



FLEXIBLE COVERSTOCK, SLUSH MOLDABLE POLYVINYL CHLORIDE (PVC) OR POLYVINYL CHLORIDE ALLOY, SEAMLESS INSTRUMENT PANEL

WSS-M4D985-A3

FLEXIBLE COVERSTOCK, SLUSH MOLDABLE POLYVINYL CHLORIDE (PVC) OR POLYVINYL CHLORIDE ALLOY, SEAMLESS INSTRUMENT PANEL REDUCED EMISSION

WSS-M4D985-A4

1. SCOPE

The material defined by this specification is a dry blended, slush molded polyvinyl chloride or polyvinyl chloride alloy skin that is UV stabilized, heat stabilized, and has excellent low temperature ductility used for soft doors or seamless instrument panels.

2. APPLICATION

This specification was released originally to be used as a flexible molded skin for the seamless instrument panel over foam and plastic substrate for the 2010 Fusion/Milan/MKZ. A4 suffix is released originally for vehicles in China region with lower VOC requirements for flexible molded skin for the seamless instrument panel over foam and plastic substrate.

2.1 LIMITATIONS

- If the plastic substrate is an olefin based material, the substrate must be pretreated with either adhesion promoter, flame, or plasma treatment and no slip agent should be present unless validated with the slip agent.
- If the plastic substrate is a styrenic based material, the PVC should not come in direct contact with the substrate or chemical compatibility testing must be performed.
- No topcoat is required, but may be painted for two-tone applications and must be tested to WSS-M2P188-B1/latest.

3. REQUIREMENTS

- This material must meet the requirements in WSS-M15P45-C/latest and also WSS-M2P188-B1/latest if painted.
- WSS-M4D985-A4 only - Materials used in interior applications must meet the requirements outlined in WSS M99P2222-F1/Latest, Performance, Vehicle Interior Environment Quality Material/Component Requirements. Data must be included in material submission package.
- The final assembly must meet the IP and PAB SDS requirements for each new vehicle program.

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.

Date	Action	Revisions	Rev. 01
2017 05 23	Released	WSS-M4D985-A4	T Guo APA
2010 01 07	Activated	Released A3	C.Boes / A. Bankowski, NA

**3.2 TEST SPECIMEN****3.2.1 Preparation of Test Specimens**

Unless otherwise specified, all tests shall be carried out on specimens die cut from unformed sheets.

3.2.2 Density 1.15 – 1.20 g/cm³
(ISO 1183, Method A)

3.2.3 Hardness, Durometer A 70 +/- 10
(ISO 868, 15 s dwell)

3.2.4 Tensile Strength at Max Load 8.0 MPa min
(ISO 37, Type 1, 500 mm/minute test speed)

3.2.4.1 Elongation at Break 300% min
(Test Method according to para 3.2.4)

3.2.5 Cold Flexibility at -40 °C No cracks
(180° bend over a 20 +/- 1 mm diameter mandrel, sample size 50 x 150 +/- mm)

3.2.6 Tear Strength 30 kN/m min
(ISO 34, Method B, Procedure A, 50 mm/minute test speed.)

3.2.7 Heat Aging Performance
(ISO 188, except 150 +/- 50 air changes/h, 1000 h at 120 °C, unaged property values shall be determined at the time of the aged properties determination)

3.2.7.1 Tensile Strength Change -25% max

3.2.7.2 Elongation at Break, Change from Original Value -50% max
(100% absolute elongation minimum)

3.3 FOGGING

(SAE J1756, 3 h at 100 °C heating, 21 °C cooling plate, post test conditioning 16 h)

Fog Number 70 min

Formation of clear film, droplets or crystals is cause for rejection.

3.4 FLAMMABILITY

(ISO 3795)

Burn Rate 100 mm/minute max

The specimen size required for material approval is approximately 355 x 100 x 13 mm. The thickness must be documented on the report.