

**HOLDEN**

GM Holden Limited
Engineering Department

MATERIAL SPECIFICATION

NUMBER : HN 2470
SHEET : 1 of 4
RELEASE : June, 2006
REVISION : September, 2006

NAME: ACOUSTIC POLYURETHANE FOAM (FOR SPECIFIC PART)

1. MATERIAL

The material described in this specification is a cast semi-closed cell polyurethane foam.

Note: This specification refers specifically to GM Holden Part Number 92184633 Insulator-Front Fender.

2. REFERENCES

GMW3059	HN 1000	ASTM 412	MVSS 302
AS 1045	AS 2282		

3. APPLICATION

Used as a seal to attenuate engine and road noise.

4. SPECIFIC REQUIREMENTS

	Property	Specification	Requirement
4.1	Density, g/l	AS 2282	22 +/- 3
4.2	Thickness, mm	-	19 +/- 3
4.3	Tensile Strength, kg/cm ²	ASTM 412	2.4 +/- 0.4
4.4	Elongation, %	ASTM 412	90 +/- 5
4.5	Tear Strength, kg/cm	AS 2282	0.85 +/- 0.1
4.6	Compression Set %, 50% Deflection 24 hr. @ 70°C	AS 2282	15 max.
4.7	Cold Resistance at -30°C 24 hrs. 180° Bend	AS 2282	no cracks

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4. SPECIFIC REQUIREMENTS (continued)

	Property	Specification	Requirement
4.8	Flammability, mm/min	MVSS 302	100 max
4.9	Odour	-	No objectionable odour.
4.10	Noise Reduction Co-efficient, AS 1045	AS 1045	0.38 min
4.11	Water Absorption	-	2% max, by weight

5. FLEXIBILITY TEST

5.1 Method (refer to **Figure 1**)

- (i) Place the part on a flat surface (table), align the apex of the arrow (on the part) with the edge of the table and allow the part to sag.
- (ii) Use a straight edged long ruler and place on the table next to the part to represent the part with no sag.
- (iii) Use a second ruler and measure amount of sag from the bottom of the part to the bottom of the straight edge.

5.2 Acceptance:

The minimum acceptance sag is 150mm.

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