

**THERMOPLASTIC ELASTOMER, STYRENE POLYOLEFIN
BLOCK COPOLYMER (TES), 49 DUROMETER A HARDNESS,
EXTERIOR WEATHERABLE****WSS-M2D505-A7****1. SCOPE**

The material defined by this specification is a black U.V. stabilized thermoplastic styrene-ethylene/butylene-styrene copolymer elastomer. The material possesses a good exterior weathering capability and can be processed by conventional thermoplastic molding techniques such as injection and/or extrusion molding.

2. APPLICATION

This specification was released originally for material used for cowl top ventilator grille seals and muckets.

3. REQUIREMENTS**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).

3.2 MATERIAL TESTING**3.2.1 Preparation of Test Specimens**

Whenever possible, all test specimens shall be die-cut from the finished parts. When not feasible, specimens cut from molded test sheets manufactured from the same material and with equivalent cure to the molded parts are recommended. The test sheets shall have the following dimensions:

150 x 150 mm, min x 2.0 +/- 0.2 mm

Date	Action	Revisions	Rev. 01
2013 08 02	Revised	Changed Brittleness Point from -53°C to -52°C	H. Santos, FSAO
2009 02 04	Activated		K. Mueller, FNA

**3.3 ORIGINAL PROPERTIES**

3.3.1	Density, +/- 0.03 g/cm ³ (ISO 1183, Method A)	1.18
3.3.2	Hardness, Durometer A, points (ISO 868, 10 second dwell, 6.0 mm plied-up specimen)	43 – 53
3.3.3	Tensile Strength (ISO 37, test speed: 508 mm/min)	3.5 MPa min
3.3.3.1	Elongation at Break, (Test method according to para 3.3.3)	535 % min
3.3.3.2	Modulus at 100% Elongation (Test method according to para 3.3.3)	1.4 MPa, min
3.3.4	Tear Strength (ISO 34, Method B Procedure A)	
3.3.4.1	Parallel to Flow	17 kN/m min
3.3.4.2	Perpendicular to Flow	17 kN/m min
3.3.5	Brittleness Point (ISO 812, Type B specimen/ ASTM D 2137, Method A)	-52 °C max
3.3.6	Ozone Resistance (FLTM BP 101-01, Procedure A)	Rating 0 max
3.3.7	Compression Set (ISO 815, plied-up specimens, 22 h at 70 +/- 2 °C)	94 % max
3.3.8	Migration Staining (FLTM BN 103-01, ISO 105-A02/ AATCC Ev-Proc. 1)	Rating 4 min