



LAMINATE, POLYVINYL CHLORIDE + ABS BLEND (PVC+ABS) SKIN/POLYOLEFIN (TPO) FOAM/RIGID SUBSTRATE, FORMED TRIM ASSEMBLY

WSB-M98D18-B2

1. SCOPE

The material defined by this specification is a formed assembly consisting of a polyolefin foam fused to a PVC+ABS blend cover material, and this laminate is vacuum formed and adhesively bonded to a rigid substrate.

2. APPLICATION

This specification was released originally for material used in a floor console trim ring, in the high U.V. and high heat instrument panel environment.

3. REQUIREMENTS

In addition to the requirements listed herein, this material shall meet all requirements of the WSB-M8P3-C, PERFORMANCE, FLEXIBLE POLYMERIC FILM, INTERIOR QUALITY material performance specification. Assemblies specifying WSB-M98D18-B2 must also meet the requirements of WSB-M15P4-D, INTERIOR TRIM-ASSEMBLY PERFORMANCE SPECIFICATION, unless otherwise specified on the Engineering Drawing. The applicable requirements of WSB-M15P22-B, PERFORMANCE, INSTRUMENT PANEL COVER AND POLYURETHANE FOAM ASSEMBLY must be met when this material is used for an instrument panel application.

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 FOAM/SKIN LAMINATE

3.4.1 Dimensions (Foam/skin laminate thickness)

PVC+ABS skin	0.523 - 0.676 mm
TPO foam	2.700 - 3.200 mm
Total	3.223 - 3.876 mm

Test Method: Cut several 12.7 x 75 mm samples from separate areas of the test specimen and examine the cross sectional view of the skin to foam laminate using a measuring magnifier (ex. Bausch & Lomb's Measuring Magnifier (7X), Catalog No. 81-34-35 with the system scale No. 81-34-37, or equivalent). Measure the thickness of each component and the total thickness of the laminate at several points along the cut surface of the cross section.

3.4.2 Tensile Strength, min (ISO 1798/ASTM D 3574, Test E, 50 mm bench marks, 5 specimens min, any direction)

2.1 MPa

Date	Action	Revisions
2006 09 27	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.6 & 4
1994 11 10	Released	NB00110043054387



3.4.2.1	Elongation, min (Test according to 3.4.2)	165%
3.4.3	Tear Strength, min (ISO 34, Method B, Procedure A/ ASTM D 1004, any direction)	12 kN/m
3.4.4	Hardness, Durometer A, range (ASTM D 2240, 15 s dwell, test with vinyl side up)	50 +/- 5
3.4.5	Adhesion of Top Film to Foam, min (ISO 2411, Standard Method, 300 mm/minute (NAAO)/FLTM BN 151-05 (EAO), any direction)	
	Room Temperature	0.5 kN/m
	After 30 minutes at 102 +/- 3 °C (condition 30 minutes at RT and test)	0.5 kN/m
3.4.6	Resistance to Abrasion, min (FLTM BN 108-02, CS-10 wheels, 1000 g load)	500 cycles
	The surface shall show no evidence of wear through, and the color of the abraded area shall be compatible in appearance with the adjacent unabraded area.	
3.4.7	Resistance to Migration Staining and Blocking (FLTM BN 103-01)	
	No evidence of injurious exudation, adhesion (tackiness), separation, color transfer, staining, or flattening of embossing when placed face to face with itself and the standard vinyl test material. In addition, place face to back to assure any adhesion promotor does not cause undesired adhesion.	
3.4.8	Coating Adhesion (FLTM BI 106-01, Method C)	
	The tape shall not lift or delaminate the surface coating.	
3.4.9	Crazing	
	The PVC+ABS skin surface of the laminate shall not exhibit crazing or whiteness when folded or creased.	
3.4.10	Dimensional Stability (SAE J883, 7 d at 90 +/- 2 °C)	
	MD & AMD	+/- 10%
	Shall show no evidence of delamination or blistering.	