



TAPE, POLYURETHANE FOAM - DOUBLE COATED

ESB-M3G55-A

1. SCOPE

The material defined by this specification is a pressure sensitive polyurethane foam tape coated on both sides, protected with release paper.

2. APPLICATION

This specification was released originally for material used to retain emblems and/or moldings in the recessed areas in the console glove box door. Metal bonded parts are chrome plated CR steel (Falcon) and chrome plated zinc die castings (Comet).

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 TENSILE STRENGTH, min 100 psi (689 kPa)
(ASTM D 1564, Die "A")

Elongation, min 50%

3.3 HARDNESS, Durometer "00", min 65
(ASTM D 2240)

3.4 TEAR RESISTANCE, min 14 lb/in (2.5 kN/m)
(ASTM D 624, Die "C")

3.5 ADHESION

Adhesion shall exceed the minimum values specified below. Foam splitting is acceptable when the force to initiate the splitting exceeds the minimum adhesion requirement. If adhesion exceeds the length of the tape, the exposed side may be reinforced with flexible tape with sufficient strength to induce an adhesive or a cohesive failure.

3.5.1 Adhesion to Steel 50 oz/in (547 N/m)
(ASTM D 1000)

3.5.2 Adhesion to Painted Metal 50 oz/in (547 N/m)
(ASTM D 1000: Test panels are prepared per FLTM BI 103-02, using ESB-M50J100).

Date	Action	Revisions
2005 09 21	Revised	Inserted 3.0; Deleted 3.1, 3.11, 4
1978 11 10	Metricated & Retyped	CAH1-RD572066-175
1963 10 31	Released	AS1 #1135





3.5.3 Aged Adhesion (Painted Metal)

Failure shall be cohesive or tensile (not adhesive). The forces to initiate failure shall not be less than the values obtained in 3.5.2.

Test Method: Prepare bonded samples as described in ASTM D 1000 using test panels prepared per FLTM BI 103-02 with ESB-M50J100 enamel. Expose the samples at 70 +/- 1 °C for 72 h. Permit samples to cool at 23 +/- 2 °C for 2 h minimum prior to test.

3.6 LOW TEMPERATURE FLEXIBILITY

Shall not crack nor show any evidence of failure.

Test Method: Samples approximately 6 in (150 mm) in length shall be conditioned for 16 h at -29 °C and shall then be bent 180 ° around a 1.0 in (25 mm) diameter temperature conditioned mandrel.

3.7 MIGRATION STAIN

None

Test Method: The material shall be placed in intimate contact with a freshly painted light colored (white or blue) enameled panel and also light colored vinyl trim material, ESB-M2F76, and subjected to 200 h in the Westinghouse fluorescent sunlight cabinet described in FLTM BO 115-01.

3.8 RESISTANCE TO HUMIDITY DETERIORATION

No evidence of foam breakdown in the form of cracking or crumbling.

Test Method: Samples approximately 6 in (150 mm) in length shall be subjected to humidity aging outlined under FLTM BO 012-01 and subsequently bent 180° around a 1/4 in (6.4 mm) diameter mandrel.

3.9 ODOR

No offensive odor in the "as received" condition or after the deterioration test in para 3.10.

3.10 CELL STRUCTURE

Homogeneous, medium sized cell structure with no large voids or hard spots.