

**HOLDEN**

Holden Limited
Engineering Department

MATERIAL SPECIFICATION

NUMBER : HN 2256
SHEET : 1 of 3
RELEASE : January, 1997
REVISION : February, 2000

NAME: BATTERY FOAM COVER

1. SCOPE

The material defined by this specification is a closed cell polyolefin foam for use as a cover for the battery for insulation against excessive high temperatures.

2. PROPERTIES

2.1 Foam Density (JIS K6767 Clause 5.1)

The density of the foam shall be in the range of 30 - 35 kg/m³.

2.2 Compression Strength (JIS K6767 Clause 5.3)

The compression strength of the foam shall be 0.40 kg/cm² minimum @ 25% compression and 1.07 kg/cm² minimum @ 50% compression.

2.3 Compression Set (JIS K6767 Clause 5.4)

The compression set of the foam following compression @ 25% for 72 hours shall be 10 % maximum and @ 50% for 72 hours shall be 30% maximum.

2.4 Tear Resistance (JIS K6767 Clause 5.6)

The tear resistance of the foam shall be 1300 N/m min.

2.5 Tensile Strength (JIS K6767 Clause 5.2.1 Method A)

The tensile strength of the foam shall be 200 kPa min.

2.6 Elongation (JIS K6767 Clause 5.2.1 Method A)

The elongation at break of the foam shall be 80 % min.

2.7 Water Absorption (JIS K6767 Ref. II Method A)

Water absorption of the foam shall be < 1% in volume.

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2. PROPERTIES (continued)

2.8 Dry Heat Ageing (AS 2282.10)

After exposure to dry heat (as per clause 3.1 of AS 2282.10) at 100 °C for 7 days the foam material shall have a tensile strength change of 20 % maximum. In addition, the foam material shall not exhibit any indication of deterioration or any other defects which will affect the engineering intent and serviceability of the part.

2.9 Flammability (GM 6090M)

The material or materials used for the part or assemblies shall not burn, nor transmit a flame front across its surface, at a rate of more than 100 mm per minute when tested in accordance with GM 6090-M (B4-A).

If the material stops burning before it has burned for 60 seconds from the start of burning and has not burned more than 50 mm from the point where timing was started, it shall be considered to meet the required burn rate.

2.10 Acid Resistance

Ten drops of battery acid shall be placed on both the foam and the film and left undisturbed for 24 hours. After exposure, the battery acid is to be removed and the materials examined. No swelling, deterioration or any other defect which will affect the engineering intent or serviceability shall be observed.

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