



TAPE, LOW DENSITY EPDM FOAM, PRESSURE SENSITIVE, SUPERSOFT

WSB-M3G212-A

1. SCOPE

The material defined by this specification is a supersoft, cellular, 100% EPDM component foam tape with one side adhesive coated and protected by a coated release paper.

Note: This material can be supplied extruded into very complex cross sections, die cut or in roll form.

2. APPLICATION

This specification was released originally for material used as a filler between exterior moldings and painted metal to seal against air leaks, water leaks, and wind noise. It is used in areas where low force to compress is required and may also be used to seal areas where the design requires complex extrusions.

3. REQUIREMENTS

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.

3.2 CONDITIONING AND TEST CONDITIONS

All test values are based on material conditioned for not less than 24 h prior to testing in a controlled environment of 23 +/- 2 °C and 50 +/- 5% relative humidity. Testing of the material should occur in the conditioning environment or soon after removal.

3.4 DIMENSIONS

Cross sections/dimensions as specified on the Engineering drawing.

3.5 DENSITY

(ASTM D 3574, Test A)

The density tolerance for any given supplier shall be +/- 23 kg/m³ based on the recorded density of the original approved production sample. See para 5.2.

3.6 TENSILE STRENGTH

(ASTM D 412, Die C)

350 kPa min

3.6.1 Elongation

150% min

3.7 COMPRESSION DEFLECTION

(ASTM D 1056, Test B1)

3.45 - 13.79 kPa

Date	Action	Revisions	Rev 02
2018 07 27	Revised	See Summary of Revisions	P.Konopka, NA
2006 02 08	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.17, 3.18, 4	
1993 05 01	Released	NB00E10204040000	D. DiGregorio, L. Rezendes

**3.8 COMPRESSION SET**
(ASTM D 1056, Test B1)

50% max

3.9 WATER SEAL

No leak after 60 minutes

Test Method: Wipe two glass plates with mineral spirits using a clean cotton cloth. Shape a 12 x 6 x 300 mm sample into a "U" configuration between the surfaces of the glass plates. The plates should be spaced and clamped so that the material between them is compressed 30% of the original thickness for 3.9.1 and 50% of the original thickness for 3.9.2. After the assemblies have been processed as specified below, pour water into the "U" so that the deepest point measures 100 mm. Examine the assembly after 60 minutes.

3.9.1 Condition the assembly for 30 minutes at 23 +/- 2 °C.

3.9.2 Expose the assembly for 30 minutes at 121 +/- 2 °C, then cool to 23 +/- 2 °C prior to test.

3.10 LOW TEMPERATURE FLEXIBILITY

No cracking

Test Method: Condition a minimum of three 150 mm samples of tape as received at -40 +/- 1 °C for 4 h and bend the samples 180° deg around a temperature conditioned 6.4 mm diameter mandrel.

3.11 PAINT STAINING

No migration staining

Test Method: Securely attach a 50 x 100 mm sample of the material to a 100 x 150 mm steel panel coated with currently released body enamels with top surface of foam against the paint. Expose the assembly for 500 h in a Q.U.V. cabinet described in SAE J2020. Examine for any evidence of staining beyond the boundaries of the test specimen.

3.12 PRESSURE SENSITIVE ADHESION
(ASTM D 1000)**3.12.1 Adhesion to Stainless Steel**
(SAE J1434)

500 N/m width min

If foam fails internally before peeling occurs, the maximum values at the point of internal failure must be at least as great as 440 N/m width minimum.

3.12.2 Adhesion to Painted Metal
(Substrates per para 5.3)

500 N/m width min

If foam fails internally before peeling occurs, the maximum values at the point of internal failure must be at least as great as 440 N/m width minimum.

3.12.3 Adhesion to Stainless Steel
(SAE J1434)

- Heat Resistance No adhesion failure
- Environmental Cycling Resistance No adhesion failure

Test Method:

- Apply 200 - 250 mm strips of tape as received to 2 stainless steel panels, adhesive to metal, and roll each strip once in each direction with a 2 kg roller. Remove release paper and air dry 24 h at 23 +/- 2 °C.

