

**HOLDEN**

GM Holden Limited
Engineering Department

MATERIAL SPECIFICATION

NUMBER : HN 2369
SHEET : 1 of 4
RELEASE : November, 2000
REVISION : October, 2007

NAME: BUTYL TAPE-EXPANDING

1. SCOPE

This specification details the requirements of a butyl sealing tape used as a physical barrier to prevent corrosion between dissimilar materials. Tape must be composed of a homogeneous material free of air, lumps, unmixed particles and foreign materials. The material shall be asbestos free and easily removed from its backing paper.

Material must have good adhesion to oily substrates including Cold Rolled Steel (CRS), Electro-galvanised (EG), Hot Dipped Galvanised (HDG), zinc anneal and Aluminium. The butyl sealing tape must expand during E-coat oven, protecting the sealant/E-coat boundary from undercutting corrosion.

There are two types of this material:

Type 1: Butyl material with both sides tacky

Type 2: Butyl material with one side tacky and the other side containing a compatible non-tacky layer for ease of application on the production line

2. REFERENCES

GM9010P
HN 1000

GM9832P
GMW3059

HN 0214

GM9763P

3. REQUIREMENTS

3.1 Physical Properties

3.1.1 Specific Gravity

Typically 1.55, however, an individual specific gravity range, for each approved source, shall be set at the time of approval to this specification. This specific gravity range shall then become a requirement of that approved material.

3.1.2 Solids Content (GM9010P)

>99% min by weight

3.1.3 Cone Penetration (150g, 6s, 25°C)

5.5- 7.0 mm

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NUMBER : HN 2369
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NAME: BUTYL TAPE-EXPANDING

3. REQUIREMENTS (continued)

3.1 Physical Properties (continued)

3.1.4 Expansion

15-60% after curing through Bodyshop and Paintshop ovens.

3.1.5 Colour

The material must be black in colour

3.1.6 Odour (GM9832P)

The butyl tape must not have a toxic or noxious odour. After curing, the tape must be relatively non-odourous. In addition, the ED50 value of its odour may be requested at the time of approval.

3.1.7 Toxicity

The material must not adversely affect the personnel handling it.

3.2 Performance Requirements

3.2.1 Corrosion Resistance (HN0214)

Butyl tape is attached between two 300mm x100mm x 10mm CRS panels separated by a 5 mm gap. Panels shall exhibit no corrosion of the steel in areas underneath the butyl sealing tape after 20 days of scab corrosion testing as per HN0214.

3.2.2 Stability Requirements (GM9763P)

Material conditioned as described below must be able to pass all requirements of this specification.

3.2.3 Elevated Temperature Stability

The sealer, as shipped, must be capable of withstanding 72h @ 43°C.

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