



SOUND BARRIER, RECLAIMED POLYETHER-BASED URETHANE FOAM COMPOSITE

WSS-M99G133-A3

1. SCOPE

The material defined by this specification is a composite of granulated polyether-based urethane foam and other process materials, such as adhesive, films, release liner, etc. The granules are bonded together with a polyether urethane-based adhesive. This material can be laminated with adhesives and films or scrim cloth.

2. APPLICATION

This specification was released originally as a sound and heat insulation on rear floor ducts.

3. REQUIREMENTS

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

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).

3.4 CONSTRUCTION

The foam granule size to be approximately 6 mm diameter with a uniform distribution of any other process materials present.

3.5 THICKNESS

As specified on Engineering Drawing

3.6 DENSITY, kg/m³ (ISO 845/ASTM D 3574, Test A)

95 – 160

3.7 TENSILE STRENGTH, kPa, (ISO 1798/ASTM D 3574, Test E)

Rate & Report

3.8 ELONGATION @ BREAK, % (ISO 1798/ ASTM D 3574, Test E)

Rate & Report

3.9 TEAR STRENGTH, N/m, min (ISO 8067/ASTM D 3574, Test F, 50 mm/min)

90

3.10 COMPRESSION SET, %, max (ISO 1856, Method A/ASTM D 3574, Test D, 22 h at 70 °C, 50% deflection)

20

Date	Action	Revisions
2006 09 21	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.20, 3.21 & 4
2000 01 31	Activated	



- 3.11 COMPRESSION DEFLECTION, kPa**
(ISO 3386-1, specimen size 50 x 50 x 25 mm)
- At 25% compression 5 – 10
At 50% compression Rate & Report
- 3.12 AIRFLOW, m³/m²/minute, max**
(ASTM D 3574, Test G) 15
- 3.13 FLAMMABILITY, mm/min, max**
(ISO 3795/SAE J 369) 100
- 3.14 FOGGING**
(SAE J1756, 3 h at 100 °C heating, 21 °C cooling plate, post test conditioning 1 h and 16 h)
- Fog Number, min 70
- Formation of clear film, droplets or crystals is cause for rejection.
- 3.15 ODOR, max**
(SAE J 1351) Rating 2
- 3.16 HEAT AGING PERFORMANCE**
(1000 h at 125 °C)
- Change in Tensile strength, %, max 40
Change in Compression Set, %, max 25
- 3.17 COLD FLEXIBILITY**
No cracking or delamination
- Test Method:
- Cut two test specimens 50 x 150 mm.
- Age test samples for 4 h at an ambient temperature of –24 °C.
- Bend the two test samples 180° around a temperature conditioned 25 mm diameter mandrel.
- 3.18 SOUND ABSORPTION**
(ASTM E 1050, 10 data points over 100 – 10K Hz range, and for 5, 10, 15, 25 mm thick specimens) Rate & Report
- 3.19 FUNGAL RESISTANCE (when specified on drawing)**
(ASTM G 21, must use pre-approved fungicide) No growth

5. RECYCLING CODE

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