



BARRIER, ACOUSTICAL

WSS-M5G52-B

1. SCOPE

This classification system is used to identify the performance levels required from sound barrier materials used in automotive applications.

2. APPLICATION

This specification was released originally for materials used as sound transmission barriers.

3. REQUIREMENTS

3.1 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 FLAMMABILITY

(ISO 3795/SAE J369)

Burn Rate, max

100 mm/minute

3.3 SOUND TRANSMISSION LOSS

(SAE J1400, or as specified on initial engineering drawing)

Required for approval only

Unless otherwise specified on the engineering drawing, the sound transmission loss shall meet or exceed the calculated "mass law" Sound Transmission Loss (STL) values from 125 or 4000 Hz for every one-third octave within the precision described in ASTM E 90.

Mass Law: $STL (dB) = 20 \log (\text{weight}) + 20 \log (\text{frequency}) - 47.2 \text{ dB}$

Weight in kg/m^2
Frequency in Hz

3.4 ODOR

(FLTM BO 131-01)

Rating 2

Test Method: Samples heated in a closed container for a minimum of 2 h at 100 +/- 2 °C

3.5 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.

Date	Action	Revisions
2003 07 18	Activated	



Documents

Source: Documents Sharing Hub

**3.6 ADDITIONAL LINE CALLOUT REQUIREMENTS**

Shall be specified
on engineering
drawing and approved
source list

Create a seven character line callout for the material using the classification system below.

3.6.1 First Character**Material Type****Code Letter**

not specified
polyvinyl chloride
ethylene vinyl acetate
urethane
plastisol
reclaimed PVC/fabric
reclaimed elastomer thermoplastic blend
special requirement

A
B
C
D
E
F
G
Z

**3.6.2 Second Digit Mass,
tolerance +/- 10 %
(ASTM D 461)****Mass****Code Number**

0.49 kg/m² =
1.46 kg/m² =
2.44 kg/m² =
3.66 kg/m² =
4.88 kg/m² =
special requirement =

1
2
3
4
5
9

**3.6.3 Third Digit Specific
Gravity, tolerance +/- 5 %
(ASTM D 792)****Specific Gravity
Code Number**

1.32 =
1.70 =
1.80 =
1.90 =
2.10 =
2.30 =
2.50 =
special requirement =

1
2
3
4
5
6
7
9

**3.6.4 Fourth Digit Tear
Strength, min
(ASTM D 624, Die C)****Tear Strength****Code Number**

3.5 kN/m =
10 kN/m =
20 kN/m =
30 kN/m =
40 kN/m =
50 kN/m =
special requirement =

1
2
3
4
5
6
9