



POLYURETHANE FOAM MOLDED PART FOR SOUND ABSORPTION

SK-M99G9518-A

POLYURETHANE FOAM MOLDED PART FOR SOUND ABSORPTION

▽ SK-M99G9518-B

1. SCOPE

The material defined by these specifications is a polyurethane foam based molded part with integral skin.

2. APPLICATION

This part was originally released for sound absorption in the C-pillar area between wheel arch and luggage compartment.

3. REQUIREMENTS

Material specification requirements are to be used for initial qualification of materials.

The material shall be conditioned for a minimum of 24 hours at 23 +/- 2 °C and 50 +/- 5% relative humidity prior to test and tested under the same conditions. Test shall be conducted not earlier than 72 hours after manufacture of part.

Sampling: Samples except for tests according to FLTM EU-BV 060-04 shall be cut from the finished part.

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).

3.1 COLOR

Grey to black or as specified on Engineering drawing.

3.2 DIMENSIONS (Slide gauge)

Thickness between 10 mm and 19 mm or according to the Engineering drawing.

3.3 ASH, max (FLTM BV 150-10)

5%

3.4 DENSITY, min (ISO 1855, with integral skin)

70 kg/m³

3.5 TENSILE STRENGTH (ISO 1798)

3.5.1 Original, min

11 N/cm²

3.5.2 Elongation at Break, min

25%

Date	Action	Revisions
2006 10 25	Revised	Inserted 3.0; Deleted 3.19 & 4
1994 12 16	Revised and Retyped	Was 12 pages
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3.6 COMPRESSION SET, max
(ISO 1856, Method A, 50%, 22 h, 70 °C)

50%

3.7 COMPRESSION LOAD DEFLECTION
(FLTM EU-BO 052-01, except specimen size:
50 x 50 x 50 mm +/- 2 mm)

3 - 8 N/cm²

3.8 RESISTANCE TO HUMIDITY AGEING
(ISO 2440, 105 °C, for 3 h)

3.8.1 Change of Compression Load Deflection

Maximum 10 % based on measured original value according to 3.6.

3.9 ADHESION OF SURFACE FILM TO FOAM

The surface film shall not be removed without being destroyed.

Test Method:

- 1) Cut into the skin of the finished part an area of 25 x 250 mm with a razor blade.
- 2) Cover the area with tape according to SK-M3G9500-A and press down firmly.
- 3) Remove the tape from test piece in a tensile testing machine at an angle of 3.14 rad and a test speed of approx 500 mm/minimum.

3.10 HEAT STABILITY
(24 h at 90 +/- 2 °C, 1 h at relative humidity)

The finished part shall show no evidence of delamination, no visible shrinkage or distortion, respectively it shall not warp to an extent that would affect its use in ultimate assembly.

3.11 TEMPERATURE CYCLING TEST

No change when compared with the original part.

Test Method:

- 1) The finished part shall be subjected 3 times to the following cycle:
 - 3 h at 80 +/- 2 °C
 - 1 h at room temperature
 - 3 h at -30 +/- 2 °C
 - 1 h at room temperature
 - 16 h at 38 +/- 2 °C and 98 +/- 2% relative humidity
- 2) Examine after conditioning at room temperature for 24 hours.