

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

**FABRIC, VINYL COATED, MULTI-PURPOSE
POLYURETHANE FOAM LAMINATE**

WSD-M2F178-A

1. SCOPE

The material defined by this specification is an expanded vinyl coated knitted fabric flame laminated to polyether urethane foam.

2. APPLICATION

This specification was released for material used in interior trims as a covering for door panel inserts.

3. REQUIREMENTS

Material specification requirements are to be used for initial qualification of materials.

In addition to the requirements listed herein, this material shall meet all requirements of the WSS-M8P3-D1/D3, PERFORMANCE, FLEXIBLE POLYMERIC FILM, INTERIOR QUALITY material performance specification except for SEAT BELT WEAR, RESISTANCE TO FLEX FOLD, BREAKING STRENGTH AND SEAM STRENGTH. Assemblies specifying WSD-M2F178-A must also meet the requirements of the WSS-M15P4-E, INTERIOR TRIM, ASSEMBLY PERFORMANCE specification.

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.4 APPEARANCE (FLTM BI 109-01)

The color, pattern and finish shall match the approved master sample, or shall be as specified on the engineering drawing.

3.5 VINYL COATED FABRIC

3.5.1 *Backing Fabric (See para 5, General Information)

*Or Engineering Approved Alternative

3.5.2 Weight, range
(ASTM D 751, sample method)

Backing Fabric	65 +/- 5 gm ²
Total (Fabric Backing and Vinyl Coating)	605 +/- 65 gm ²

Date	Action	Revisions
2003 01 13	Revised	Para 3.0 inserted ; Para 3.1, 3.2, 3.3, 3.7, 4 deleted
2001 10 02	Revised	Rev. para. 3.5.3, 3.5.6, 5.2.2.& updated D Cannon
1992 05 13	C10213032	Released N. Komatsu

Printed copies are uncontrolled



Documents

Document Sharing Hub

ENGINEERING MATERIAL SPECIFICATION

WSD-M2F178-A

3.5.3	Thickness, range, +/- 12.5 %	
	Vinyl Skin	0.240 mm
	Total	1.0 mm
3.5.4	Resistance to Tear (Trapezoid), min (ASTM D 1117)	
	Warp	55 N
	Fill	65 N
3.5.5	Breaking Strength, min (ASTM D 751, grab method)	
	Warp	350 N
	Fill	350 N
3.5.6	Stiffness, max (ASTM D 747, direct reading at 60 ° angle with a 0.01 N-m moment weight)	
	Warp	21
	Fill	17
	Note : These values are for guidance only. Acceptable stiffness values are to be agreed as part of the Manufacturing Control Plan for the part.	
3.5.7	Low Temperature Impact, min (FLTM BN 128-01, - 35 °C)	4 J
	Original	
	Heat Aged (7 days at 80 °C)	
	No visible cracking when tested as received and after heat ageing.	
3.5.8	Dimensional Stability, 15 minutes at 100 °C, max. (SAE J883, oven aged in ASTM E 145 oven type IIA, 150 +/- 5 air changes per hour)	
	Warp	+/- 2 %
	Fill	+/- 1 %

3.6 ADDITIONAL REQUIREMENTS FOR FLAME LAMINATED MATERIALS

3.6.1	Vinyl Coated Face Material	
	As specified in para 3.5.	
3.6.2	Polyether Urethane Foam	
	As specified in WSD-M2D243-A2	
3.6.3	Total Weight, range, +/- 10 % (ASTM D 751, sample method)	900 gm ²