THERMOPLASTIC ELASTOMER, OLEFINICS (TEO), EPDM MODIFIED INTERIOR APPLICATIONS

WSS-M2D510-A4
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1. SCOPE

These specifications define the requirements for thermoplastic elastomer olefinics EPDM modified with a durometer hardness of less than 95, Type A. These materials are used primarily for visible automotive interior passenger and storage compartments applications.

Note: The materials within this series of specifications are distinguished by application and durometer hardness (see table in paragraph 3.2.3).

2. APPLICATION

These specifications were originally released to initially qualify color-keyed passenger compartment materials used in non-structured trims, boots, gimps, gap-hiders, and similar interior components. These materials are not recommended for applications where oils, lubricants, solvents, or similar hydrocarbons are encountered, temperatures greater than 100 °C, nor for high compression applications under constant load because of creep deformation behavior.

3. REQUIREMENTS

The requirements defined in these specifications represent the minimum acceptance criteria for material performance prior to their manufacture into finished articles. Exceptions to these requirements are to be documented in the Ford Motor Company Approved Source List (ASL) upon approval.

Approval to this specification is dependent upon the verification of impending actual part or component approval based on performance in-vehicle as described in a "Functional Report." This report form may be obtained from Ford Materials Engineering at the authorization of the appropriate design and release activity.

Component/assembly must be evaluated according to specification WSS-M15P4-E, "Interior Trim, Assembly Performance", and according to applicable SDS, DVM or system requirement documents.

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

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

Final compliance to the function and design requirements for specific applications must include the key life test requirements, or vehicle program requirements.

Date	Action	Revisions
2007 02 08	Activated	M. Curolo, Y. Bankowski

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3.2 ADDITIONAL REQUIREMENTS

The following requirements shall be assessed on laboratory-prepared test specimens or commercially produced injection molded or extruded materials. Laboratory-prepared materials shall be produced by equivalent process parameters and formulations as the finished article.

No discoloration, mottling, bloom, mold release or other surface condition detrimental to part functioning or appearance is permitted following molding and/or extrusion.

The following evaluations may be performed on injection molded or extruded materials specifically intended for laboratory evaluation. Material colors tested are to be agreed upon between the supplier(s) seeking approval and Ford Materials Engineering. A minimum of one lot of material shall be natural and one lot shall be black pigmented. Natural shall be included as part of the weathering evaluation. All lot data identification shall be retained and evaluated as part of the approval process.

The following tests are to be performed on materials having surfaces identical to that of the finished article (i.e., grained, textured, colored, etc.)

3.2.2 Interior Applications Only

The following tests are to be performed on materials having surfaces identical to that of the finished article (i.e., grained, texture, colored, etc.).

3.2.2.1	Fogging (SAE J1756, 3 h at 100 °C heating, 21°C Cooling Plate, post test conditioning 1 h and 16 h)	
	Fog Number, min	70
	Formation of clear film, droplets or crystals is cause for rejection.	
3.2.2.2	Odor (FLTM BO 131-01), max	Rating 2
3.2.2.3	Flammability (ISO 3795/SAE J369) Burn Rate, Max	100 mm/minute
3.2.2.4	Low Temperature Brittleness (ISO 812, Type B Specimen/ ASTM D 2187, Method A), at -30 °C	No Cracking
3.2.2.5	Colorfastness to Burnt Gas 168 hours at 60 °C (ISO 105-A01/AATCC Procedure 1), min	Rating 4

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