



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

SOUND AND HEAT BARRIER MAT, MOLDED
SOUND AND HEAT BARRIER MAT, MOLDED

SK-M99G9509-A
DELTA SK-M99G9509-B

1. SCOPE

The material defined by this specification is a molded multi-ply sound and heat barrier part consisting of a synthetic resin bonded non-woven natural and/or synthetic fiber padding and with both sides faced with an embossed aluminum foil.

2. APPLICATION

This material is used as an acoustical and heat insulating pad for carpet or rubber mat underlay and/or as specified on the Engineering Drawing, where good heat stability is required.

3. REQUIREMENTS

All test values indicated in this specification are based on materials conditioned at 23 +/- 2 C and 50 +/- 5 % relative humidity for 24 h prior to test and tested under the same conditions.

3.1 ALUMINUM FOIL

3.1.1. Thickness, max 0.15 mm

3.2 FIBER PAD

3.2.1 Thickness 12.5 mm +/- 15 % or as specified
(300 x 300 mm specimen on Engineering drawing
at 24 Pa loading)

3.2.2 Density 50 - 70 kg/m3
(ASTM C 167, except compute thickness from
300 x 300 mm specimen at 24 Pa loading)

Date	Release No.	Released
1994 12 16		Revised and Retyped, was 11 pages
1980 05 14	B/420954 TP	Revised 3.3.4; sheet 1, 3, 4, 11
1974 06 12	SM/ET 0759 TP	Released

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3.3 ASSEMBLED PART

3.3.1 Splitting Resistance, min 2 kN/m²

Test Method: (See Figure 1)

- 1) Three test specimens 100 x 100 mm cut from a molded part shall be bonded to two specimen holders each using adhesive S-M2G4610-A and conditioned for 24 hours at room temperature.
- 2) Determine splitting resistance in a tensile testing machine at a rate of pull of 25 mm/minute.

3.3.2 Compression Set, max 35 %
(ASTM D 1564, Method B, 50 % compression
22 h at 23 +/- 2 C and 50 +/- 5 % relative
humidity. Measure final thickness of test
specimen 1 h after removal from apparatus)3.3.3 Thermal Conductivity, max 0.048 W/mK
(ASTM C 177-71 or C 518-70, based on a
mean temperature of test of 110 C,
specimen thickness max 15 mm)3.3.4 Sound Absorption According to Figure 2
(ASTM C 384)

Note: Five samples shall be cut from the molded part. Carefully remove aluminum foil from one side of the fiber felt (fiber felt towards sound source). Samples for measuring in the small tube shall be cut from the center of the sample needed for the great tube after measuring the latter.

3.3.5 Mildew Resistance

The material shall be free from mildew and malodor.

Test Method: Place a 100 cm² area of test material soaked with distilled water in a beaker glass of 1 litre capacity and cover tightly with a lid. Maintain assembly at a temperature of 35 +/- 2 C for 336 hours. Remove lid and examine as described above.

3.3.6 Flammability

3.3.6.1 SK-M99G9509-A No requirement

DELTA 3.3.6.2 SK-M99G9509-B

Burn Rate, max 100 mm/minute