



POLYVINYL CHLORIDE (PVC), TOE PAD, FOOTREST COVER

WSS-M2D103-A1

1. SCOPE

The material defined by this specification is a vinyl chloride used for the toe pad, footrest cover for the non driver foot region on the main floor carpet.

2. APPLICATION

This specification was released originally for material used as the toe pad, footrest cover on carpeted floors.

3. REQUIREMENTS**3.1 APPROVED SOURCES**

This specification requires the use of approved sources. Only the sources identified on the Ford Approved Source List (ASL) can be used when this specification is listed on the drawing, CAD file, or other documents. The list of approved sources is located within Ford at www.mats.ford.com or available externally through a Ford Materials Engineer.

3.2 CONDITIONING AND TEST CONDITIONS

All test values are based on material conditioned for not less than 24 h prior to testing in a controlled environment of 23 +/- 2 °C and 50 +/- 5% relative humidity. Testing of the material should occur in the conditioning environment or soon after removal.

3.3 INFRARED SPECTROPHOTOMETRY AND/OR THERMAL ANALYSIS

IR spectra and thermograms from initial material approval shall constitute the reference standard and shall be kept on file at the designated material laboratory. The material supplier shall ensure that all future material supplied to the specification shall produce IR spectra and thermograms that correspond to the reference standard when tested under the same conditions.

3.4 PERFORMANCE CRITERIA

In addition to the requirements listed herein, the component shall also meet all requirements in WSS-M15P37-C/latest and any additional SDS requirements.

3.5 MATERIAL PROPERTIES

3.5.1 Density (ISO 1183, Method A) 1.4 g/cm³ max

3.5.2 Hardness (ISO 868/ASTM D 2240, 6 mm thick plied-up specimens, 15 s delay) 77 – 97 Shore A

Date	Action	Revisions	Rev 00
2017 04 19	Released		



Documents

Document Sharing Hub



- 3.5.3 Elongation at Break
(ISO 37, Type 2 specimen, 75 x 4 x 2.0 +/- 0.2 mm
500 mm/minute test speed) 175% min
- 3.5.4 Tear Strength
(ISO 34-1, Method B, Procedure A/
ASTM D624, Die C) Report
- 3.5.5 Bend Over Mandrel
(Hold at -30°C for 24 h,
bend over a 25.4 mm mandrel) No Cracking

3.6 HEAT AGING

(ISO 188, 1000 h at 80 °C +/- 2 °C)

- 3.6.1 Hardness Change
(Test Method per para 3.5.2) +/- 15% from original data
- 3.6.2 Elongation at Break Change
(Test method per para 3.5.3) +/- 15% from original data
- 3.6.3 Bend Over Mandrel
(Test method per para 3.5.5) No Cracks

4. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of this specification. Contact gmfs@ford.com for questions concerning Engineering Material Specifications.

4.1 MATERIAL IDENTIFICATION FOR RECYCLING PURPOSES
(ISO 18064)

>PVC<

Table 1: Minimum Sample Size

Para.	Test	Initial Approval			New Manufacturing Location for Previously Approved Material		
		Minimum Lots	Specimens per Lot	Total Test Specimens	Lots	Specimens per Lot	Total Test Specimens
3.5.1	Density	1	3	3			
3.5.2	Hardness	1	5	1			
3.5.3	Elongation	1	5	5	1	5	5
3.5.4	Tear Strength	1	5	5	1	5	5
3.5.5	Bend over Mandrel	1	3	3			
3.6.1	Hardness Change	1	5	5			
3.6.2	Elongation Change	1	5	5			
3.6.3	Bend Over Mandrel	1	3	3			

4.2 APPROVAL OF MATERIALS

Suppliers desiring approval of their materials shall first obtain an expression of interest from Purchasing, Design or Product Development, and Materials Engineering. The supplier shall submit a completed copy of their laboratory test reports, signed by a qualified and authorized representative of the test facility, demonstrating full compliance with all the requirements of the Material Specification. Tested material samples must be available for review upon request and kept for a minimum of one year. Upon request, the supplier will review the associated quality control documents (Process Failure Mode and Effects Analysis, Control Plans, Certification testing) with Ford.