APPRECIABLE COLOR CHANGE OF THE ABRAIDED SURFACE AND NO VISIBLE YARN RUPTURES

DIELECTRIC BOND: GM 9184P (OR EQUIVALENT)

THERE SHALL BE NO LIFTING IN THE DIE LINES AFTER 4 HOURS OF EXPOSURE AT 85°.

CHG	JOB NO	DATE	BY	REVISION
-	P06241-01	11/20/98	DAJ	INITIAL RELEASE
A	P06241-02	01/19/99	GLB	WAS: ASTM D-1683 IS: FORD BN 119-01
				WAS: DRY-150 LBS. WET-150 LBS.
				WAS: DRY-110 LBS. WET-110 LBS.
B	P04977-13	08/13/99	SMC	ADDITION AND REVISION FOR COLOR UPDATE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-KNIT SEATING QUALITY	48-25365	
DATE	11/20/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. B
CATIA ORIGINAL				

GENERAL REQUIREMENTS (CONT'D)

COLORFASTNESS (CROCKING): AATCC TEST METHOD 8

A CROCKING TEST PERFORMED WET AND DRY SHALL SHOW NO APPRECIABLE STAINING OF THE CONTACT FABRIC AND HAVE A MINIMUM AATC RATING OF FOUR (4) DRY AND THREE (3) WET WHEN COMPARED TO THE AATCC COLOR TRANSFERENCE EVALUATION CHART.

COLORFASTNESS (FADE:AATCC TEST METHOD 16A

THERE SHALL BE NO OFF TONE COLOR ALTERATION AFTER EXPOSURE TO 80 HOUR CARBON ARC FADEOMETER TEST.

BLEEDING AND PERSPIRATION : AATCC TEST METHOD 15

THE CONTACT FABRIC SHALL REMAIN VIRTUALLY UNSTAINED AND TEST SAMPLE SHALL SHOW NO APPARENT CHANGE IN COLOR.

TENSILE STRENGTH (WET AND DRY): ASTM D5034

MINIMUM REQUIREMENTS TO BE DETERMINED BY FABRIC SELECTED.

FLAMMABILITY REQUIREMENT: FMVSS-302

MATERIAL SUPPLIED TO THIS SPECIFICATION SHALL CONFORM TO AND BE CERTIFIED BY THE FABRIC SUPPLIER TO MEET THE REQUIREMENTS OF THE FEDERAL MOTOR VEHICLE SAFETY STANDARD#302..... FLAMMABILITY OF INTERIOR MATERIALS.

IDENTIFICATION

THE BACK OF FABRIC SHALL REFLECT MANUFACTURERS INITIALS WITH THE MONTH AND YEAR OF FABRICATION EQUALLY SPACED A MINIMUM OF (5) TIMES ACROSS THE WIDTH AND LINEAR SPACING OF NOT MORE THAN TWELVE (12) INCHES.

CHG	JOB NO	DATE	BY	REVISION
-	P06241-01	11/20/98	DAJ	INITIAL RELEASE
A	P06241-02	01/19/99	GLB	WAS: ASTM D-1683 IS: FORD BN 119-01
				WAS: DRY-150 LBS. WET 150 LBS.
				WAS: DRY-110 LBS. WET 110 LBS.
B	P04977-13	08/13/99	SMC	ADDITION AND REVISION FOR COLOR UPDATE

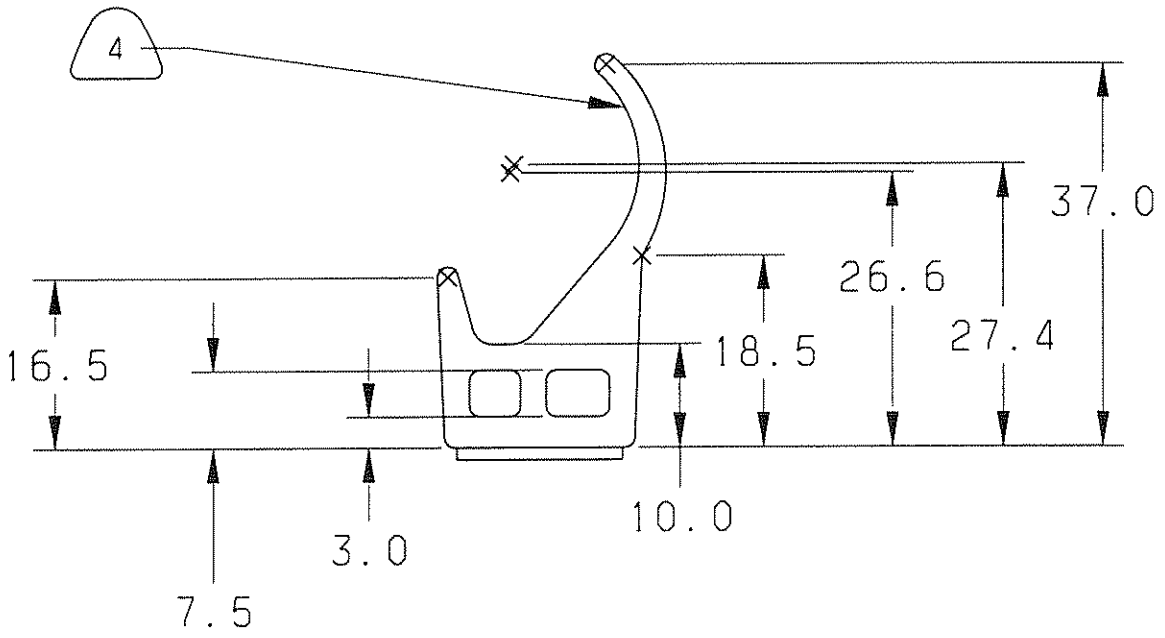
DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-KNIT SEATING QUALITY	48-25365	
DATE	11/20/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4	CHG. LTR. B
CATIA ORIGINAL				

2.0 SPECIFIC REQUIREMENTS:

REQUIREMENT	SPECIFICATION	TEST METHOD
PILE YARN	CO-MINGLED 150/48/33 FLAT TEXTURED POLY	--------
WARP YARN BACKING	100 POLYESTER	--------
FILLING YARN-BACKING	100 POLYESTER	--------
COURSES: ENDS/INCH	------	--------
WALES/INCH	------	--------
PILE TUFTS/SQ INCH	N/A	--------
FINISHED WT: OZS/SQ YD	13.7 OZ ·5%	ASTM D 3776
BACK COATING TYPE:	SPRAY COAT	--------
FINISHED WIDTH:	54"	
SEAM STRENGTH	RESIST SLIPPAGE OF ANY SINGLE THREAD-NO FRACTURES AT SEW LINE	FORD BN 119-01
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE	ASTM D-3884
COLORFASTNESS (CROCK)	DRY (5) - WET (5)	AATCC TEST #8
COLORFASTNESS (FADE)	80 HOURS FDA-R NO OFF TONE FADE	AATCC TEST #16A
BLEED & PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR CHANGE	AATCC TEST #15
TENSILE STRENGTH(MIN)	WARP: 373 LBS. FILL: 185 LBS.	ASTM D5034
TEAR STRENGTH (MIN)	WARP: 46.5 LBS. FILL: 25.4 LBS.	ASTM D2262
FLAMMABILITY RESISTANCE	MAX. BURN RATE 4" MIN.	FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	P06241-01	11/20/98	DAJ	INITIAL RELEASE
A	P06241-02	01/19/99	GLB	WAS: ASTM D-1683 IS: FORD BN 119-01
				WAS: DRY-150 LBS. WET-150 LBS.
				IS: DRY-110 LBS. WET-110 LBS.
B	P04977-13	08/13/99	SMC	ADDITION AND REVISION FOR COLOR UPDATE

DRAWN	CNZ	TITLE	DRAWING NUMBER	
APPRV	DBW	EXTR-SEAL, SECONDARY CAB DOOR, CENTURY CLASS	48-25366	
DATE	11/12/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3	CHG. LTR. A
CATIA ORIGINAL				



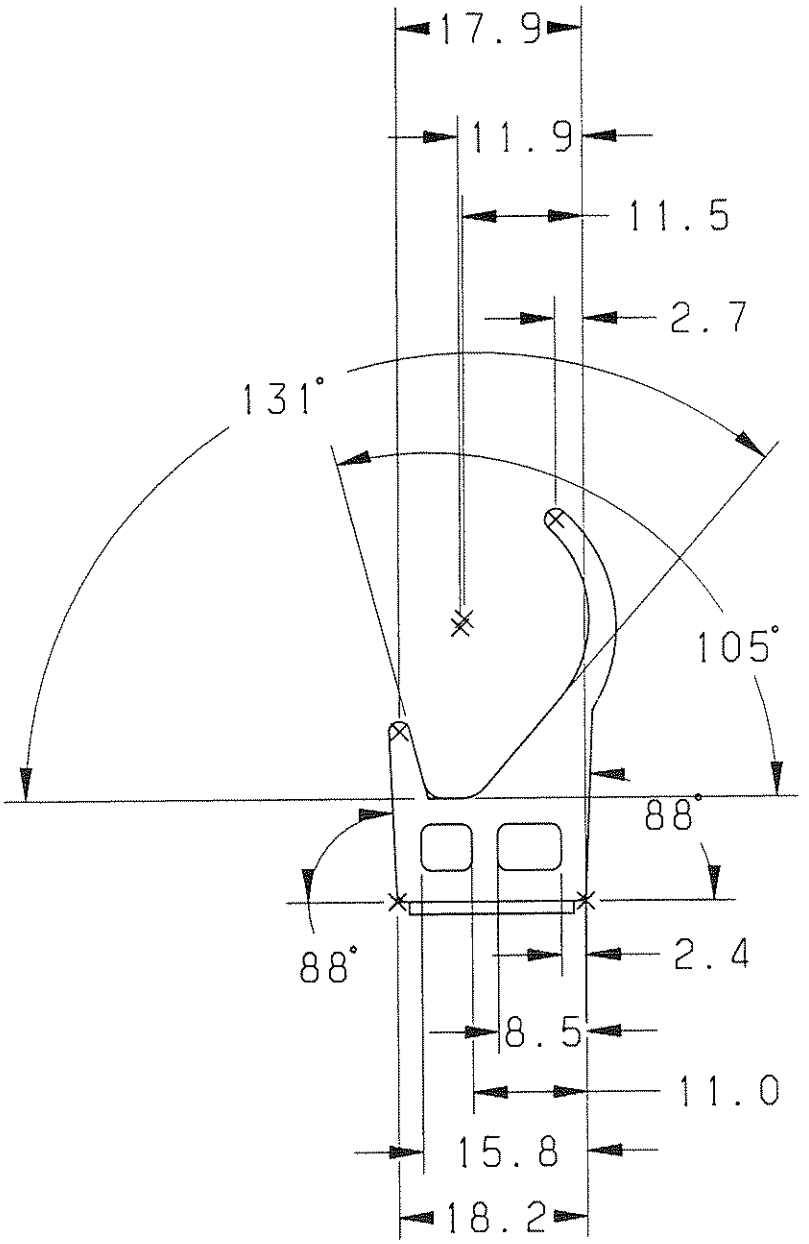
MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
(4)	277.23	0.85	48-25366-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED.
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES TO COMFORM WITH RMA CALSS 2 COMMERCIAL STANDARDS.
4. MATERIAL: EPDM PER ASTM D2000M3BA510A14B13C12F17Z1.
5. HEAT ACTIVATED TAPE 15.9 WIDE X1.19 THICK PER 3M 4987.

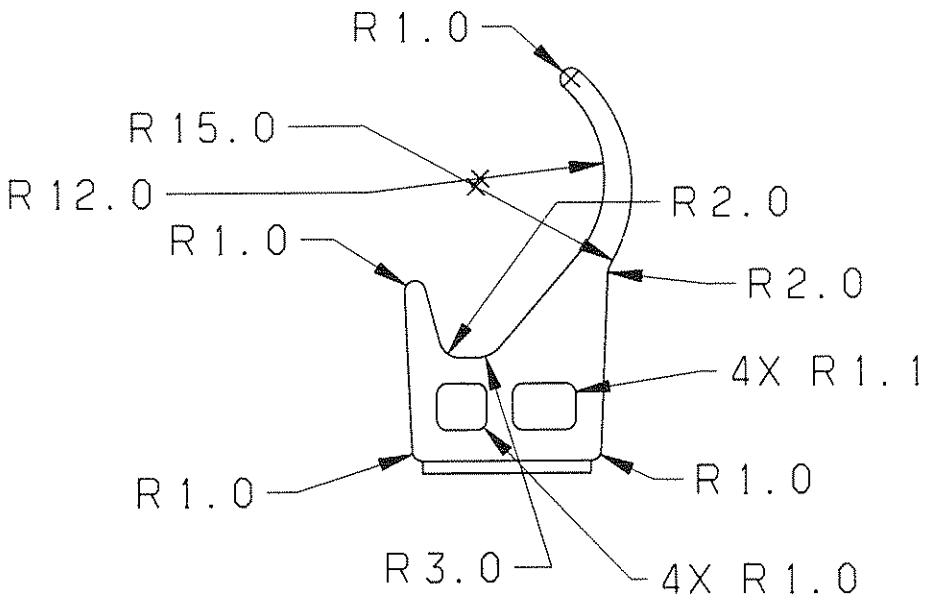
CHG	JOB NO	DATE	BY	REVISION
-	P07613-01	06/23/99	CNZ	INITIAL RELEASE
A	P10407-01	10/29/99	CNZ	REDESIGN

DRAWN	CNZ	TITLE EXTR-SEAL, SECONDARY CAB DOOR-CENTURY CLASS	DRAWING NUMBER 48-25366
APPRV	DBW		
DATE	11/12/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3 / CHG. LTR. A
CATIA ORIGINAL			



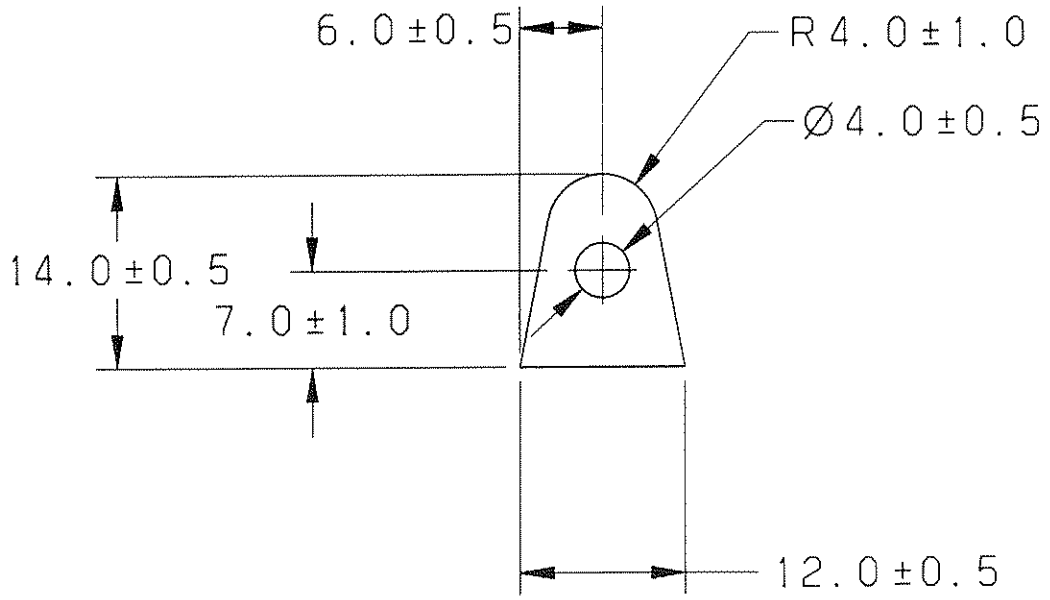
CHG	JOB NO	DATE	BY	REVISION
-	P07613-01	06/23/99	CNZ	INITIAL RELEASE
A	P10407-01	10/29/99	CNZ	REDESIGN

DRAWN	CNZ	TITLE	DRAWING NUMBER	
APPRV	DBW	EXTR-SEAL, SECONDARY CAB DOOR-CENTURY CLASS	48-25366	
DATE	11/12/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3	CHG. LTR. A
CATIA ORIGINAL				



CHG	JOB NO	DATE	BY	REVISION
-	P07613-01	06/23/99	CNZ	INITIAL RELEASE
A	P10407-01	10/29/99	CNZ	REDESIGN

DRAWN	RAR	TITLE EXTR-GASKET, SEAL HEADLAMP	DRAWING NUMBER 48-25382
APPRV	DAJ		
DATE	10/13/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	F/L SPEC NO.
1	48-25382-000

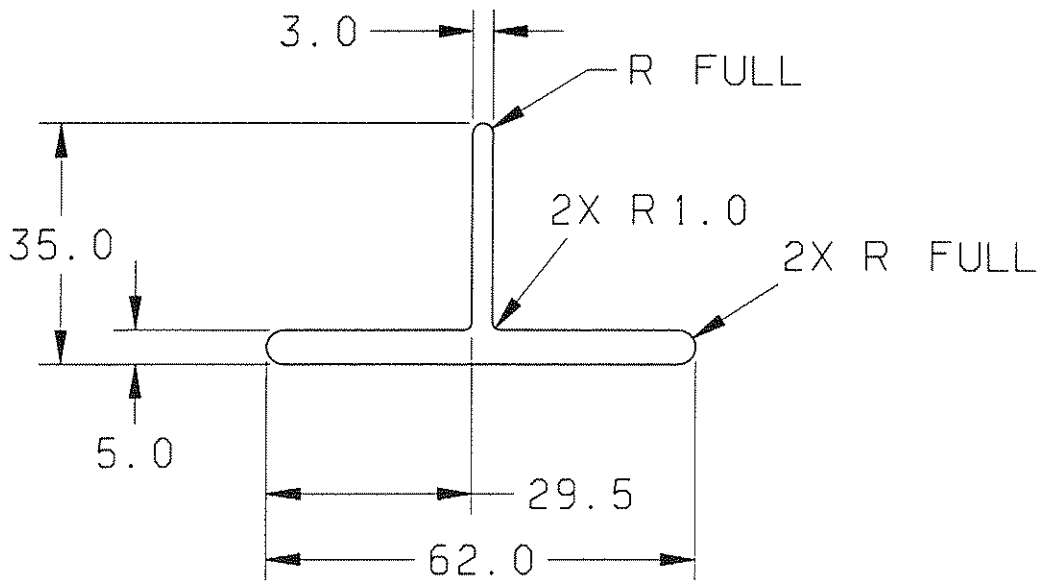
SPECIFICATIONS:

1 MATERIAL: MANTALINE CORP. COMPOUND 55150
BLACK MED. DENSITY EPDM/NEOPRENE SPONGE
PER ASTM D 1056 2C4 B C1

CHG	JOB NO	DATE	BY	REVISION
-	P06868-49	10/13/99	RAR	INITIAL RELEASE

48-25384 , - , EXTRUSION-ALUMINUM,

DRAWN	BNT	TITLE EXTRUSION-ALUMINUM, ENDCAP FIXED OUTBD DECK PLATE	DRAWING NUMBER 48-25384	
APPRV	DAJ			
DATE	03/03/99			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
6005-T5	0.61	0.06	48-25384-000

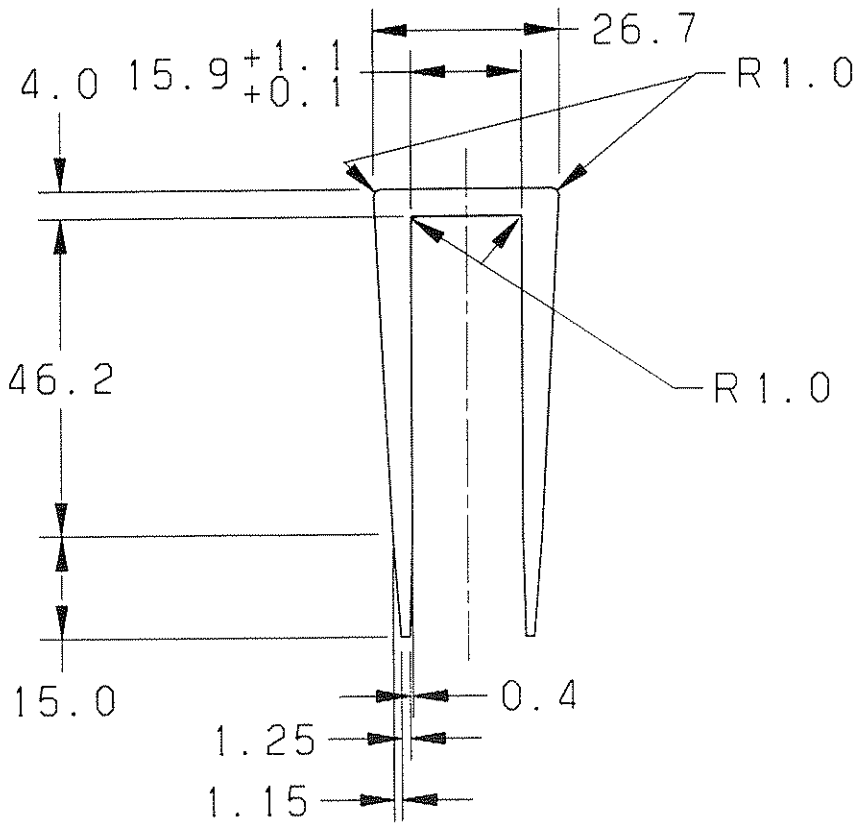
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P07084-01	03/03/99	BNT	INITIAL RELEASE

48-25388 , A , EXTRUSION-ALUMINUM

DRAWN	GRD	TITLE	DRAWING NUMBER	
APPRV	NZ	EXTRUSION-ALUMINUM FLC	48-25388	
DATE	03/08/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				



MATERIAL	AREA SQ. MM.	WEIGHT KG/M	F/L SPEC NO.
6061-T6 ALUMINUM EXTRUSION	535.5	1.458	48-25388-000

(A)

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P07437-13	03/08/99	GRD	INITIAL RELEASE
A	P04839-28	10/20/99	JJM	"6061-T6" WAS "6005-T5"
				CORRECTED AREA AND WEIGHT OF EXTRUSION
				MODIFIED DIMENSIONS

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	CARPET 34 OZ BCF NYLON	48-25399	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A CAB INTERIOR CARPET

APPLICATION: A 100% BCF NYLON FACE 1/8 GAUGE CUT/UNCUT CONSTRUCTION CARPET THAT IS SUITABLE FOR USE AS AN AUTOMOTIVE TRIM. SIDEWALL COVERING AND OTHER APPLICATIONS AS APPROVED.

SPECIFICATION NUMBERS:

COLOR	FREIGHTLINER PART NUMBER
SANDSTONE	48-25399-010
GARNET	48-25399-009
PEWTER	48-25399-008
MEDIUM GRAPHITE	48-25399-007
MYSTIC GRAY	48-25399-006
RED STARLIGHT	48-25399-005
GALAXY BLUE	48-25399-004
CHAMPAGNE	48-25399-003
RUSSET TAN	48-25399-002
MAPLE RED	48-25399-001
SILVERSLATE	48-25399-000

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	CARPET 34 OZ BCF NYLON	48-25399	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. -
CATIA ORIGINAL				

GENERAL REQUIREMENTS

DESCRIPTION:

PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY (MOLDED OR OTHERWISE FABRICATED)

CONSTRUCTION REQUIREMENTS

PILE YARN

YARN TYPE.....100% BCF NYLON

YARN SIZE.....2000/1

TWIST AND DIRECTION.....0.0

TUFTING FABRIC

THE 24X13 PICK PLAIN WOVEN NYLON FABRIC SHALL BE UNIFORM IN CONSTRUCTION AND SHALL HAVE A MASS BETWEEN 102.5 G./SQ.M. (3.0 OZ./SQ.YD.) AND 114 G./SQ.M. (3.4 OZ./SQ.YD.)

BACKCOATING TYPE

DASH NUMBER -X00.....BLACK SBR LATEX

DYE METHOD..... SOLUTION DYED YARN

FINISHED CARPET

FINISHED WIDTH.....182.88 CM OR 72 IN.

NEEDLE GAUGE.....2.5MM (1/10 IN.) CUT

FINISHED ROW COUNT OF PILE.....10.0 ROWS/IN

FINISHED STITCH COUNT OF PILE.....2000 DEN. / 32/3" ST./IN.

HEIGHT OF PILE.....MIN 3/32", MAX 1/4, NOMINAL .17

PATTERN DIRECTION

THEIR IS A MACHINE PATTERN IN THE CARPET RUNNING DOWN THE ROLL. CARE MUST BE EXERCISED IN FABRICATING PARTS TO INSURE PROPER ALIGNMENT OF PATTERN.

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	CARPET 34 OZ BCF NYLON	48-25399	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. -
CATIA ORIGINAL				

GENERAL REQUIRMENTS (CONTINUED)

FINISHED MASS -X00

	OZ/SQ YD
PILE	20
BACKING FABRIC*	4
BACKING COATING	10
TOTAL*	34

* HEAVIER BACKING FABRIC MAY BE SPECIFIED FOR SOME APPLICATIONS.

PERFORMANCE REQUIRMENTS

TENSILE STRENGHT.....MD(WARP)...MINIMUM 689 N (155 LB)
AMD (FILLING)...MINIMUM 556 N (125 LB)

TEAR RESISTANCE.....MD (ACROSS WARP)...MINIMUM 89 N (15 LB)
AMD (ACROSS FILLING)...MINIMUM 53 N (12 LB)

SHRINKAGE.....MD (WARP)...MAXIMUM 2.0%
AMD (FILLING)...MAXIMUM 2.0%

WEAR RESISTANCE-1600 CYCLES (TABER ABRADER, H-18 WHEELS 1000 G LOAD)...THE CARPET SURFACE SHALL NOT BE WORN DOWN TO THE TOP SURFACE OF THE BACKING FABRIC FOR MORE THAN 10% OF THE ABRADED AREA

RESISTANCE TO CROCKING-AATCC.RATING...DRY..MINIMUM 3.5
WET..MINIMUM 3.5

RESISTANCE TO BLEED-AATC.....RATING.....MINIMUM 5

FADE RESISTANCE**.....NO FADE OR COLOR CHANGE LOWER THAN THE RATING (80 STANRDARD FADEOMETER HOURS) 3-4 ON THE ISO GRAY SCALE FOR EVALUATING CHANGE IN COLOR.

** FADE RESISTANCE TESTS ARE REQUIRED ONLY FOR AREAS EXPOSED TO SUNLIGHT.

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	CARPET 34 OZ BCF NYLON	48-25399	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4	CHG. LTR. -
CATIA ORIGINAL				

METHODS OF TESTING

TOTAL MASS.....ASTM D418, SECTION 7
(SPECIMEN SIZE -12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD, AVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED 2"/MIN READ PEAK LOAD, AVERAGE OF 5 TESTS)

SHRINKAGE, MAX.....SAE J883 (REMEASURE AFTER 24 HRS. AT STANDARD CONDITIONS)

WEAR RESISTANCE.....TABER ABRADER (H-18 WHEEL, 1000 G LOAD, 1600 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

RESISTANCE TO BLEED.....CUSTOMER TEST:
#1 MULTIFIBER CLOTH-ACETATE COTTON-NYLON-SILK-VISCOSE-WOOL. DISH WITH MULTIFIBER CLOTH, CARPET FACE DOWN RUNNING OPPOSITE TO CLOTH, 5 GLASS PLATES ON TOP, 25CC WATER, SOAK FOR 15 MINUTES, SQUEEZE OUT EXCESS WATER, THEN PUT IN LARGER OVEN FOR 4 HOURS, LETTING THEM IN DISHES.

FADE RESISTANCE.....AATCC 16A, CARBON ARC

FLAMMABILITY.....FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 302

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE CARPET 34 OZ NYLON	DRAWING NUMBER 48-25400
APPRV	KMM		
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

SCOPE: THIS SPECIFICATION IDENTIFIES A CAB INTERIOR CARPET

APPLICATION: A 100% NYLON FACE 1/8 GAUGE CUT/UNCUT CONSTRUCTION CARPET THAT IS SUITABLE FOR USE AS AN AUTOMOTIVE TRIM. FLOOR COVERING AND OTHER APPLICATIONS AS APPROVED.

SPECIFICATION NUMBERS:

PATTERN AND/OR COLOR NO.	MANUFACTURERS NO. DORSETT	FREIGHTLINER PART NUMBER
GALAXY BLUE	-	48-25400-000
MYSTIC GRAY	-	48-25400-001
RED STARLIGHT	-	48-25400-002

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	CARPET 34 OZ NYLON	48-25400	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. -
CATIA ORIGINAL				

GENERAL REQUIREMENTS

DESCRIPTION:

PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY (MOLDED OR OTHERWISE FABRICATED)

CONSTRUCTION REQUIREMENTS

PILE YARN

YARN TYPE.....100% BCF POLYPROPYLYNE

YARN SIZE.....2000/1 OR 2750/1 DENIER

TWIST AND DIRECTION.....0.0

TUFTING FABRIC

THE 24X13 PICK PLAIN WOVEN POLYPROPYLENE FABRIC SHALL BE UNIFORM IN CONSTRUCTION AND SHALL HAVE A MASS BETWEEN 102.5 G./SQ.M. (3.0 OZ./SQ.YD.) AND 114 G./SQ.M. (3.4 OZ./SQ.YD.)

BACKCOATING TYPE

DASH NUMBER -X00.....LATEX

DYE METHOD..... SOLUTION DYED YARN

FINISHED CARPET

FINISHED WIDTH.....182.88 CM OR 72 IN.

NEEDLE GAUGE.....3.17MM (1/8 IN.) CUT

FINISHED ROW COUNT OF PILE.....8.0 ROWS/IN OR 31.5 ROWS /10 CM

FINISHED STITCH COUNT OF PILE.....	2000 DEN.	2750 DEN.
	13.3 ST./IN.	9.6 ST./IN.

HEIGHT OF PILE.....7.14MM (0.28125 IN.)

PATTERN DIRECTION

THEIR IS A MACHINE PATTERN IN THE CARPET RUNNING DOWN THE ROLL. CARE MUST BE EXERCISED IN FABRICATING PARTS TO INSURE PROPER ALIGNMENT OF PATTERN.

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	CARPET 34 OZ NYLON	48-25400	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. -
CATIA ORIGINAL				

GENERAL REQUIRMENTS (CONTINUED)

FINISHED MASS [-X00]

	G/SQ M	OZ/SQ YD
PILE	678	20
BACKING FABRIC	108	3.2
BACKING COATING	441	13
TOTAL*	1227	36.2

* HEAVIER BACKING FABRIC MAY BE SPECIFIED FOR SOME APPLICATIONS.

PERFORMANCE REQUIRMENTS

MASS -X00 ..... 1.16 KG/SQ M (34.42 OZ/SQ YD) ± 10%

TENSILE STRENGHT ..... MD(WARP)...MINIMUM 445 N (100 LB)
AMD (FILLING)...MINIMUM 356 N (80 LB)

TEAR RESISTANCE ..... MD (ACROSS WARP)...MINIMUM 36 N (8 LB)
AMD (ACROSS FILLING)...MINIMUM 36 N (8 LB)

SHRINKAGE ..... MD (WARP)...MAXIMUM 1.0%
AMD (FILLING)...MAXIMUM 1.0%

WEAR RESISTANCE-5000 CYCLES (TABER ABRADER, H-18 WHEELS 1000 G LOAD)...THE CARPET SURFACE SHALL NOT BE WORN DOWN TO THE TOP SURFACE OF THE BACKING FABRIC FOR MORE THAN 10% OF THE ABRADED AREA

RESISTANCE TO CROCKING-AATCC. RATING...DRY..MINIMUM 2.5
WET..MINIMUM 2.5

RESISTANCE TO BLEED-AATC ..... RATING ..... MINIMUM 2.5

FADE RESISTANCE** ..... NO FADE OR COLOR CHANGE LOWER THAN THE RATING (80 STANRDARD FADEOMETER HOURS) 3-4 ON THE ISO GRAY SCALE FOR EVALUATING CHANGE IN COLOR.

** FADE RESISTANCE TESTS ARE REQUIRED ONLY FOR AREAS EXPOSED TO SUNLIGHT.

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE CARPET 34 OZ NYLON	DRAWING NUMBER 48-25400
APPRV	KMM		
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

METHODS OF TESTING

TOTAL MASS.....ASTM D418, SECTION 7
(SPECIMEN SIZE -12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD, AVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED 2"/MIN READ PEAK LOAD AVERAGE OF 5 TESTS.

SHRINKAGE MAX.....SAE J883 (REMEASURE AFTER 24 HRS. AT STANDARD CONDITIONS.

WEAR RESISTANCE.....TABER ABRADER (H-18 WHEEL, 1000 G LOAD, 5000 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

RESISTANCE TO BLEED.....CUSTOMER TEST:
#1 MULTIFIBER CLOTH-ACETATE COTTON-NYLON-SILK-VISCOSE-WOOL. DISH WITH MULTIFIBER CLOTH, CARPET FACE DOWN RUNNING OPPOSITE TO CLOTH. 5 GLASS PLATES ON TOP, 25CC WATER, SOAK FOR 15 MINUTES, SQUEEZE OUT EXCESS WATER, THEN PUT IN LARGER OVEN FOR 4 HOURS. LETTING THEM IN DISHES.

FADE RESISTANCE.....AATCC 16E, XENON ARC

FLAMMABILITY.....FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 302

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	MAT - VINYL GRAINED, LAVA	48-25401	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES SOLID POLYPROPYLENE MATTING WITH LAVA GRAIN TEXTURE.

APPLICATION: INTERIOR FLOOR COVERING.

THICKNESS (INCHES) ±.015	TEXTURE	COLOR	MFG/PN LEAR	FREIGHTLINER SPECIFICATION NUMBER
1/8	LAVA GRAIN	ASH	----	48-25401-000

ENGINEERING NOTES:

1. MATERIAL: POLYPROPYLENE
2. HARDNESS, DUROMETER A (PER ASTM D2240).....80-95
3. WEIGHT (g/m^2, MINIMUM).....920
4. ELONGATION WMD/AMD (%, MINIMUM).....350
5. TENSILE STRENGTH (N,MINIMUM) ASTM D412.....350
6. TEAR STRENGTH (N, MINIMUM) ASTM D624.....55
7. APPEARANCE: COLOR, PATTERN, FINISH AND GLOSS SHALL MATCH THE APPROVED FREIGHTLINER MASTER STANDARD.

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	09/08/99	GJB	INITIAL RELEASE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-WOVEN SEATING QUALITY	48-25408	
DATE	11/20/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A WOVEN FABRIC.

APPLICATION: TRIM AND SEATING QUALITY - FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SEAT CUSHIONS AND WALL PANELS.

SPECIFICATION NUMBERS:

SEATING AND TRIM QUALITY.

COLOR	TYPE	MANUFACTURERS NO. GUILFORD MILLS	FREIGHTLINER PART NUMBER
PRESTIGE SANDSTONE	PLAIN	586	48-25408-000
PRESTIGE PEWTER	PLAIN	586	48-25408-001
PRESTIGE GARNET	PLAIN	586	48-25408-002
PRESTIGE SANDSTONE	PATTERN	714	48-25408-003
PRESTIGE PEWTER	PATTERN	714	48-25408-004
PRESTIGE GARNET	PATTERN	714	48-25408-005

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/13/99	SMC	INITIAL RELEASE
				WAS: ASTM D-1683 IS: FORD BN 119-01
				WAS: DRY-150 LBS. WET-150 LBS.
				WAS: DRY-110 LBS. WET-110 LBS.
				ADDITION AND REVISION FOR COLOR UPDATE

DRAWN	DAJ	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-WOVEN SEATING QUALITY	48-25408	
DATE	11/20/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. -
CATIA ORIGINAL				

ENGINEERING REQUIREMENTS

1.0 GENERAL REQUIREMENTS

DESCRIPTION

THIS SPECIFICATION QUALIFIES KNIT TYPE FABRICS THAT ARE SUITABLE FOR USE AS TRUCK SEAT UPHOLSTERY AND/OR INTERIOR TRIM. IT ALSO DESCRIBES THE GENERAL REQUIREMENTS FOR FABRIC PROPERTIES, IDENTIFICATION AND QUALITY.

DYE METHOD

UNLESS OTHERWISE SPECIFIED, FABRIC WILL BE PIECE DYED.

ALIGNMENT: (BOW AND BIAS)

THE DEGREE OF BOW AND BIAS IN THE FILLING DIRECTION SHALL NOT EXCEED 1/2 INCH FROM SELVAGE TO CENTER, ABOVE OR BELOW THE HORIZONTAL LINE, OR A TOTAL OF ONE INCH FROM SELVAGE TO SELVAGE ABOVE OR BELOW THE HORIZONTAL COMBINED. THIS REQM'T DOES NOT APPLY TO UNBACKED WOVEN MATERIAL.

SEAM STRENGTH: FORD BN 119-01

THE JOINING SEAM SHALL RESIST SLIPPAGE OF ANY YARN OR THREAD. THERE SHALL BE NO FRACTURES AT THE SEW LINE IN ANY MATERIAL. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED MATERIAL.

SEAM: JASO M-403 6-7

ABRASION: ASTM D3884

AFTER 500 CYCLES UNDER 250 GRAM LOAD USING CS-17 ABRASION WHEELS THER SHALL BE NO APPRECIABLE COLOR CHANGE OF THE ABRAIDED SURFACE AND NO VISIBLE YARN RUPTURES

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/13/99	SMC	INITIAL RELEASE
				WAS: ASTM D-1683 IS: FORD BN 119-01
				WAS: DRY-150 LBS. WET-150 LBS.
				WAS: DRY-110 LBS. WET-110 LBS.
				ADDITION AND REVISION FOR COLOR UPDATE

DRAWN	DAJ	TITLE FABRIC-WOVEN SEATING QUALITY	DRAWING NUMBER 48-25408
APPRV	DAJ		
DATE	11/20/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

GENERAL REQUIREMENTS (CONT'D)

COLORFASTNESS (CROCKING): AATCC TEST METHOD 8

A CROCKING TEST PERFORMED WET AND DRY SHALL SHOW NO APPRECIABLE STAINING OF THE CONTACT FABRIC AND HAVE A MINIMUM AATC RATING OF FOUR (4) DRY AND THREE (3) WET WHEN COMPARED TO THE AATCC COLOR TRANSFERENCE EVALUATION CHART.

COLORFASTNESS (FADE:AATCC TEST METHOD 16A

THERE SHALL BE NO OFF TONE COLOR ALTERATION AFTER EXPOSURE TO 80 HOUR CARBON ARC FADEOMETER TEST.

BLEEDING AND PERSPIRATION : AATCC TEST METHOD 15

THE CONTACT FABRIC SHALL REMAIN VIRTUALLY UNSTAINED AND TEST SAMPLE SHALL SHOW NO APPARENT CHANGE IN COLOR.

TENSILE STRENGTH (WET AND DRY): ASTM D5034

MINIMUM REQUIREMENTS TO BE DETERMINED BY FABRIC SELECTED.

FLAMMABILITY REQUIREMENT: FMVSS-302

MATERIAL SUPPLIED TO THIS SPECIFICATION SHALL CONFORM TO AND BE CERTIFIED BY THE FABRIC SUPPLIER TO MEET THE REQUIREMENTS OF THE FEDERAL MOTOR VEHICLE SAFETY STANDARD#302..... FLAMMABILITY OF INTERIOR MATERIALS.

IDENTIFICATION

THE BACK OF FABRIC SHALL REFLECT MANUFACTURERS INITIALS WITH THE MONTH AND YEAR OF FABRICATION EQUALLY SPACED A MINIMUM OF (5) TIMES ACROSS THE WIDTH AND LINEAR SPACING OF NOT MORE THAN TWELVE (12) INCHES.

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/13/99	SMC	INITIAL RELEASE
				WAS: ASTM D-1683 IS: FORD BN 119-01
				WAS: DRY-150 LBS. WET 150 LBS.
				WAS: DRY-110 LBS. WET 110 LBS.
				ADDITION AND REVISION FOR COLOR UPDATE

DRAWN	DAJ	TITLE FABRIC-WOVEN SEATING QUALITY	DRAWING NUMBER 48-25408
APPRV	DAJ		
DATE	11/20/98	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

2.0 SPECIFIC REQUIREMENTS:

REQUIREMENT	PLAIN SPECIFICATION	PATTERN SPECIFICATION
PILE YARN	2/250/96 SD POLYESTER	2/250/96 SD POLYESTER 3/150/36 SD BLACK POLYESTER
WARP YARN BACKING	3/150/34 N POLYESTER	3/150/34 N POLYESTER
FILLING YARN-BACKING	8/100 N POLYESTER	8/100 N POLYESTER
COURSES: ENDS/INCH	34 PPI	36 PPI
WALES/INCH	21 PPI	22 PPI
PILE TUFTS/SQ INCH	N/A	N/A
FINISHED WT: OZS/SQ YD	14 OZ	14 OZ
BACK COATING TYPE:	SPRAY COAT	SPRAY COAT
FINISHED WIDTH:	54"	54"

SEAM STRENGTH	RESIST SLIPPAGE OF ANY SINGLE THREAD-NO FRACTURES AT SEW LINE	FORD BN 119-01
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE	ASTM D-3884
COLORFASTNESS (CROCK)	DRY (4) - WET (3)	AATCC TEST #8
COLORFASTNESS (FADE)	80 HOURS FDA-R NO OFF TONE FADE	AATCC TEST #16A
BLEED & PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR COLOR CHANGE	AATCC TEST #15
TENSILE STRENGTH(MIN)	DRY-110 LBS. WET-110 LBS.	ASTM D5034
TEAR STRENGTH (MIN)	WARP: 12 LBS. FILL: 12 LBS.	ASTM D5587
FLAMMABILITY RESISTANCE	MAX. BURN RATE 4" MIN.	FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/13/99	SMC	INITIAL RELEASE
				WAS: ASTM D-1683 IS: FORD BN 119-01
				WAS: DRY-150 LBS. WET-150 LBS.
				IS: DRY-110 LBS. WET-110 LBS.
				ADDITION AND REVISION FOR COLOR UPDATE

DRAWN	GJB	TITLE FABRIC-KNIT POLYESTOR SEATING QUALITY	DRAWING NUMBER 48-25409
APPRV	KMM		
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

SCOPE: THIS SPECIFICATION IDENTIFIES A KNIT POLYESTER FABRIC.

APPLICATION: TRIM AND SEATING QUALITY - FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SEAT CUSHIONS AND BACKS AND WALL PANELS.

SPECIFICATION NUMBERS:

SEATING AND TRIM QUALITY.

COLOR	TYPE	MANUFACTURERS NO. ABSECON MILLS	FREIGHTLINER PART NUMBER
GALAXY BLUE	PLAIN	768T	48-25409-000
MYSTIC GRAY	PLAIN	768T	48-25409-001
RED STARLIGHT	PLAIN	768T	48-25409-002
CHAMPAGNE MIST	PLAIN	768T	48-25409-003
GALAXY BLUE	PATTERN	768T	48-25409-004
MYSTIC GRAY	PATTERN	768T	48-25409-005
RED STARLIGHT	PATTERN	768T	48-25409-006
CHAMPAGNE MIST	PATTERN	768T	48-25409-007

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE FABRIC-KNIT POLYESTER SEATING QUALITY	DRAWING NUMBER 48-25409
APPRV	KMM		
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

ENGINEERING REQUIREMENTS

1.0 GENERAL REQUIREMENTS

DESCRIPTION

THIS SPECIFICATION QUALIFIES KNIT TYPE FABRICS THAT ARE SUITABLE FOR USE AS TRUCK SEAT UPHOLSTERY AND/OR INTERIOR TRIM. IT ALSO DESCRIBES THE GENERAL REQUIREMENTS FOR FABRIC PROPERTIES, IDENTIFICATION AND QUALITY.

DYE METHOD

UNLESS OTHERWISE SPECIFIED, FABRIC WILL BE PIECE DYED.

ALIGNMENT: (BOW AND BIAS)

THE DEGREE OF BOW AND BIAS IN THE FILLING DIRECTION SHALL NOT EXCEED 1/2 INCH FROM SELVAGE TO CENTER, ABOVE OR BELOW THE HORIZONTAL LINE, OR A TOTAL OF ONE INCH FROM SELVAGE TO SELVAGE ABOVE OR BELOW THE HORIZONTAL COMBINED. THIS REQM'T DOES NOT APPLY TO UNBACKED WOVEN MATERIAL.

SEAM STRENGTH: FORD BN 119-01

THE JOINING SEAM SHALL RESIST SLIPPAGE OF ANY YARN OR THREAD. THERE SHALL BE NO FRACTURES AT THE SEW LINE IN ANY MATERIAL. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED MATERIAL.

SEAM: JASO M-403 6-7

ABRASION: ASTM D3884

AFTER 1000 CYCLES UNDER 250 GRAM LOAD USING CS-17 ABRASION WHEELS THER SHALL BE NO APPRECIABLE COLOR CHANGE OF THE ABRAIDED SURFACE AND NO VISIBLE YARN RUPTURES

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	FABRIC-KNIT POLYESTER SEATING QUALITY	48-25409	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. -
CATIA ORIGINAL				

GENERAL REQUIREMENTS (CONT'D)

COLORFASTNESS (CROCKING): AATCC TEST METHOD 8

A CROCKING TEST PERFORMED WET AND DRY SHALL SHOW NO APPRECIABLE STAINING OF THE CONTACT FABRIC AND HAVE A MINIMUM AATC RATING OF FOUR (4) DRY AND THREE (3) WET WHEN COMPARED TO THE AATCC COLOR TRANSFERENCE EVALUATION CHART.

COLORFASTNESS (FADE:AATCC TEST METHOD 16A

THERE SHALL BE NO OFF TONE COLOR ALTERATION AFTER EXPOSURE TO 80 HOUR CARBON ARC FADEOMETER TEST.

BLEEDING AND PERSPIRATION : AATCC TEST METHOD 15

THE CONTACT FABRIC SHALL REMAIN VIRTUALLY UNSTAINED AND TEST SAMPLE SHALL SHOW NO APPARENT CHANGE IN COLOR.

TENSILE STRENGTH (WET AND DRY): ASTM D5034

MINIMUM REQUIREMENTS TO BE DETERMINED BY FABRIC SELECTED.

TEAR STRENGTH: ASTM 02262

MINIMUM REQUIREMENTS TO BE DETERMINED BY FABRIC SELECTED.

FLAMMABILITY REQUIREMENT: FMVSS-302

MATERIAL SUPPLIED TO THIS SPECIFICATION SHALL CONFORM TO AND BE CERTIFIED BY THE FABRIC SUPPLIER TO MEET THE REQUIREMENTS OF THE FEDERAL MOTOR VEHICLE SAFETY STANDARD•302..... FLAMMABILITY OF INTERIOR MATERIALS.

IDENTIFICATION

THE BACK OF FABRIC SHALL REFLECT MANUFACTURERS INITIALS WITH THE MONTH AND YEAR OF FABRICATION EQUALLY SPACED A MINIMUM OF (5) TIMES ACROSS THE WIDTH AND LINEAR SPACING OF NOT MORE THAN TWELVE (12) INCHES.

DIELECTRIC BOND: GM 9184P (OR EQUIVALENT)

THERE SHALL BE NO LIFTING IN THE DIE LINES AFTER 4 HOURS OF EXPOSURE AT 85°C.

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE FABRIC-KNIT POLYESTER SEATING QUALITY	DRAWING NUMBER 48-25409
APPRV	GJB		
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4 / CHG. LTR. -
CATIA ORIGINAL			

2.0 SPECIFIC REQUIREMENTS:

REQUIREMENT	SPECIFICATION	TEST METHOD
PILE YARN	CO-MINGLED 150/48/33 FLAT TEXTURED POLY	--------
WARP YARN BACKING	100% POLYESTER	--------
FILLING YARN-BACKING	100% POLYESTER	--------
ENDS/INCH	88	--------
PICKS/INCH	22	--------
PILE TUFTS/SQ INCH	N/A	--------
FINISHED WT: OZS/SQ YD	13.7 OZ ·5%	ASTM D 3776
BACK COATING TYPE:	SPRAY COAT	--------
FINISHED WIDTH:	54"	
SEAM STRENGTH	RESIST SLIPPAGE OF ANY SINGLE THREAD-NO FRACTURES AT SEW LINE	FORD BN 119-01
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE	ASTM D-3884
COLORFASTNESS (CROCK)	DRY (5) - WET (5)	AATCC TEST #8
COLORFASTNESS (FADE)	80 HOURS FDA-R NO OFF TONE FADE	AATCC TEST #16A
BLEED & PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR COLOR CHANGE	AATCC TEST #15
TENSILE STRENGTH(MIN)	WARP: 373 LBS. WET: 185 LBS.	ASTM D5034
TEAR STRENGTH (MIN)	WARP: 46.5 LBS. FILL: 25.4 LBS.	ASTM D2262
FLAMMABILITY RESISTANCE	MAX. BURN RATE 4" MIN.	FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	FABRIC-VINYL COATED 22.25 OZ PER SQUARE YARD	48-25410	
DATE	08/23/99			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES THE REQUIREMENTS FOR VINYL COATED FABRICS LAMINATED TO A TEXTURIZED POLYESTER FABRIC.

APPLICATION: TRIM QUALITY - FOR LIGHT SERVICE SUCH AS COVERINGS FOR BACK PANELS, SUN VISORS, SLEEPER CURTAINS OR OTHER LIGHT SERVICE COMPONENTS.

SPECIFICATION NUMBERS:

COLOR	PATTERN TYPE	MANUFACTURERS NO. TEXILEATHER	FREIGHTLINER PART NUMBER
SAHARA	PLAIN	768T	48-25410-000
GRAPHITE	PLAIN	768T	48-25410-001
RUSSET TAN	PLAIN	768T	48-25410-002
MAPLE RED	PLAIN	768T	48-25410-003
SILVERSLATE	PLAIN	768T	48-25410-004

* PRIMARY MATERIAL, ORDER BY PATTERN & COLOR

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	FABRIC-VINYL COATED 22.25 OZ PER SQUARE YARD	48-25410	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. -
CATIA ORIGINAL				

ENGINEERING REQUIREMENTS FOR THE FOLLOWING SPECIFICATION NUMBERS:

1.0 GENERAL REQUIREMENTS

1.1 THE KNIT FABRIC SHALL BE MADE OF SUITABLE MATERIAL TO SATISFY THE REQUIREMENTS IN SECTION 2.0

1.2 THE COVERING SHALL BE PLASTICIZED AND PIGMENTED, EXPANDED POLYVINYL CHLORIDE RESIN OR COPOLYMERS THEREOF, SO AS TO BE OF THE PROPER AND UNIFORM GAGE, FLEXIBLE, FREE FROM TACKINESS AND SUITABLE HAND.

1.3 THE COLOR, GRAIN AND FINISH SHALL MATCH THE MASTER SAMPLE.

2.0 SPECIFIC REQUIREMENTS

PROPERTY	TEST METHOD	REQUIREMENTS
WEIGHT, (OZ, SQ/YD)	ASTM D751	19 OZ
BREAKING STRENGTH N, MINIMUM WARP/FILL	ASTM D751 GRAB METHOD	445/445
TEAR STRENGTH N, MINIMUM WARP/FILL	FTLM BN 122-01 TRAPEZOID METHOD	100/100
SEAM STRENGTH, N WARP/FILL	FTLM BN 119-01	445/445
STRETCH, %, MINIMUM WARP/FILL	SAE J855	12/30

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	KMM	FABRIC-VINYL COATED 22.25 OZ PER SQUARE YARD	48-25410	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. -
CATIA ORIGINAL				

PROPERTY	TEST METHOD	REQUIREMENTS
SET, %, MINIMUM WARP/FILL	SAE J855	0-20/0-20
COATING ADHESION LBS., MINIMUM WARP/FILL	ISO 2411 STD METHOD	35/35
FLAMMABILITY, MAXIMUM FMVSS 302	SAE J369	100 mm/min
COLD CRACKING RESISTANCE	SAE J323	10° F
BLOCKING, MAXIMUM RATING	CFFA-4	2
CROCKING RESISTANCE WET & DRY	CFFA-7	GOOD
CROCKING RESISTANCE	FLTM BN 113-03	NO DELAMINATION OR LOSS OF COATING FILM INTEGRITY.

NOTES:

1. ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
2. CFFA - CHEMICAL FABRICS AND FILM ASSOCIATION
3. SAE - SOCIETY OF AUTOMOTIVE ENGINEERS
4. FED STD - FEDERAL TEST METHOD STD. NO. 191A
5. NO VISIBLE LOSS OF COLOR OR GRAIN PATTERN IS ALLOWED
6. FLTM - FORD LABORATORY TEST METHOD.

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	GJB	TITLE	DRAWING NUMBER	
APPRV	GJB	FABRIC-VINYL COATED 22.25 OZ PER SQUARE YARD	48-25410	
DATE	08/23/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4	CHG. LTR. -
CATIA ORIGINAL				

3.0 APPROVED SOURCE

SUPPLIERS SHALL HAVE THEIR MATERIAL TESTED IN ACCORDANCE WITH THIS SPECIFICATION BY AN INDEPENDENT LABORATORY AND THE RESULT SUBMITTED TO FREIGHTLINER PURCHASING.

NO SHIPMENTS SHALL BE MADE BY A NEW SOURCE UNTIL THE PROPOSED MATERIAL HAS BEEN APPROVED BY FREIGHTLINER ENGINEERING.

CHG	JOB NO	DATE	BY	REVISION
-	P04977-13	08/23/99	GJB	INITIAL RELEASE

DRAWN	LFB	TITLE	DRAWING NUMBER	
APPRV	DAJ	FOAM-ACCOUSTICAL MYLAR FACED, WITH PSA BACKING	48-25411	
DATE	10/18/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 2	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A COMPOSITE SHEET OF FLEXIBLE OPEN CELL POLYETHER POLYURETHANE FOAM. WITH CONTROLLED PERMEABILITY, WITH FIRE RETARDANT ADDITIVIES, AND CHEMICALLY BONDED TO A THIN IMPERMEABLE FACING AND BACKING WITH PSA.

APPLICATION: SOUND ABSORPTION ON PLANE AND SIMPLY CURVED SURFACES.

SPECIFICATION NUMBERS:

T THICKNESS	FACING THICKNESS	BACKING THICKNESS	DENSITY	PERMEABILITY SPECIFICATION	FREIGHTLINER PART NUMBER
0.50	1 MIL	1 MIL	2.0 LBS/FT^3 PER ASTM D3574	SEE NOTE 6	48-25411-050
1.00					48-25411-100
2.00					48-25411-200

ENGINEERING NOTES:

1. CONSTRUCTION:

FOAM: TENSILE STRENGTH (FOAM ONLY): 16 PSI
ELONGATION (FOAM ONLY): 200%
PER ASTM D3574

BACKING: PRESSURE SENSITIVE ADHESIVE TO BE BONDED BY THE UNCURED URETHANE DURING FOAM MANUFACTURING PROCESS. THE FILM WILL BE ADHERED TO THE FOAM WITH AN ADHESIVELESS FOAM TEARING BOND.

FACING: ALUMINIZED POLYESTER FILM, TO BE BONDED TO ONE FACE BY THE UNCURED URETHANE DURING FOAM MANUFACTURING PROCESS. THE FILM WILL BE ADHERED TO THE FOAM WITH AN ADHESIVELESS FOAM TEARING BOND.

2. FLAMMABILITY:

TEST	RATING
UL 94	94 HB-F
DOT 302	PASS

CHG	JOB NO	DATE	BY	REVISION
-	P07633-11	10/18/99	LFB	INITIAL LOAD.

DRAWN	LFB	TITLE	DRAWING NUMBER	
APPRV	DAJ	FOAM-ACCOUSTICAL MYLAR FACED, WITH PSA BACKING	48-25411	
DATE	10/18/99			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 2	CHG. LTR. -

3. TEMPERATURE RANGE: -40°F TO 200°F
THE UPPER LIMIT OF 200°F IS A CONTINUOUS USE TEMPERATURE. THE PRODUCT IS SUITABLE FOR INTERMITTENT EXPOSURE TO TEMPERATURES UP TO 250°F. AT CONTINUOUS EXPOSURE TO 250°F. THE PRODUCT'S EFFECTIVE LIFE SPAN WILL BE SHORTENED. PRODUCT SHALL NOT EXPERIENCE DELAMINATION OR DEGRADATION AT THESE TEMPERATURE EXTREMES.

4. THERMAL CONDUCTIVITY (K FACTOR): 1.0"-.25 BTU/IN/HR FT^2°F
0.5"-.55 BTU/IN/HR FT^2°F

5. SOUND ABSORPTION: (TYPICAL VALUES)

R	0.5"	1.0"	2.0"
250 HZ	.08	.80	.62
500 HZ	.60	.61	.91
1000 HZ	.67	.73	.86
2000 HZ	.87	.71	.75
4000 HZ	.73	.69	.73
NRC	.55	.70	.80

TEST METHOD:
THE TEST METHOD CONFORMED EXPLICITLY WITH THE REQUIREMENTS OF THE ASTM STANDARD TEST METHOD FOR SOUND ABSORBTION AND SOUND ABSORBTION COEFFICIENTS BY THE REVERBERATION ROOM METHOD: ASTM C423-84a AND E795-83.

6. FLOW RESISTANCE: 1.0" THICK 4,000-13,000 MKS RAYLS/M
THE LATERAL OVERFOW RESISTIVITY SHALL BE MEASURED FROM A RING SHAPED SPECIMEN HAVING AN O.D. OF 100MM AND AN I.D. OF 30MM IN ACCORDANCE WITH ASTM-C-522-87 PAR. 5.1.4 AND 5.1.5.

CHG	JOB NO	DATE	BY	REVISION
-	P07633-11	10/18/99	LFB	INITIAL LOAD.

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC - VINYL COATED 16.5 OZ. PER LN. YARD	48-25414	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION COVERS THE REQUIREMENTS FOR VINYL COATED FABRICS.

APPLICATION: TRIM QUALITY -FOR LIGHT SERVICE SUCH AS COVERINGS FOR COVERINGS FOR BACK PANELS, SUN VISORS AND OTHER LIGHT SEVICE COMPONENTS.

SPECIFICATION NUMBERS:

PATTERN	COLOR	MANUFACTURERS NUMBER	FREIGHTLINER PART NUMBER
BURLAP PLUSHTEX (WALL)	BONNEVILLE BEIGE	ATHOL CORP. 3017-FR	48-25414-100
	PACIFIC BLUE	ATHOL CORP. 3017-FR	48-25414-200
	HARBOR GRAY	ATHOL CORP. 3017-FR	48-25414-300
	CASCADE CRIMSON	ATHOL CORP. 3017-FR	48-25414-400
SPECKLE PLUSHTEX (ROOF)	BONNEVILLE BEIGE	ATHOL CORP. 3017-FR	48-25414-101
	PACIFIC BLUE	ATHOL CORP. 3017-FR	48-25414-201
	HARBOR GRAY	ATHOL CORP. 3017-FR	48-25414-301
	CASCADE CRIMSON	ATHOL CORP. 3017-FR	48-25414-401

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CHG	JOB NO	DATE	BY	REVISION
-	P07908-21	10/04/99	PTA	INITIAL RELEASE

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC - VINYL COATED 16.5 OZ PER LN YARD	48-25414	
DATE	10/04/99			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3	CHG. LTR. -

ENGINEERING REQUIREMENTS FOR THE FOLLOWING SPECIFICATION NUMBERS

1.0 GENERAL REQUIREMENTS

1.1 THE NON-WOVEN FABRIC SHALL BE MADE OF SUITABLE MAT'L SUITABLE TO SATISFY THE REQUIREMENTS IN SECTION 2.0

1.2 THE COVERING SHALL BE PLASTICIZED AND PIGMENTED. EXTRUDED POLYVINYL CHLORIDE RESIN OR COPOLYMERS THEREOF, SO AS TO BE OF THE PROPER AND UNIFORM GAGE, FLEXIBLE, FREE FROM TACKINESS AND SUITABLE HAND.

1.3 THE COLOR GRAIN AND FINISH SHALL MATCH THE APPROVED MASTER SAMPLE.

2.0 SPECIFIC REQUIREMENTS

PROPERTY	TEST METHOD	REQUIREMENTS
TOTAL WEIGHT, (OZ), SQ/YD)	ASTM D751	16.50 ±8%
SUBSTRATE WEIGHT, (OZ), SQ/YD)	ASTM D751	3.2
THICKNESS, TOTAL INCH	SAE J882	0.045/0.075"
THICKNESS, SKIN		.014"
BREAKING STRENGTH LBS., MINIMUM WARP/FILL	ASTM D5034	90/70 LBS.
TEAR STRENGTH LBS., MINIMUM WARP/FILL	ASTM D2261 TOUNGE METHOD	9/8 LBS.
SEAM STRENGTH, LBS. WARP/FILL	GM 9129P	NO SEAM FAILURE
STRETCH, % MINIMUM WARP/FILL	SAE J855	BOTH DIRECTIONS 20/50 %

CHG	JOB NO	DATE	BY	REVISION
-	P07908-21	10/04/99	PTA	INITIAL RELEASE

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC - VINYL COATED 22.25 OZ. PER LN YARD	48-25414	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3	CHG. LTR. -
CATIA ORIGINAL				

PROPERTY	TEST METHOD	REQUIREMENTS
SET, % MINIMUM WARP/FILL	SAE J855	30/25% MAX.
COATING ADHESION LBS. MINIMUM WARP/FILL	GM 9160P	4.5/4.5
FLAMMABILITY (6)	FMVSS302 GM 9070P	PASS(SE) 2"/ MIN.
ABRASION RESISTANCE MAX. WT. LOSS (500 REV./500G./H18	ASTM D3884 CS/10 WHEEL 1000 GRAM LOAD	500 CYCLES SEE NOTE 5

NOTES

1. ASTM=AMERICAN SOCIETY FOR TESTING AND MATERIALS
2. CFFA= CHEMICAL FABRICS AND FILM ASSOCIATION
3. SAE= SOCIETY OF AUTOMOTIVE ENGINEERS
4. FED STD= FEDERAL TEST METHOD STD. NO. 191A
5. NO VISIBLE LOSS OF COLOR OR GRAIN PATTERN IS ALLOWED.

(6) THIS MATERIAL MUST ALSO PASS FMVSS NO. 302, FLAMMABLITY OF INTERIOR MATERIALS.

3.0 APPROVED SOURCE

SUPPLIERS SHALL HAVE THEIR MATERIAL TESTED IN ACCORDANCE WITH THIS SPECIFICATION BY AN INDEPENDENT LABORATORY AND THE RESULTS SUBMITTED TO FREIGHTLINER PURCHASING.
NO SHIPMENTS SHALL BE MADE BY A NEW SOURCE UNTIL THE MATERIAL HAS BEEN APPROVED BY FREIGHTLINER ENGINEERING.

CHG	JOB NO	DATE	BY	REVISION
-	P07908-21	10/04/99	PTA	INITIAL RELEASE

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC POLYESTER,-KNIT TRIM QUALITY	48-25415	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A POLYESTER KNIT FABRIC.

APPLICATION: TRIM QUALITY - FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR WALL PANELS.

SPECIFICATION NUMBERS:

TRIM QUALITY.

COLOR	GUILFORD MILLS		REMARKS	FREIGHTLINER PART NUMBER
	PATTERN	COLOR		
BONNEVILLE BEIGE	BENSON 284-U	KJ49	48" WIDTH	48-25415-100
CASCADE CRIMSON	BENSON 284-U	KJ44	48" WIDTH	48-25415-200
PACIFIC BLUE	BENSON 284-U	KJ66	48" WIDTH	48-25415-300
HARBOR GRAY	BENSON 284-U	KJ48	48" WIDTH	48-25415-400

CHG	JOB NO	DATE	BY	REVISION
-	P07908-21	10/04/99	PTA	INITIAL RELEASE

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC POLYESTER, -KNIT TRIM QUALITY	48-25415	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. -
CATIA ORIGINAL				

ENGINEERING REQUIREMENTS

1.0 GENERAL REQUIREMENTS

DESCRIPTION

THIS SPECIFICATION QUALIFIES KNIT TYPE FABRICS THAT ARE SUITABLE FOR USE AS TRUCK SEAT UPHOLSTERY AND/OR INTERIOR TRIM. IT ALSO DESCRIBES THE GENERAL REQUIREMENTS FOR FABRIC PROPERTIES, IDENTIFICATION AND QUALITY.

DYE METHOD

UNLESS OTHERWISE SPECIFIED, FABRIC WILL BE PIECED DYED.

ALIGNMENT: (BOW AND BIAS)

THE DEGREE OF BOW AND BIAS IN THE FILLING DIRECTION SHALL NOT EXCEED 1/2 INCH FROM SELVAGE TO CENTER, ABOVE OR BELOW THE HORIZONTAL LINE, OR A TOTAL OF ONE INCH FROM SELVAGE TO SELVAGE ABOVE OR BELOW THE HORIZONTAL COMBINED. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED WOVEN MATERIAL.

SEAM STRENGTH: FORD BN 119-01

THE JOINING SEAM SHALL RESIST SLIPPAGE OF ANY YARN OR THREAD. THERE SHALL BE NO FRACTURES AT THE SEW LINE IN ANY MATERIAL. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED MATERIAL.

ABRASION: ASTM-D-3884

AFTER 500 CYCLES UNDER 250 GRAM LOAD USING CS-17 ABRASION WHEELS THER SHALL BE NO APPRECIABLE COLOR CHANGE OF THE ABRAIDED SURFACE AND NO VISIBLE YARN RUPTURES

CHG	JOB NO	DATE	BY	REVISION
-	P07908-21	10/04/99	PTA	INITIAL RELEASE

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC POLYESTER,-KNIT TRIM QUALITY	48-25415	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. -
CATIA ORIGINAL				

GENERAL REQUIREMENTS (CONTINUED)

COLORFASTNESS (CROCK): AATCC TEST METHOD 15

A CROCKING TEST PERFORMED WET AND DRY SHALL SHOW NO APPRECIABLE STAINING OF THE CONTACT FABRIC AND HAVE A MINIMUM AATC RATING OF FOUR (5) DRY AND THREE (5) WET WHEN COMPARED TO THE AATCC COLOR TRANSFERENCE EVALUATION CHART.

COLORFASTNESS (FADE): AATCC TEST METHOD 16A

THERE SHALL BE NO OFF TONE COLOR ALTERATION AFTER EXPOSURE TO 100 HOUR CARBON ARC FADEOMETER TEST.

BLEEDING AND PERSPIRATION: AATCC TEST METHOD 16A

THE CONTACT FABRIC SHALL REMAIN VIRTUALLY UNSTAINED AND TEST SAMPLE SHALL SHOW NO APPARENT CHANGE IN COLOR.

TENSILE STRENGTH: ASTM D5034

MINIMUM OF 100 X 100 FOR WARP AND FILL.

TEAR STRENGTH: ASTM D5587.

MINIMUM OF 12 X 12 FOR WARP AND FILL.

FLAMMABILITY REQUIREMENT: FMVSS-302

MATERIAL SUPPLIED TO THIS SPECIFICATION SHALL CONFORM TO AND BE CERTIFIED BY THE FABRIC SUPPLIER TO MEET THE REQUIREMENTS OF THE FEDERAL MOTOR VEHICLE SAFETY STANDARD#302..... FLAMMABILITY OF INTERIOR MATERIALS.

IDENTIFICATION

THE FABRIC ROLL SHALL REFLECT MANUFACTURERS LABEL WITH THE MONTH, YEAR OF FABRICATION, DYE LOT NUMBER, AND MATERIAL NAME/PATTERN.

CHG	JOB NO	DATE	BY	REVISION
-	P07908-21	10/04/99	PTA	INITIAL RELEASE

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC POLYESTER, -KNIT TRIM QUALITY	48-25415	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4	CHG. LTR. -
CATIA ORIGINAL				

2.0 SPECIFIC REQUIREMENTS:

REQUIREMENT	SPECIFICATION	TEST METHOD
PILE YARN	100% SEMI-DULL POLYESTER 70 D.	--------
YARN-BACKING	100% POLYESTER 70 D.	--------
COURCES/INCH:	58/60	--------
WALES: PICKS/INCH	35	--------
PILE TUFTS/SQ INCH	2030	--------
FINISHED WT: OZS/SQ YD	7.5 ±5%	--------
BACK COATING TYPE (FLEXWEAVE)		
SEAM STRENGTH	RESIST SLIPPAGE OF ANY SINGLE THREAD-NO FRACTURES AT SEW LINE	FORD BN119-01 70 LBS.
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE	ASTM-D-3884
COLORFASTNESS (CROCK)	DRY (5) - WET (3)	AATCC TEST 15
COLORFASTNESS (FADE)	100 HOURS FDA-R NO OFF TONE FADE	AATCC TEST 16A
BLEED & PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR COLOR CHANGE	AATCC TEST 15
TENSILE STRENGTH(MIN)	69 LBS.	ASTM D5034
TEAR STRENGTH (MIN) TRAP TEAR	WARP: 12 LBS. FILL: 12 LBS.	ASTM D5587
FLAMMABILITY RESISTANCE	MAX. BURN RATE 4" MIN.	FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	P07908-21	10/04/99	PTA	INITIAL RELEASE

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC - VINYL COATED 21 OZ. PER LN. YARD	48-25418	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION COVERS THE REQUIREMENTS FOR VINYL COATED FABRICS.

APPLICATION: SEATING QUALITY -FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SEAT CUSHIONS AND BACKS, ENGINE TUNNEL TRIM OR OTHER PARTS WHICH MAY BE SUBJECT TO SEVERE SERVICE.

SPECIFICATION NUMBERS:

PATTERN	COLOR	MANUFACTURERS NUMBER	FREIGHTLINER PART NUMBER
BURLAP (INSERT)	BONNEVILLE BEIGE	ATHOL CORP. 9020-	48-25418-100
	PACIFIC BLUE	ATHOL CORP. 9020-	48-25418-200
	HARBOR GRAY	ATHOL CORP. 9020-	48-25418-300
	CASCADE RED	ATHOL CORP. 9020-	48-25418-400
SPECKLE (TRIM)	BONNEVILLE BEIGE	ATHOL CORP. 9020-	48-25418-101
	PACIFIC BLUE	ATHOL CORP. 9020-	48-25418-201
	HARBOR GRAY	ATHOL CORP. 9020-	48-25418-301
	CASCADE RED	ATHOL CORP. 9020-	48-25418-401

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CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	COLORS REVISED; PACIFIC BLUE WAS CASCADE RED.
				HARBOR GRAY WAS PACIFIC BLUE. CASCADE RED WAS
				HARBOR GRAY.

DRAWN	NLL	TITLE FABRIC - VINYL COATED 21 OZ PER LN YARD	DRAWING NUMBER 48-25418
APPRV	DAJ		
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3 / CHG. LTR. A
CATIA ORIGINAL			

ENGINEERING REQUIREMENTS FOR THE FOLLOWING SPECIFICATION NUMBERS

1.0 GENERAL REQUIREMENTS

1.1 THE NON-WOVEN FABRIC SHALL BE MADE OF SUITABLE MAT'L SUITABLE TO SATISFY THE REQUIREMENTS IN SECTION 2.0

1.2 THE COVERING SHALL BE PLASTICIZED AND PIGMENTED. EXTRUDED POLYVINYL CHLORIDE RESIN OR COPOLYMERS THEREOF, SO AS TO BE OF THE PROPER AND UNIFORM GAGE, FLEXIBLE, FREE FROM TACKINESS AND SUITABLE HAND.

1.3 THE COLOR GRAIN AND FINISH SHALL MATCH THE APPROVED MASTER SAMPLE.

2.0 SPECIFIC REQUIREMENTS

PROPERTY	TEST METHOD	REQUIREMENTS
WEIGHT, (OZ), SQ/YD)	ASTM D751	20.75 $\pm$ 10%
THICKNESS, TOTAL INCH	SAE J882	0.045/0.075"
THICKNESS, SKIN		.015"
BREAKING STRENGTH LBS., MINIMUM WARP/FILL	ASTM D5034	100/100 LBS.
TEAR STRENGTH LBS., MINIMUM WARP/FILL	TRAPEZOID METHOD	30/30 LBS.
SEAM STRENGTH, LBS. WARP/FILL	GM 9129P	NO SEAM FAILURE
STRETCH, % MINIMUM WARP/FILL	SAE J855	BOTH DIRECTIONS 20/37 %

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC - VINYL COATED 21 OZ. PER LN YARD	48-25418	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3	CHG. LTR. A
CATIA ORIGINAL				

PROPERTY	TEST METHOD	REQUIREMENTS
SET, % MINIMUM WARP/FILL	SAE J855	5/5% MAX.
COATING ADHESION LBS. MINIMUM WARP/FILL	GM 9160P	5.0/5.0
FLAMMABILITY (6)	FMVSS302 GM 9070P	PASS(SE) 2"/ MIN.
COLD CRACKING RESISTANCE	GM 9140P	-30 DEG F./ 4 HRS. NO CRACKING
BLOCKING, MAXIMUM RATING	SAE J912	3KPA/80 DEG. C NO BLOCKING
CROCKING RESISTANCE (WET & DRY)	AATCC 8	NO STAIN AFTER 10 STROKES
ABRASION RESISTANCE MAX. WT. LOSS (500 REV./500G./H18	ASTM D3884 CS/10 WHEEL 1000 GRAM LOAD	500 CYCLES SEE NOTE 5

NOTES

1. ASTM=AMERICAN SOCIETY FOR TESTING AND MATERIALS
2. CFFA= CHEMICAL FABRICS AND FILM ASSOCIATION
3. SAE= SOCIETY OF AUTOMOTIVE ENGINEERS
4. FED STD= FEDERAL TEST METHOD STD. NO. 191A
5. NO VISIBLE LOSS OF COLOR OR GRAIN PATTERN IS ALLOWED.

(6) THIS MATERIAL MUST ALSO PASS FMVSS NO. 302, FLAMMABLITY OF INTERIOR MATERIALS.

3.0 APPROVED SOURCE

SUPPLIERS SHALL HAVE THEIR MATERIAL TESTED IN ACCORDANCE WITH THIS SPECIFICATION BY AN INDEPENDENT LABORATORY AND THE RESULTS SUBMITTED TO FREIGHTLINER PURCHASING.
NO SHIPMENTS SHALL BE MADE BY A NEW SOURCE UNTIL THE MATERIAL HAS BEEN APPROVED BY FREIGHTLINER ENGINEERING.

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-WOVEN SEATING QUALITY	48-25419	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A WOVEN FABRIC.

APPLICATION: TRIM AND SEATING QUALITY - FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SEAT CUSHIONS AND BACKS AND WALL PANELS.

SPECIFICATION NUMBERS:

SEATING AND TRIM QUALITY.

COLOR	MANUFACTURERS NO. GUILFORD MILLS	COLOR NUMBER	FREIGHTLINER PART NUMBER
BONNEVILLE BEIGE	LINWOOD WVX-86	KJ24	48-25419-100
PACIFIC BLUE	LINWOOD WVX-86	KJ32	48-25419-200
HARBOR GRAY	LINWOOD WVX-86	KJ34	48-25419-300
CASCADE RED	LINWOOD WVX-86	KJ45	48-25419-400

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	COLORS REVISED; PACIFIC BLUE WAS CASCADE RED.
				HARBOR GRAY WAS PACIFIC BLUE. CASCADE RED WAS
				HARBOR GRAY.

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-WOVEN SEATING QUALITY	48-25419	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. A
CATIA ORIGINAL				

ENGINEERING REQUIREMENTS

1.0 GENERAL REQUIREMENTS

DESCRIPTION

THIS SPECIFICATION QUALIFIES WOVEN TYPE FABRICS THAT ARE SUITABLE FOR USE AS TRUCK SEAT UPHOLSTERY AND/OR INTERIOR TRIM. IT ALSO DESCRIBES THE GENERAL REQUIREMENTS FOR FABRIC PROPERTIES, IDENTIFICATION AND QUALITY.

DYE METHOD

UNLESS OTHERWISE SPECIFIED, FABRIC WILL BE PIECE DYED.

ALIGNMENT: (BOW AND BIAS)

THE DEGREE OF BOW AND BIAS IN THE FILLING DIRECTION SHALL NOT EXCEED 1/2 INCH FROM SELVAGE TO CENTER, ABOVE OR BELOW THE HORIZONTAL LINE, OR A TOTAL OF ONE INCH FROM SELVAGE TO SELVAGE ABOVE OR BELOW THE HORIZONTAL COMBINED. THIS REQM'T DOES NOT APPLY TO UNBACKED WOVEN MATERIAL.

SEAM STRENGTH: FORD BN 119-01

THE JOINING SEAM SHALL RESIST SLIPPAGE OF ANY YARN OR THREAD. THERE SHALL BE NO FRACTURES AT THE SEW LINE IN ANY MATERIAL. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED MATERIAL.

SEAM SLIPPAGE: GM 9129P

THE JOINING SEAM SHALL RESIST SLIPPAGE OF NOT MORE THAN 2.5 MM.

ABRASION: ASTM D3884

AFTER 500 CYCLES UNDER 250 GRAM LOAD USING CS-17 ABRASION WHEELS THER SHALL BE NO APPRECIABLE COLOR CHANGE OF THE ABRAIDED SURFACE AND NO VISIBLE YARN RUPTURES

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-WOVEN SEATING QUALITY	48-25419	
DATE	08/09/99			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. A

GENERAL REQUIREMENTS (CONT'D)

COLORFASTNESS (CROCKING): AATCC TEST METHOD 8

A CROCKING TEST PERFORMED WET AND DRY SHALL SHOW NO APPRECIABLE STAINING OF THE CONTACT FABRIC AND HAVE A MINIMUM AATC RATING OF FOUR (4) DRY AND THREE (3) WET WHEN COMPARED TO THE AATCC COLOR TRANSFERENCE EVALUATION CHART.

COLORFASTNESS (FADE:AATCC TEST METHOD 16A

THERE SHALL BE NO OFF TONE COLOR ALTERATION AFTER EXPOSURE TO 80 HOUR CARBON ARC FADEOMETER TEST.

BLEEDING AND PERSPIRATION : AATCC TEST METHOD 15

THE CONTACT FABRIC SHALL REMAIN VIRTUALLY UNSTAINED AND TEST SAMPLE SHALL SHOW NO APPARENT CHANGE IN COLOR.

TENSILE STRENGTH (WET AND DRY): ASTM D5034

MINIMUM REQUIREMENTS TO BE DETERMINED BY FABRIC SELECTED.

FLAMMABILITY REQUIREMENT: FMVSS-302

MATERIAL SUPPLIED TO THIS SPECIFICATION SHALL CONFORM TO AND BE CERTIFIED BY THE FABRIC SUPPLIER TO MEET THE REQUIREMENTS OF THE FEDERAL MOTOR VEHICLE SAFETY STANDARD#302..... FLAMMABILITY OF INTERIOR MATERIALS.

IDENTIFICATION

THE BACK OF FABRIC SHALL REFLECT MANUFACTURERS INITIALS WITH THE MONTH AND YEAR OF FABRICATION EQUALLY SPACED A MINIMUM OF (5) TIMES ACROSS THE WIDTH AND LINEAR SPACING OF NOT MORE THAN TWELVE (12) INCHES.

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

DRAWN	NLL	TITLE FABRIC-WOVEN SEATING QUALITY	DRAWING NUMBER 48-25419
APPRV	DAJ		
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4 / CHG. LTR. A
CATIA ORIGINAL			

2.0 SPECIFIC REQUIREMENTS:

REQUIREMENT	SPECIFICATION	TEST METHOD
PILE YARN	100% SEMI-DULL POLYESTER	--------
WARP YARN BACKING	100% POLYESTER	--------
FILLING YARN-BACKING	100% POLYESTER	--------
WRAP: ENDS/INCH	84 +5/-5%	--------
FILLING: PICKS/INCH	34 +5/-5%	--------
PILE: ROWS/INCH	21	--------
FINISHED WT: OZS/SQ YD	14.08 OZ.	--------
BACK COATING TYPE:	SPRAY COAT	--------
FINISHED WIDTH:	54"	
SEAM STRENGTH:	70 LBS.	FORD BN-110-1
SEAM SLIPPAGE:	LESS THAN 2.5mm	GM 9129 P
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE	ASTM D-3884
COLORFASTNESS (CROCK)	DRY (4) - WET (3)	AATCC TEST #8
COLORFASTNESS (FADE)	100 HOURS FDA-R NO OFF TONE FADE	AATCC TEST #16A
BLEED & PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR CHANGE	AATCC TEST #15
TENSILE STRENGTH(MIN)	DRY-110 LBS. WET-110 LBS.	ASTM D5034
TEAR STRENGTH (MIN)	WARP: 10 LBS. FILL: 10 LBS.	ASTM D5587
FLAMMABILITY RESISTANCE	MAX. BURN RATE 4" MIN.	FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

48-25420 , A , ,CARPET

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	CARPET BCF, 12.5 OUNCE	48-25420	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION DESCRIBES CAB INTERIOR CARPET.

APPLICATION: THIS STANDARD REPRESENTS THE REQUIREMENTS FOR A 100% BCF POLYPROPYLENE CUT PILE CARPET THAT IS SUITABLE FOR USE AS AUTOMOTIVE TRIM, AND OTHER APPLICATIONS AS APPROVED.

SPECIFICATION NUMBERS:

COLOR	COLOR NUMBER	FREIGHTLINER PART NUMBER
BONNEVILLE BEIGE	XXX	48-25420-100
PACIFIC BLUE	XXX	48-25420-200
HARBOR GRAY	XXX	48-25420-300
CASCADE RED	XXX	48-25420-400

GENERAL REQUIREMENTS: POLYPROPYLENE CONSTRUCTION
PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY. (MOLDED OR OTHERWISE FRABRICATED)

CONSTRUCTION REQUIREMENTS:

PILE YARN:

YARN TYPE.....100% SOLUTION DYED BCF POLYPROPYLENE
YARN SIZE.....3000 DENIER BCF
YARN WEIGHT PER SQ YD...12.5 OUNCE

TUFTING FABRIC:

TYPE.....WOVEN POLYPROPYLENE
WEIGHT...3 OZ. MINIMUM

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CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	COLORS REVISED; PACIFIC BLUE WAS CASCADE RED,
				HARBOR GRAY WAS PACIFIC BLUE, CASCADE RED WAS
				HARBOR GRAY.

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	CARPET BCF, 12.5 OUNCE	48-25420	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3	CHG. LTR. A
CATIA ORIGINAL				

BACKCOATING TYPE.....18.4 OUNCE LATEX
DYE METHOD..... .MELT DYE OR SOLUTION DYED YARN.

FINISHED CARPET
- FINISHED WIDTH.....54 INCHES
- NEEDLE GUAGE.....3/16 INCH
- STICHES PER INCH.....6 +1%
- FINISHED ROW COUNT.....5.3 +1%
- HEIGHT OF PILE (MIN)....5/16 INCH.

FLAMMABILITY....MEETS OR EXCEEDS FMVSS #302.

TYPICAL PROPERITIES:

AVERAGE TENSILE STRENGTH-ASTM D 3574.....LENGTH 133 LBS.
WIDTH 167 LBS.

AVERAGE TEAR STRENGTH-ASTM D 2261.....LENGTH 133 LBS.
WIDTH 167 LBS.

WEAR RESISTANCE-TABER ABRASION-ASTM D 3884 100 GRAM LOAD:
NUMBER OF CYCLES UNTIL A PORTION OF PRIMARY BACKING IS VISIBLE.....1600.

AVERAGE TUFT BIND-ASTM D 1335.....3.3 LBS.

SHRINKAGE:
- MD (WARP).....MAXIMUM 1.0%
- AMD (FILL).....MAXIMUM 1.0%

RESISTANCE TO CROCKING-AATCC 165:
- DRY.....MINIMUN 4
- WET.....MINIMUN 4

COLORFASTNESS TO WATER-AATCC 107:
MINIMUM 4

COLORFASTNESS TO LIGHT-AATCC 16:
MINIMUM RATING OF 4 ON AATCC OR ISO 105/1 PART2 GREY SCALE AFTER FOLLOWING HOURS OF EXPOSURE:
- 16A CARBON ARC: 400 HRS.
- 16E XENON ARC: 465 HRS.

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	CARPET BCF, 12.5 OUNCE	48-25420	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3	CHG. LTR. A
CATIA ORIGINAL				

FOLLOWING THE REQUIRED HOURS OF EXPOSURE, ANY SIGNIFICANT SHEDDING OF FACE YARN INDICATING FIBER DEGRADATION/EMBRITTLEMENT SHALL CONSTITUTE A FAILURE EVEN IF THE COLOR IS STILL SATISFACTORY.

METHODS OF TESTING:

TOTAL MASS.....ASTM D418 (SECTION 7)
(SPECIMEN SIZE 12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD)
(AVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED 2"/MIN. READ PEAK LOAD, AVERAGE OF 5 TESTS)

SHRINKAGE MAX.....SAE J883 (REMEASURE AFTER 24 HOURS AT STANDARD CONDITIONS)

WEAR RESISTANCE.....TABER ABRADER H-18 WHEEL, 1000 GRAM LOAD, 2000 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

RESISTANCE TO BLEED....CUSTOMER TEST:
#1 MULTIFIBER CLOTH- ACETATE COTTON-NYLON-SILK-VICOSE-WOOL DISH WITH MULTIFIBER CLOTH, CARPET FACE DOWN RUNNING OPPOSITE TO CLOTH, 5 GLASS PLATES ON TOP, 25CC WATER, SOAK FOR 15 MINUTES, SQUEEZE OUT EXCESS WATER, THEN PUT IN LARGER OVEN FOR 4 HOURS, LETTING THEM IN DISHES.

FADE RESISTANCE.....AATCC 16A, CARBON ARC

FLAMMABILITY.....FMVSS 302

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

48-25421 , - , CARPET

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	CARPET 22 OZ. NYLON	48-25421	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. -
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A CAB INTERIOR CARPET.

APPLICATION: A 87.5% BCF NYLON, 12.5% BCF POLYPROPYLENE CUT PILE THAT IS SUITABLE FOR USE AS AUTOMOTIVE TRIM, FLOOR COVERING AND OTHER APPLICATIONS AS APPROVED.

SPECIFICATION NUMBERS:

SEATING AND TRIM QUALITY.

COLOR	PATTERN AND/OR COLOR NO.		FREIGHTLINER PART NUMBER
BONNEVILLE BEIGE			48-25421-100
PACIFIC BLUE			48-25421-200
HARBOR GRAY			48-25421-300
CASCADE RED			48-25421-400

NOTES:

1. BACKCOATING: LATEX
2. 22 OZ./SQUARE YARD

CHG	JOB NO	DATE	BY	REVISION
-	P07908-23	10/04/99	PTA	INITIAL RELEASE

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	CARPET 22 OZ. NYLON	48-25421	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. -
CATIA ORIGINAL				

ENGINEERING REQUIREMENTS

PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY (MOLDED OR OTHERWISE FABRICATED).

CONSTRUCTION REQUIREMENTS

PILE YARN

YARN SIZE.....87.5% BCF NYLON
12.5% BCF POLYPROPYLENE

YARN SIZE.....NYLON BCF - 1405/1 DENIER
PP BCF - 2000/1 DENIER, SD BLACK

TWIST AND DIRECTION.....0.0

TUFTING FABRIC

THE WOVEN POLYPROPYLENE FABRIC WITH FLW CAP SHALL BE UNIFORM IN CONSTRUCTION AND SHALL HAVE A MASS BETWEEN 105 G/SQ M. (3.1 OZ/SQ YD) AND 128 G/SQ M (3.8 OZ/SQ YD).

BACKCOATING TYPE

DASH NUMBER -X00.....LATEX

DYE METHOD.....PIECE DYE

FINISHED CARPET

FINISHED WIDTH.....72 INCHES
NEEDLE GAUGE.....2.5 MM(1/10 IN.)CUT
FINISHED ROW COUNT
OF PILE.....10.0 ROWS/IN.OR 39.4 ROWS/10 CM
FINISHED STITCH COUNT
OF PILE.....12.0 STITCHES/IN.(47.2 STITCHES/10 CM)
HEIGHT OF PILE (MIN.).....6.4 MM (0.250 IN.)

CHG	JOB NO	DATE	BY	REVISION
-	P07908-23	10/04/99	PTA	INITIAL RELEASE

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	CARPET 22 OZ. NYLON	48-25421	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. -
CATIA ORIGINAL				

GENERAL REQUIREMENTS (CONT'D)

FINISHED MASS

	-X00	
	G/SQ M	G/SQ M
PILE	542	(22)
BACKING FABRIC*	102	(3.42)
BACKING COATING	271	(9)
TOTAL*	915	(34.42)±10%

* HEAVIER BACKING FABRIC MAY BE SPECIFIED FOR SOME APPLICATIONS.

PERFORMANCE REQUIREMENTS

MASS -X00.....1.16 KG/SQ M (34.42 OZ/SQ YD) ±10%

TENSILE STRENGTH.....MD(WARP)...MINIMUM 445 N (100 LB)
AMD(FILLING)...MINIMUM 356 N (80 LB)

TEAR RESISTANCE.....MD (ACROSS WARP)...MINIMUM 36 N (8 LB)
AMD (ACROSS FILLING)...MINIMUM 36 N (8 LB)

SHRINKAGE.....MD (WARP)...MAXIMUM 1.0%
AMD(FILLING)...MAXIMUM 1.0%

WEAR RESISTANCE-5000 CYCLES....THE CARPET SURFACE SHALL NOT BE WORN DOWN TO
(TABER ABRADER, H18 WHEELS THE TOP SURFACE OF THE BACKING FABRIC FOR MORE
1000 G LOAD) THAN 10% OF THE ABRADED AREA.

RESISTANCE TO BLEED-AATC...RATING...DRY..MINIMUM 2.5
WET..MINIMUM 2.5

RESISTANCE TO BLEED-AATC...RATING.....MINIMUM 2.5

FADE RESISTANCE**.....NO FADE OR COLOR CHANGE LOWER THAN THE RATING
(80 STANDARD FADEOMETER 3-4 ON THE ISO GRAY SCALE FOR EVALUATING CHANGE
IN COLOR.

**FADE RESISTANCE TESTS ARE REQUIRED ONLY FOR AREAS EXPOSED TO SUNLIGHT.

CHG	JOB NO	DATE	BY	REVISION
-	P07908-23	10/04/99	PTA	INITIAL RELEASE

DRAWN	PTA	TITLE	DRAWING NUMBER	
APPRV	DAJ	CARPET 22 OZ NYLON	48-25421	
DATE	10/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4	CHG. LTR. -
CATIA ORIGINAL				

METHODS OF TESTING

TOTAL MASS..... ASTM D418, SECTION 7,
(SPECIMEN SIZE - 12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD, AVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED 2"/MIN, READ PEAK LOAD, AVERAGE OF 5 TESTS)

SHRINKAGE, MAX.....SAE J883 (REMEASURE AFTER 24 HOURS AT STANDARD CONDITIONS)

WEAR RESISTANCE.....TABER ABRADER (H-18 WHEEL, 1000 G LOAD, 5000 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

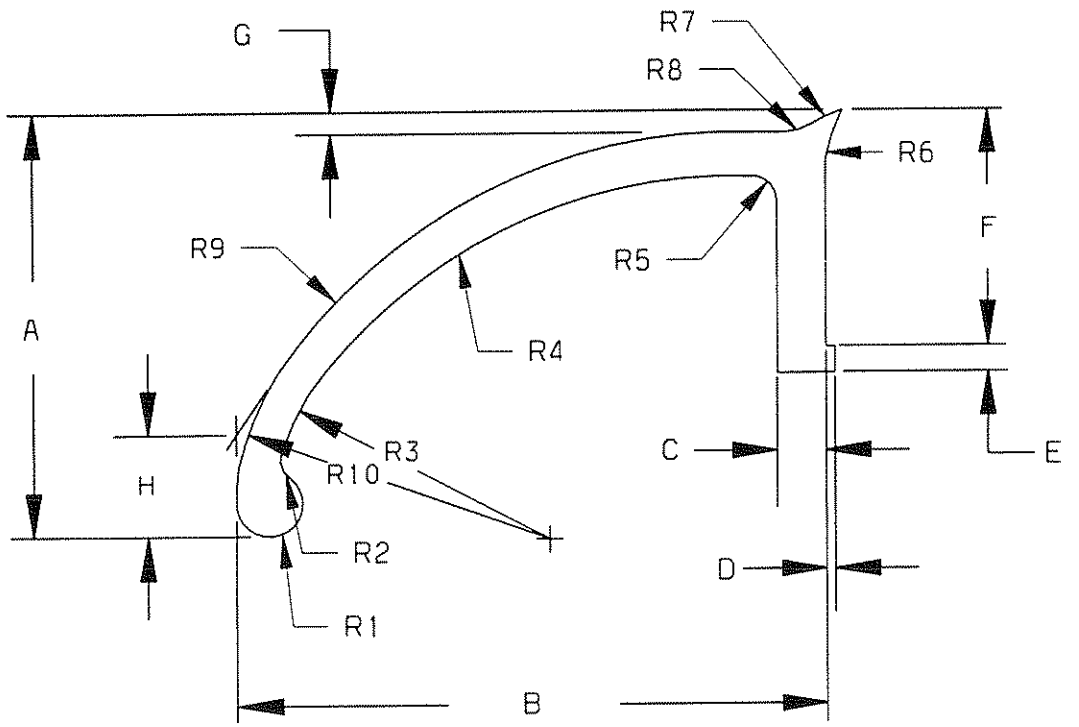
RESISTANCE TO BLEED.....CUSTOMER TEST:
#1 MULTIFIBER CLOTH - ACETATE COTTON-NYLON-SILK-VISCOSE-WOOL. DISH WITH MULTIFIBER CLOTH, CARPET FACE DOWN RUNNING OPPOSITE TO CLOTH, 5 GLASS PLATES ON TOP, 25CC WATER, SOAK FOR 15 MINUTES, SQUEEZE OUT EXCESS WATER, THEN PUT IN LARGER OVEN FOR 4 HOURS, LETTING THEM IN DISHES.

FADE RESISTANCE.....AATC 16E, XENON ARC

FLAMMABILITY.....FEDERAL MOTOR VEHICLE SAFETY STANDARD NO. 302.

CHG	JOB NO	DATE	BY	REVISION
-	P07908-23	10/04/99	PTA	INITIAL RELEASE

DRAWN	DBA	TITLE	DRAWING NUMBER	
APPRV	KGN	EXTRUSION - RUBBER WHEEL OPENING EXTENSION	48-25423	
DATE	10/20/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



PART NO.	A	B	C	D	E	F	G	H	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
48-25423-000	61.41	85.10	7.04	1.30	3.76	34.26	3.21	14.76	4.75	3.17	40.62	74.91	3.58	26.80	26.32	6.85	79.08	45.95

SPECIFICATIONS:

1. MATERIAL: SAEJ200/ANSI/ASTM D2000 M2AA807 A13C12F17Z1Z2
   SUFFIX Z1-100% EPDM
   SUFFIX Z2-COLOR BLACK
2. TOLERANCES IN ACCORDANCE WITH RMA CLASS 2.

CHG	JOB NO	DATE	BY	REVISION
-	P07658-28	10/20/99	MST	INITIAL RELEASE

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-KNIT TRIM & SEATING QUALITY	48-25424	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 4	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION IDENTIFIES A KNIT FABRIC.

APPLICATION: TRIM AND SEATING QUALITY - FOR HEAVY DUTY SERVICE SUCH AS COVERINGS FOR SEAT CUSHIONS AND BACKS AND WALL PANELS.

SPECIFICATION NUMBERS:

SEATING AND TRIM QUALITY.

COLOR	GUILFORD MILLS		REMARKS	FREIGHTLINER PART NUMBER
	PATTERN	COLOR		
BONNEVILLE BEIGE	CALEDONIA	KJ22	48" WIDTH	48-25424-100
PACIFIC BLUE	CALEDONIA	KJ21	48" WIDTH	48-25424-200
HARBOR GRAY	CALEDONIA	KJ23	48" WIDTH	48-25424-300
CASCADE RED	CALEDONIA	KJ20	48" WIDTH	48-25424-400

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	COLORS REVISED; PACIFIC BLUE WAS CASCADE RED,
				HARBOR GRAY WAS PACIFIC BLUE, CASCADE RED WAS
				HARBOR GRAY.

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-KNIT TRIM & SEATING QUALITY	48-25424	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 4	CHG. LTR. A
CATIA ORIGINAL				

ENGINEERING REQUIREMENTS

1.0 GENERAL REQUIREMENTS

DESCRIPTION

THIS SPECIFICATION QUALIFIES KNIT TYPE FABRICS THAT ARE SUITABLE FOR USE AS TRUCK SEAT UPHOLSTERY AND/OR INTERIOR TRIM. IT ALSO DESCRIBES THE GENERAL REQUIREMENTS FOR FABRIC PROPERTIES, IDENTIFICATION AND QUALITY.

DYE METHOD

UNLESS OTHERWISE SPECIFIED, FABRIC WILL BE PIECED DYED.

ALIGNMENT: (BOW AND BIAS)

THE DEGREE OF BOW AND BIAS IN THE FILLING DIRECTION SHALL NOT EXCEED 1/2 INCH FROM SELVAGE TO CENTER, ABOVE OR BELOW THE HORIZONTAL LINE, OR A TOTAL OF ONE INCH FROM SELVAGE TO SELVAGE ABOVE OR BELOW THE HORIZONTAL COMBINED. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED WOVEN MATERIAL.

SEAM STRENGTH: FORD BN 119-01

THE JOINING SEAM SHALL RESIST SLIPPAGE OF ANY YARN OR THREAD. THERE SHALL BE NO FRACTURES AT THE SEW LINE IN ANY MATERIAL. THIS REQUIREMENT DOES NOT APPLY TO UNBACKED MATERIAL.

ABRASION: ASTM-D-3884

AFTER 500 CYCLES UNDER 250 GRAM LOAD USING CS-17 ABRASION WHEELS THER SHALL BE NO APPRECIABLE COLOR CHANGE OF THE ABRAIDED SURFACE AND NO VISIBLE YARN RUPTURES

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-KNIT TRIM & SEATING QUALITY	48-25424	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 4	CHG. LTR. A
CATIA ORIGINAL				

GENERAL REQUIREMENTS (CONTINUED)

COLORFASTNESS (CROCK): AATCC TEST METHOD 15

A CROCKING TEST PERFORMED WET AND DRY SHALL SHOW NO APPRECIABLE STAINING OF THE CONTACT FABRIC AND HAVE A MINIMUM AATC RATING OF FOUR (5) DRY AND THREE (5) WET WHEN COMPARED TO THE AATCC COLOR TRANSFERENCE EVALUATION CHART.

COLORFASTNESS (FADE): AATCC TEST METHOD 16A

THERE SHALL BE NO OFF TONE COLOR ALTERATION AFTER EXPOSURE TO 100 HOUR CARBON ARC FADEOMETER TEST.

BLEEDING AND PERSPIRATION: AATCC TEST METHOD 16A

THE CONTACT FABRIC SHALL REMAIN VIRTUALLY UNSTAINED AND TEST SAMPLE SHALL SHOW NO APPARENT CHANGE IN COLOR.

TENSILE STRENGTH: ASTM D5034

MINIMUM OF 100 X 100 FOR WARP AND FILL.

TEAR STRENGTH: ASTM D5587.

MINIMUM OF 12 X 12 FOR WARP AND FILL.

FLAMMABILITY REQUIREMENT: FMVSS-302

MATERIAL SUPPLIED TO THIS SPECIFICATION SHALL CONFORM TO AND BE CERTIFIED BY THE FABRIC SUPPLIER TO MEET THE REQUIREMENTS OF THE FEDERAL MOTOR VEHICLE SAFETY STANDARD•302..... FLAMMABILITY OF INTERIOR MATERIALS.

IDENTIFICATION

THE FABRIC ROLL SHALL REFLECT MANUFACTURERS LABEL WITH THE MONTH, YEAR OF FABRICATION, DYE LOT NUMBER, AND MATERIAL NAME/PATTERN.

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

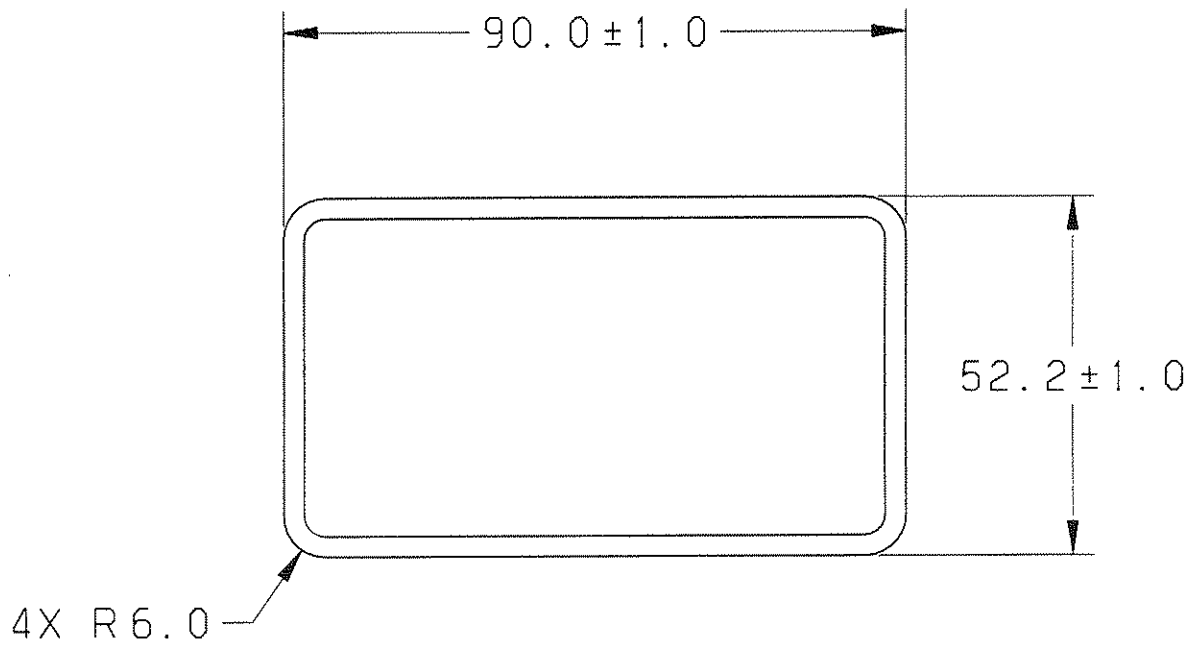
DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	FABRIC-KNIT TRIM & SEATING QUALITY	48-25424	
DATE	08/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 4 OF 4	CHG. LTR. A
CATIA ORIGINAL				

2.0 SPECIFIC REQUIREMENTS:

REQUIREMENT	SPECIFICATION	TEST METHOD
PILE YARN	100% SEMI-DULL POLYESTER 95 D.	--------
YARN-BACKING	100% POLYESTER 70 D.	--------
COURCES/INCH:	58/60	--------
WALES: PICKS/INCH	35	--------
PILE TUFTS/SQ INCH	2030	--------
FINISHED WT: OZS/SQ YD	9.2 OZ.	--------
SEAM STRENGTH	RESIST SLIPPAGE OF ANY SINGLE THREAD-NO FRACTURES AT SEW LINE	FORD BN119-01 70 LBS.
ABRASION RESISTANCE	NO VISIBLE YARN RUPTURE	ASTM-D-3884
COLORFASTNESS (CROCK)	DRY (5) - WET (3)	AATCC TEST 15
COLORFASTNESS (FADE)	100 HOURS FDA-R NO OFF TONE FADE	AATCC TEST 16A
BLEED & PERSPIRATION	CONTACT FABRIC UNSTAINED TEST SAMPLE SHOWS NO APPARENT COLOR COLOR CHANGE	AATCC TEST 16A
TENSILE STRENGTH(MIN)	DRY-100 LBS. WET-100 LBS.	ASTM D5034
TEAR STRENGTH (MIN) TRAP TEAR	WARP: 12 LBS. FILL: 12 LBS.	ASTM D5587
FLAMMABILITY RESISTANCE	MAX. BURN RATE 4" MIN.	FMVSS-302

CHG	JOB NO	DATE	BY	REVISION
-	P07908-19	08/09/99	NLL	INITIAL RELEASE
A	P07908-23	10/12/99	PTA	SEE SHEET 1

DRAWN	PRT	TITLE EXTRUSION-ALUMINUM TREAD SUPT-OUTER	DRAWING NUMBER 48-25426
APPRV	DAJ		
DATE	08/28/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



MATERIAL	AREA SQ. MM.	WEIGHT LB/IN	F/L SPEC NO.
6061-T6	794.02	.12	48-25426-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. ALL WALLS ARE 3 MM THICK UNLESS OTHERWISE SPECIFIED.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P09684-01	08/28/99	PRT	INITIAL RELEASE

48-25431 , - , FLUID-ATF

DRAWN	KRM	TITLE	DRAWING NUMBER	
APPRV	LKG	FLUID-ATF TRANSYND	48-25431	
DATE	09/18/98			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES A SYNTHETIC LUBRICATING FLUID FOR AUTOMATIC TRANSMISSION AND UNIVERSAL POWER SHIFT.

APPLICATION: TRANSMISSION FLUID FOR THE MOST SEVERE DUTY CONDITIONS.

SAE GRADE	SUPPLIER/PN	FTL SPEC NUMBER
10W,20	CASTROL/TRANSYND	48-25431-000

ENGINEERING NOTES:

1. PHYSICAL PROPERTIES:

SPECIFIC GRAVITY (ASTM D287) @16°C	0.85
FLASH POINT, ASTM D92 (°C)	232
GRAVITY, API	-
VISCOSITY INDEX (ASTM D2270)	168

2. MEETS OR EXCEEDS THE REQUIREMENTS OF DEXRON-111(G-34010), ALLISON TES-295 AND ALLISON C-4-27403598

3. API SERVICE DESIGNATION: -

CHG	JOB NO	DATE	BY	REVISION
-	P09894-01	09/29/99	DAJ	INITIAL RELEASE

DRAWN	TAF	TITLE	DRAWING NUMBER	
APPRV	DAJ	SEALER EXPANDING	48-25434	
DATE	10/01/99			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -

SCOPE: THIS SPECIFICATION IDENTIFIES AN EXTRUDED HEAT EXPANDING, FLEXIBLE MATERIAL WITH RELEASE LINER. THIS MATERIAL CURES UNDER THE HEAT OF PRODUCTION PAINT OVENS. ONCE EXPANDED, IT HAS A TIGHT CELL STRUCTURE.

APPLICATION: FOR SEALING OPENINGS IN GALVANIZED, E-COAT, OR ELECTRO GALVANIZED SHEET METAL AREAS.

MANUFACTURER'S NUMBER	FREIGHTLINER SPECIFICATION NUMBER
LL PRODUCTS	
L-2660	48-25434-000

ENGINEERING NOTES:

1. PHYSICAL PROPERTIES:

SPECIFIC GRAVITY	1.25-1.35
WATER ABSORPTION (5% MAX) (171°C)	0.50%
EXPANSION (VOLUMETRIC):	550-1100
CORROSION (APGE PERFORMED IN PLACE OF CORROSION RESISTANCE)	NO LOSS OF ADHESION NO CORROSION
TEMP RANGE (30 MIN, °F) (METAL TEMPERATURE)	300-400
HARDNESS, TYPICAL (ASTM D5) (mm) (100 GRAM LOAD, 5 SEC READING)	5.0
APPERANCE/ODOR	GRAY SOLID/LIKE RUBBER

CHG	JOB NO	DATE	BY	REVISION
-	P10030-01	10/01/99	TAF	INITIAL LOAD

48-25435 , A , , CARPET

DRAWN	BS	TITLE	DRAWING NUMBER	
APPRV	CRC	CARPET BCF NYLON 30.5 OUNCE	48-25435	
DATE	11/10/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 3	CHG. LTR. A
CATIA ORIGINAL				

SCOPE: THIS SPECIFICATION DESCRIBES CAB INTERIOR CARPET.

APPLICATION: THIS STANDARD REPRESENTS THE REQUIREMENTS FOR A 100% BCF NYLON CUT PILE CARPET THAT IS SUITABLE FOR USE AS AUTOMOTIVE TRIM, AND OTHER APPLICATIONS AS APPROVED.

SPECIFICATION NUMBERS:

DORSETT SERIES 800 EL DORADO CARPET

DORSETT COLOR	FREIGHTLINER COLOR	DORSETT PART NUMBER	FREIGHTLINER PART NUMBER
ASCOT GREY	ASCOT GREY	8067	48-25435-900

NOTES:

GENERAL REQUIREMENTS: NYLON CONSTRUCTION
PERFORMANCE TESTS SHALL BE CONDUCTED ON THE END ITEM CARPET ASSEMBLY. (MOLDED OR OTHERWISE FRABRICATED)

CONSTRUCTION REQUIREMENTS:

PILE YARN:

YARN TYPE.....100% BULKED CONTINUOUS FILAMENT NYLON
YARN SIZE.....1405/1 BCF NYLON
YARN WEIGHT PER SQ YD...14.0 OUNCE

TUFTING FABRIC:

TYPE.....WOVEN POLYPROPYLENE OR SPUNBONDED POLYESTER
WEIGHT...3.5 OZ. MINIMUM

CHG	JOB NO	DATE	BY	REVISION
-	P09205-10	10/08/99	BS	INITIAL RELEASE
A	P09205-12	11/04/99	PMK	ADDED SPUNBONDED POLYESTER AS A TUFTING FABRIC

DRAWN	NLL	TITLE	DRAWING NUMBER	
APPRV	DAJ	CARPET BCF NYLON 30.5 OUNCE	48-25435	
DATE	11/10/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 2 OF 3	CHG. LTR. A
CATIA ORIGINAL				

BACKCOATING TYPE.....SBR LATEX
DYE METHOD..... .PIECE DYE(CONTINUOUS RANGE)

FINISHED CARPET
FINISHED WIDTH.....40 INCHES OR 80 INCHES
NEEDLE GUAGE.....1/8
STICHES PER INCH.....9.6 +1%
FINISHED ROW COUNT.....8 +1%
HEIGHT OF PILE (MIN).....3125 INCH

FLAMMABILITY....MEETS OR EXCEEDS FMVSS #302.

TYPICAL PROPERITIES:

AVERAGE TENSILE STRENGTH-ASTM D 1682.....LENGTH 112 LBS.
WIDTH 87 LBS.

AVERAGE TEAR STRENGTH-ASTM D 2261.....LENGTH 26.5 LBS.
WIDTH 25.9 LBS.

WEAR RESISTANCE-TABER ABRASION-ASTM D 3884 100 GRAM LOAD:
NUMBER OF CYCLES UNTIL A PORTION OF PRIMARY
BACKING IS VISIBLE.....2000 CYCLES

AVERAGE TUFT BIND-ASTM D 1335.....4.0 LBS.

SHRINKAGE:
MD (WARP).....MAXIMUM 1.0%
AMD (FILL).....MAXIMUM 1.0%

RESISTANCE TO CROCKING-AATCC 165:
DRY.....MINIMUN 4
WET.....MINIMUN 4

COLORFASTNESS TO WATER-AATCC 107:
MINIMUM 4

COLORFASTNESS TO LIGHT-AATCC 16:
MINIMUM RATING OF 4 ON AATCC OR ISO 105/1 PART2
GREY SCALE AFTER FOLLOWING HOURS OF EXPOSURE:
16E XENON ARC: 100AFU'S

CHG	JOB NO	DATE	BY	REVISION
-	P09205-10	10/08/99	BS	INITIAL RELEASE
A	P09205-12	11/04/99	PMK	REVISED FINISH WIDTH FROM 70" TO 40" OR 80"

DRAWN	BS	TITLE	DRAWING NUMBER	
APPRV	CRC	CARPET BCF NYLON 30.5 OUNCE	48-25435	
DATE	11/10/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 3 OF 3	CHG. LTR. A
CATIA ORIGINAL				

FOLLOWING THE REQUIRED HOURS OF EXPOSURE, ANY SIGNIFICANT SHEDDING OF FACE YARN INDICATING FIBER DEGRADATION/EMBRITTLEMENT SHALL CONSTITUTE A FAILURE EVEN IF THE COLOR IS STILL SATISFACTORY.

METHODS OF TESTING:

TOTAL MASS.....ASTM D418 (SECTION 7) (SPECIMEN SIZE 12" X 12")

TENSILE STRENGTH.....ASTM D1682 (GRAB METHOD) (ADVERAGE OF 5 TESTS)

TEAR RESISTANCE.....ASTM 2261 (CROSSHEAD SPEED 2"/MIN. READ PEAK LOAD, AVERAGE OF 5 TESTS)

SHRINKAGE MAX.....SAE J883 (REMEASURE AFTER 24 HOURS AT STANDARD CONDITIONS)

WEAR RESISTANCE.....TABER ABRADER H-18 WHEEL, 1000 GRAM LOAD, 2000 CYCLES)

RESISTANCE TO CROCKING.....SAE J681

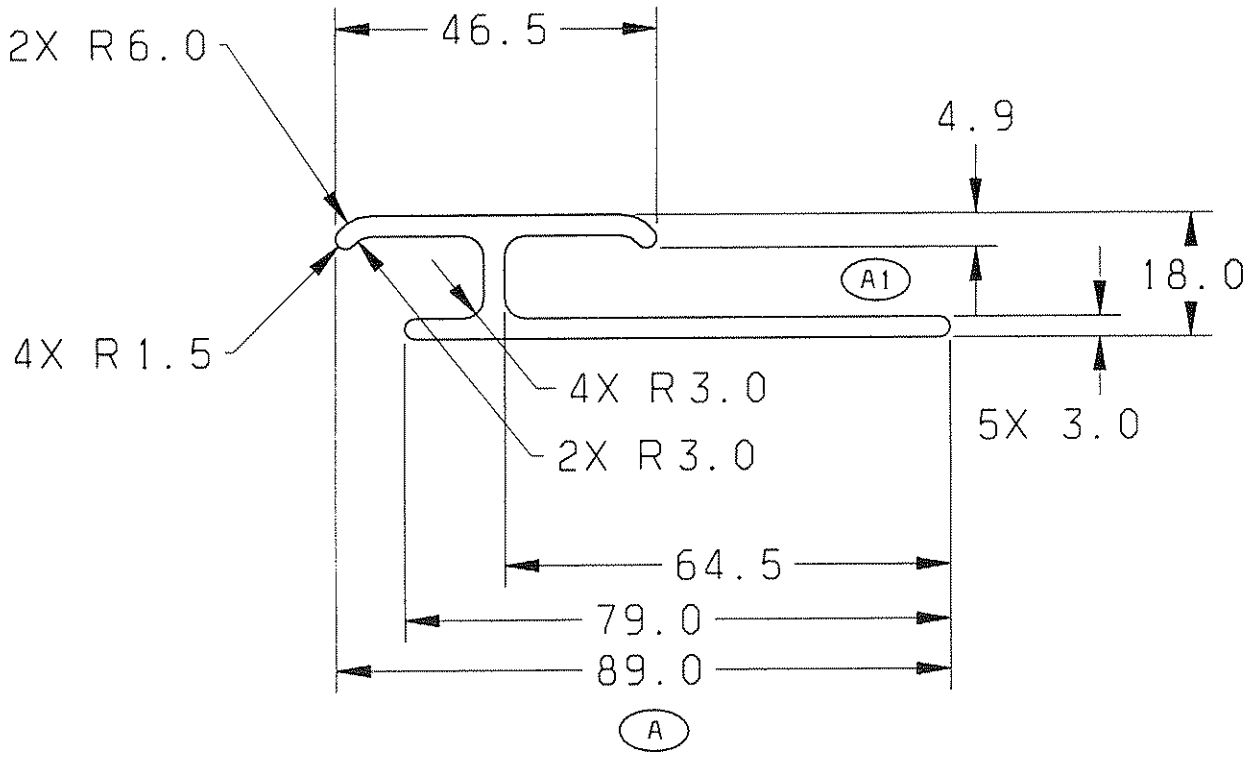
RESISTANCE TO BLEED....CUSTOMER TEST:
#1 MULTIFIBER CLOTH- ACETATE COTTON-NYLON-SILK-VICOSE-WOOL DISH WITH MULTIFIBER CLOTH, CARPET FACE DOWN RUNNING OPPOSITE TO CLOTH, 5 GLASS PLATES ON TOP, 25CC WATER, SOAK FOR 15 MINUTES, SQUEEZE OUT EXCESS WATER, THEN PUT IN LARGER OVEN FOR 4 HOURS, LETTING THEM IN DISHES.

FADE RESISTANCE.....AATCC 16EA, XENON ARC

FLAMMABILITY.....FMVSS 302

CHG	JOB NO	DATE	BY	REVISION
-	P09205-10	10/08/99	BS	INITIAL RELEASE
A	P09205-12	11/04/99	PMK	SEE SHEET 01 & 02

DRAWN	MRM	TITLE	DRAWING NUMBER	
APPRV	KKK	EXTRUSION-ALUMINUM COLUMBIA, SIDEWALL	48-25436	
DATE	11/04/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. A
CATIA ORIGINAL				



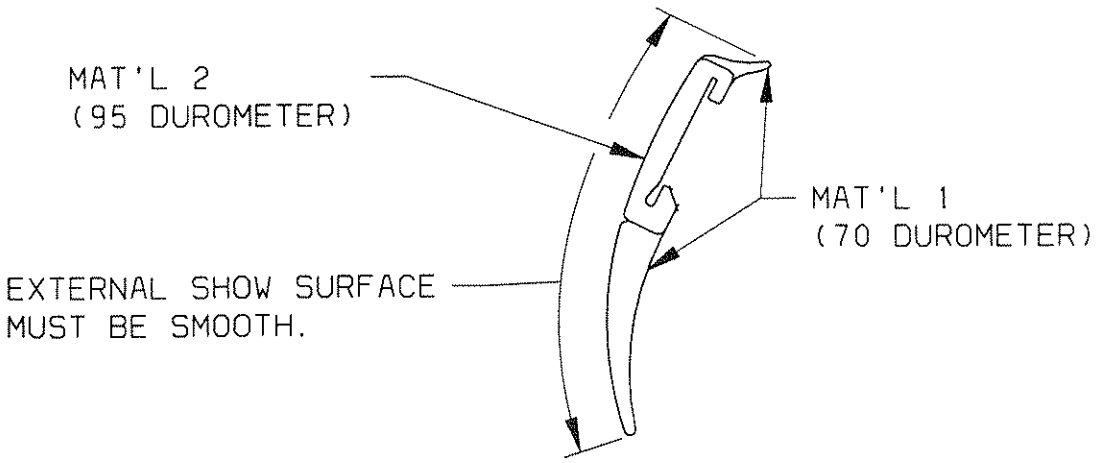
MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
6061-T6 OR 6063-T6	420.0	2.56	48-25436-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
3. TOLERANCES OTHER THAN NOTED PER ALUMINUM ASSOC. STANDARDS AND ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P07908-30	10/11/99	MRM	INITIAL RELEASE
A	P07908-42	11/04/99	MRM	DIMENSION WAS 71.8
A1				REMOVED LOCATING GROOVE

DRAWN	PT	TITLE: EXTRUSION, MOLDING, UPR W/S P2/C2	DRAWING NUMBER: 48-25438
APPRV	CHB		
DATE	10/18/99	FREIGHTLINER CORPORATION, PORTLAND, OREGON	SHEET 1 OF 2 / CHG. LTR. -
CATIA ORIGINAL			



DIE PLATE AND DETAIL

SECTION DEFINITION CONTROLLED BY CAD DATASET.
SEE MASTER MODEL FOR DEFINITION.

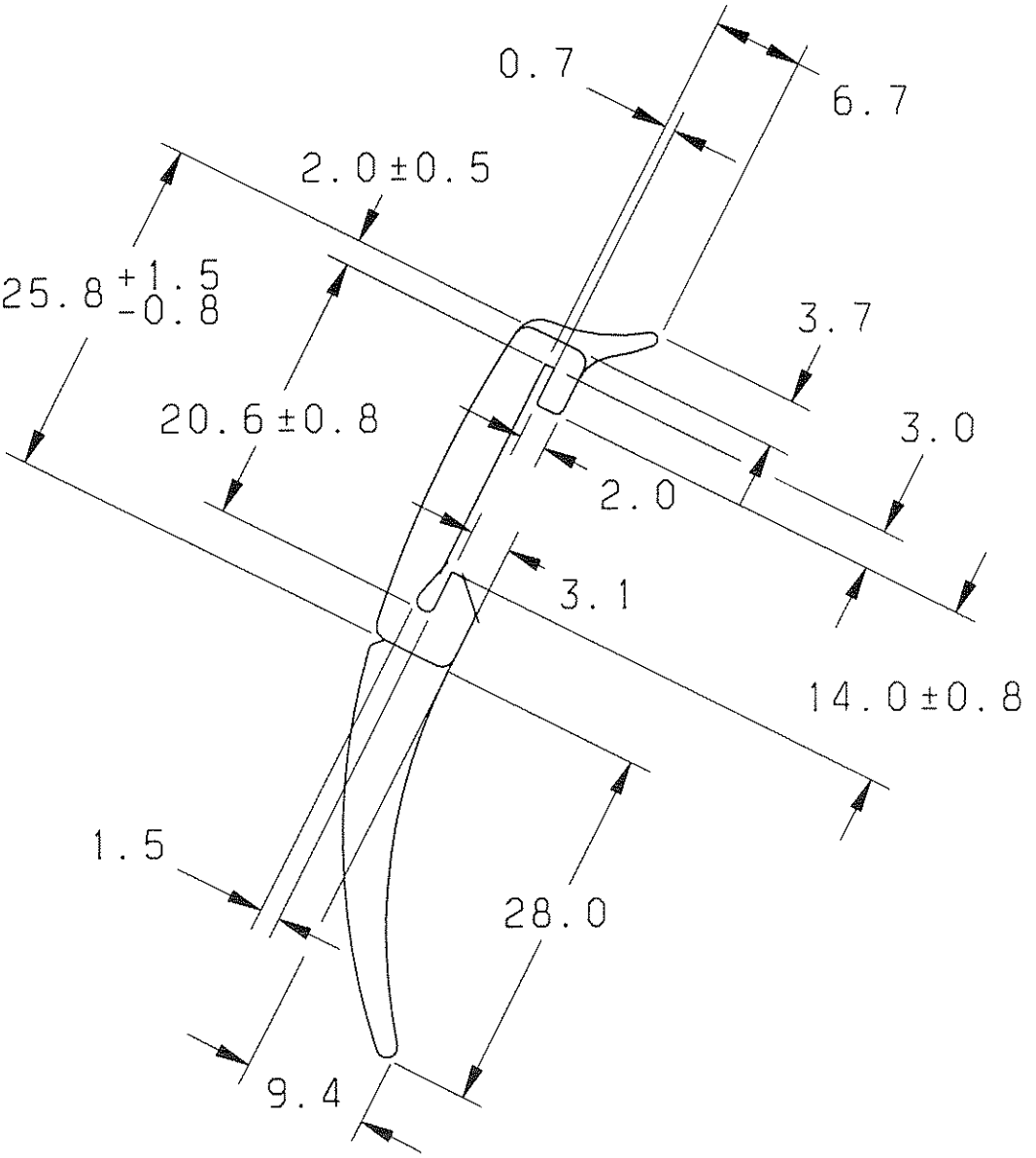
MATERIAL	AREA SQ. IN.	WEIGHT LB/IN	F/L SPEC NO.
EPDM (SEE NOTE 1)	.367	.015	48-25438-000

SPECIFICATIONS:

1. MAT'L 1: ASTM D2000 M3BA710 A14B13C12F17
   MAT'L 2: ASTM D2000 M3BA907 A14B13C12
2. FINISH: AS EXTRUDED, SEE LOCAL NOTE
3. F/L CAN SUPPLY OPTICAL TRACING TEMPLATES TO ANY DESIRED SCALE.
4. TOLERANCES OTHER THAN NOTED PER RUBBER ASSOC. STANDARDS FOR EXTRUDED SHAPES, RMA-CLASS 3, COMMERCIAL.

CHG	JOB NO	DATE	BY	REVISION
-	P03724-05	10/25/99	PT	INITIAL RELEASE

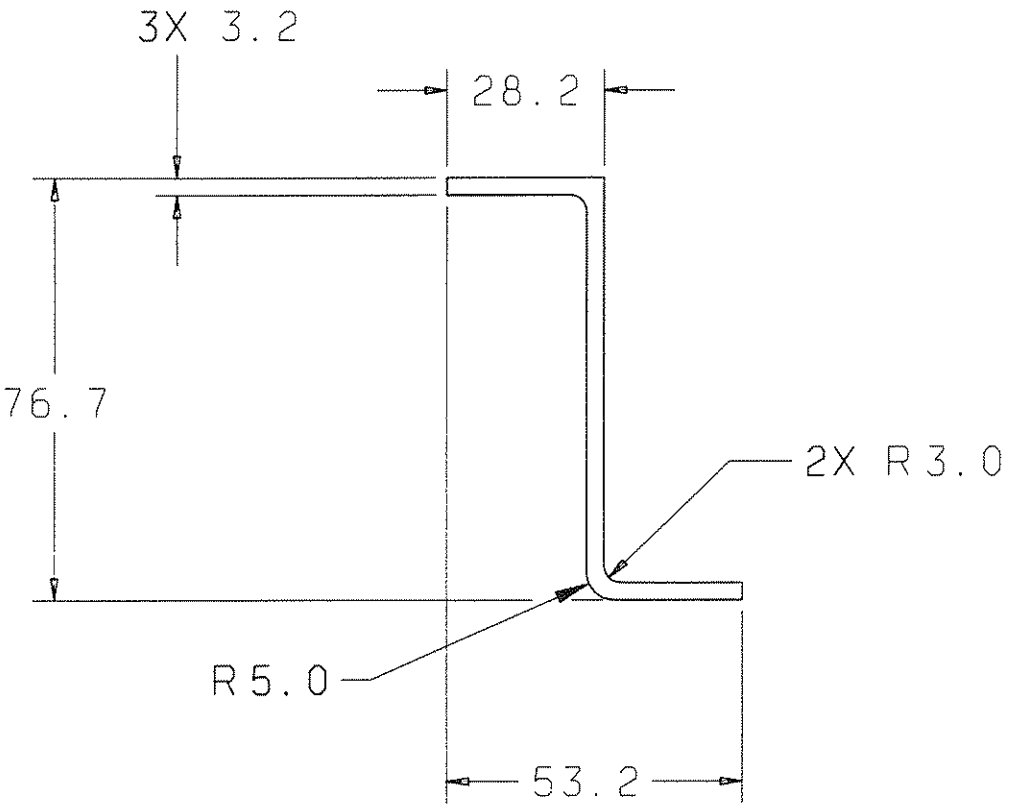
DRAWN	PT	TITLE: EXTRUSION, MOLDING, UPR W/S P2/C2	DRAWING NUMBER: 48-25438
APPRV	CHB		
DATE	10/18/99	FREIGHTLINER CORPORATION, PORTLAND, OREGON	SHEET 2 OF 2 / CHG. LTR. -
CATIA ORIGINAL			



VIEW SCALE 4:1

CHG	JOB NO	DATE	BY	REVISION
-	P03724-05	10/18/99	PT	INITIAL RELEASE

DRAWN	DPK	TITLE	DRAWING NUMBER	
APPRV	DEK	EXTRUSION-B PILLAR, T2 82104	48-25445	
DATE	11/08/99			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	400.8	2.4	48-25445-000

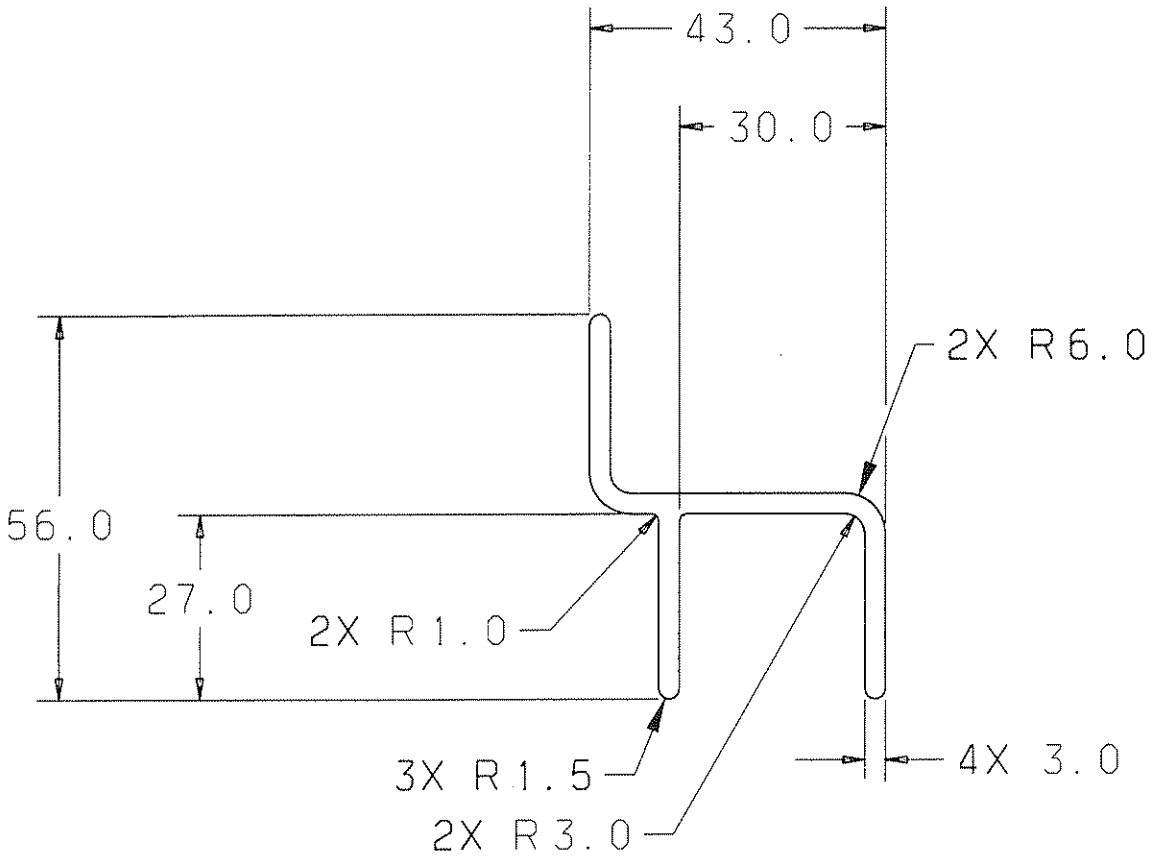
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. CONTOUR DEFINITION IS CONTROLLED BY CAD DATASET. CAD DATASET TO BE PROVIDED BY F/L.
3. TOLERANCES OTHER THAN NOTED PER ANSI H35.2

CHG	JOB NO	DATE	BY	REVISION
-	P08753-01	11/08/99	DPK	INITIAL RELEASE

48-25446 , - , EXTRUSION-BACK WALL, U

DRAWN	DPK	TITLE EXTRUSION-BACK WALL, UPPER, T2 82308	DRAWING NUMBER 48-25446
APPRV	DEK		
DATE	11/08/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



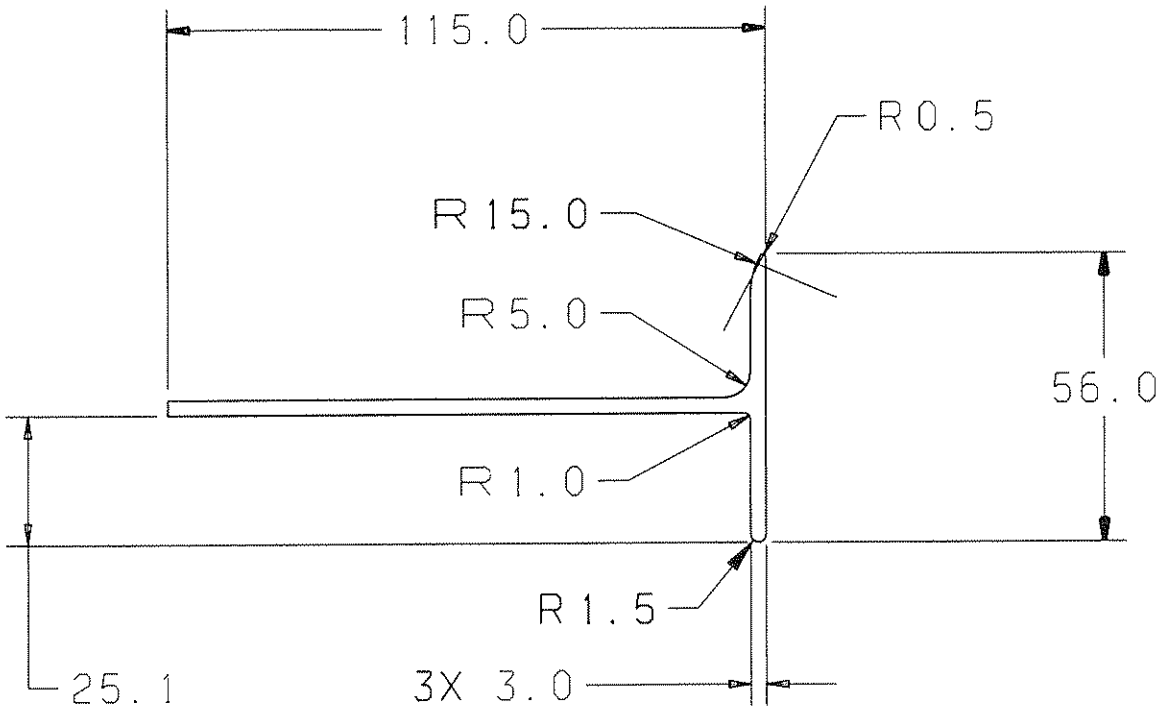
MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	354.9	2.1	48-25446-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. CONTOUR DEFINITION IS CONTROLLED BY CAD DATASET. CAD DATASET TO BE PROVIDED BY F/L.
3. TOLERANCES OTHER THAN NOTED PER ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P08753-01	11/08/99	DPK	INITIAL RELEASE

DRAWN: DPK	TITLE: EXTRUSION-HEADER, T2 82409	DRAWING NUMBER: 48-25447	
APPRV: DEK			
DATE: 11/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL			



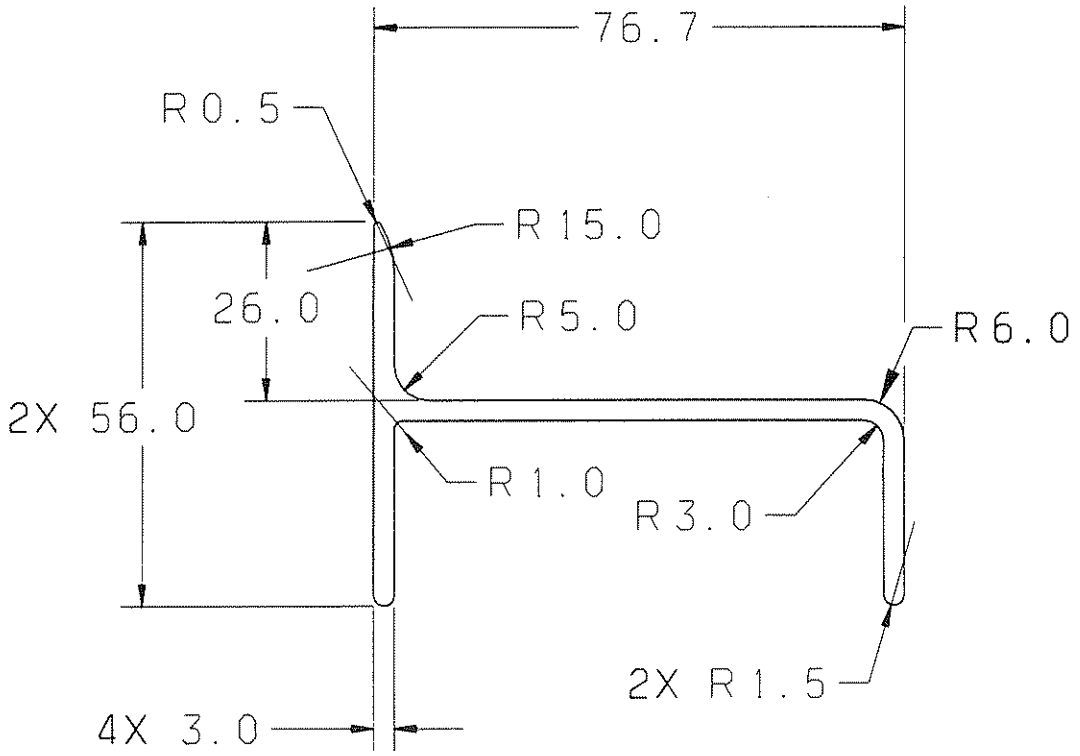
MATERIAL	AREA SQ. MM.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	502.9	3.0	48-25447-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. CONTOUR DEFINITION IS CONTROLLED BY CAD DATASET. CAD DATASET TO BE PROVIDED BY F/L.
3. TOLERANCES OTHER THAN NOTED PER ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P08753-01	11/09/99	DPK	INITIAL RELEASE

DRAWN	DPK	TITLE EXTRUSION-SIDEWALL, T2 82103	DRAWING NUMBER 48-25448
APPRV	DEK		
DATE	11/09/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1 / CHG. LTR. -
CATIA ORIGINAL			



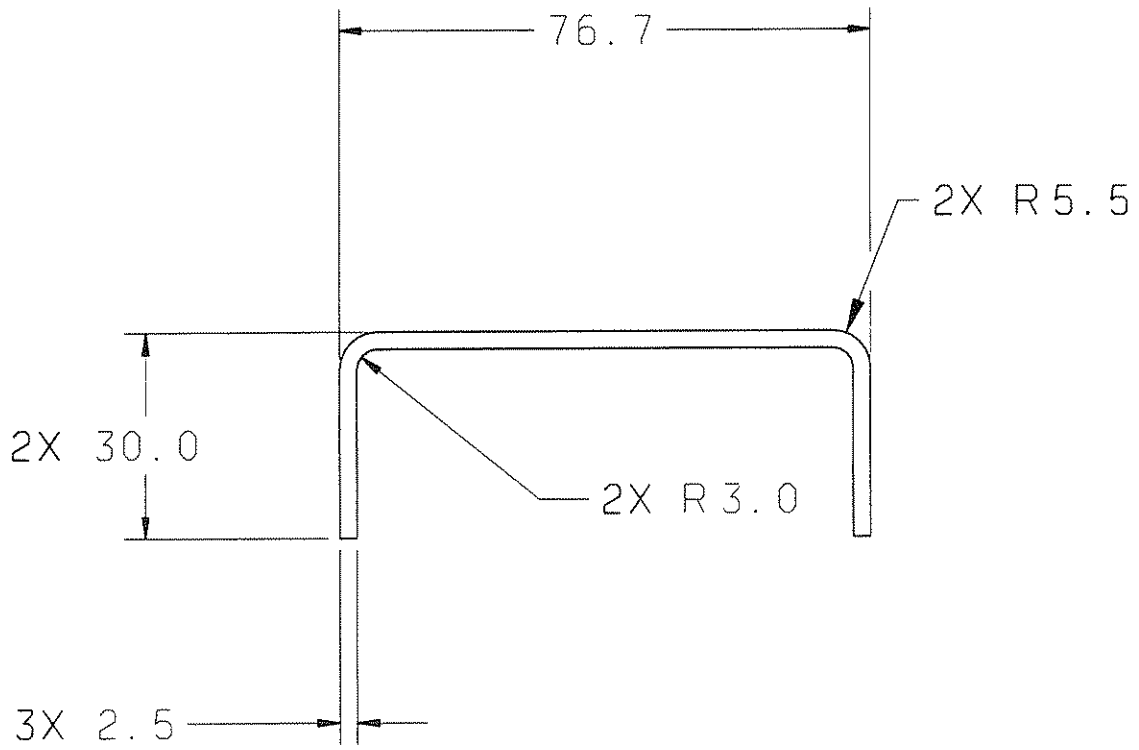
MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	462.4	2.7	48-25448-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. CONTOUR DEFINITION IS CONTROLLED BY CAD DATASET. CAD DATASET TO BE PROVIDED BY F/L.
3. TOLERANCES OTHER THAN NOTED PER ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P08753-01	11/09/99	DPK	INITIAL RELEASE

DRAWN	DPK	TITLE	DRAWING NUMBER	
APPRV	DEK	EXTRUSION-WHEEL WELL, T2 82101	48-25449	
DATE	11/11/99			
CATIA ORIGINAL		FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -



MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T6	320.2	1.9	48-25449-000

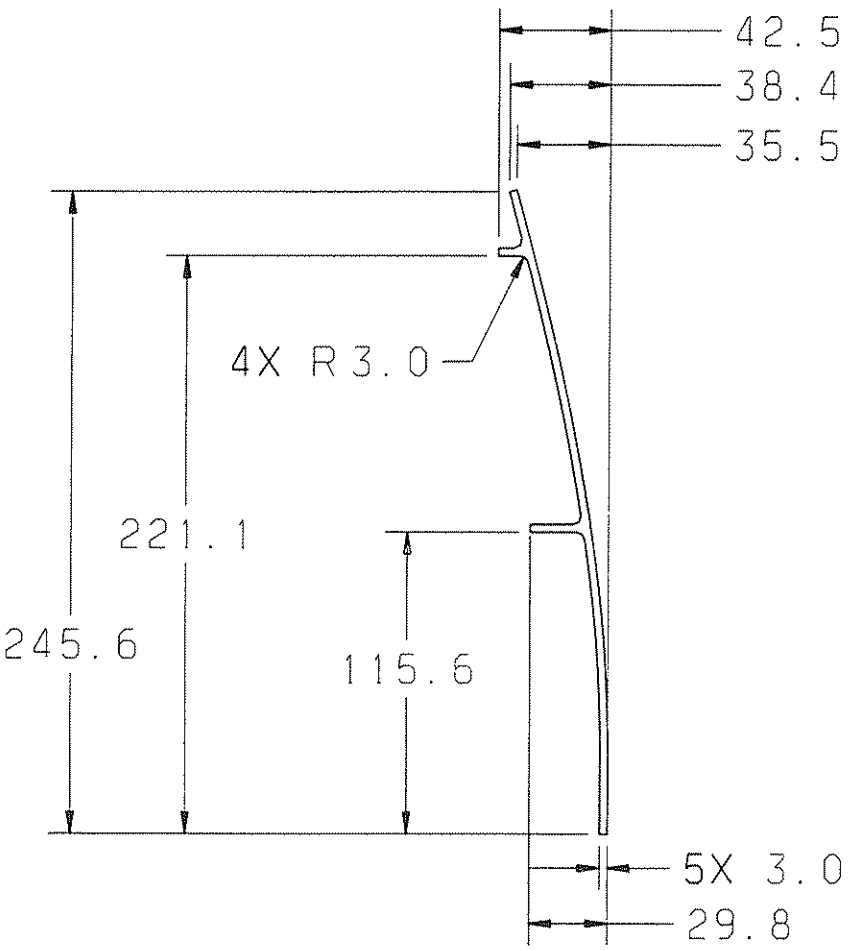
SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. CONTOUR DEFINITION IS CONTROLLED BY CAD DATASET. CAD DATASET TO BE PROVIDED BY F/L.
3. TOLERANCES OTHER THAN NOTED PER ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P08753-01	11/11/99	DPK	INITIAL RELEASE

48-25454 , - , ,EXTRUSION-COWL,T2

DRAWN	DPK	TITLE	DRAWING NUMBER	
APPRV	DEK	EXTRUSION-COWL,T2 82407	48-25454	
DATE	11/17/99	FREIGHTLINER CORPORATION PORTLAND, OREGON	SHEET 1 OF 1	CHG. LTR. -
CATIA ORIGINAL				



MATERIAL	AREA SQ. mm.	WEIGHT LB/M	F/L SPEC NO.
6061-T4	848.3	5.0	48-25454-000

SPECIFICATIONS:

1. FINISH: AS EXTRUDED
2. CONTOUR DEFINITION IS CONTROLLED BY CAD DATASET. CAD DATASET TO BE PROVIDED BY F/L.
3. TOLERANCES OTHER THAN NOTED PER ANSI H35.2.

CHG	JOB NO	DATE	BY	REVISION
-	P08753-01	11/17/99	DPK	INITIAL RELEASE