

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

ADHESIVE, SYNTHETIC RUBBER-OIL RESISTANT

EST-M2G235-A

1. SCOPE

The material defined by this specification is a dark brown colored oil resistant synthetic rubber base adhesive.

2. APPLICATION

This specification was released originally for a material used to bond vinyl coated fiberglass cloth to ABS plastic.

3. REQUIREMENTS

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).

3.2 SOLIDS, min 15%
(ASTM D 553, except heat at 100 +/- 5 °C for 3 h, save sample for next test).

3.3 ASH, Based on Solids Weight, max 0.5%

Test Method: Place the crucible containing the solids residue in a cool muffle furnace. Slowly heat to and maintain at 760 +/- 30 °C for 1 h. Cool in desiccator and weigh.

3.4 DOUBLE COAT ADHESION STRENGTH - ENVIRONMENTAL RESISTANCE

Attach 25.4 mm wide by 150 mm long strips of EST-M12G71-A vinyl coated fiberglass cloth to EST-M4D377-A ABS plastic test panels. Prepare samples as in FLTM BU 2-1 but apply adhesive with a brush instead of using the guillotine scrape method. Immerse samples in the following fluids for 72 h at room temperature except for the reference sample which is not immersed but is aged at room temperature for 72 h. Using a Scott Tester or similar apparatus and a crosshead speed of 25.4 mm/min, conduct a peel test per FLTM BU 12-1.

3.4.1 Reference Condition, min 0.80 N/mm

3.4.2 Motor Oil, ESE-M2C144-A, min 1.00 N/mm

Date	Action	Revisions
2003 01 17	Revised	Para 3.0 inserted ; Para 3.1 3.5, 3.8, 4 deleted
1980 07 09		Released CHK2-DR-875543

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3.4.3 Diesel Fuel, ESE-M4C9-A (#2), min 0.40 N/mm

3.4.4 Antifreeze, ESE-M97B18-C, min 1.25 N/mm

3.4.5 Water, min 0.80 N/mm

3.4.6 Saltwater, Saturated, min 0.60 N/mm

3.6 SOFTENING POINT, min 100 °C
(ASTM D 816)

Test Method: Prepare the test specimens as in para 3.4 with a 1 minute open assembly time. Allow assemblies to air dry 24 h.

3.7 QUALITY

Shall be a smooth homogeneous mixture free from foreign materials and properties detrimental to normal production operations.