

**HOLDEN**

Holden Limited
Engineering Department

MATERIAL SPECIFICATION

NUMBER : HN 2122
SHEET : 1 of 4
RELEASE : December 1995
REVISION : February, 2003

NAME: ADHESIVE TAPE - ABRASION RESISTANT

1. SCOPE

This specification covers a thermoplastic, polyester elastomer film precoated with an acrylic pressure sensitive adhesive protected with a silicone release liner. This film is designed to provide surface protection against scratches, stone chips, chafing, and mechanical wear. This film has a maximum service temperature of 135 °C. Both film and adhesive are transparent. This material can also serve as a stencil for etching information on glass.

2. REFERENCED STANDARDS

ASTM D882	ASTM D1938	GM9505P	HN 1000
PSTC1	SAE J400		

3. PROPERTIES

3.1 Physical Properties
See Table 1

TABLE 1

Properties	Values
Color	Clear
Film thickness	0.075 mm
Adhesive thickness	0.05 mm
Total thickness	0.13 ± 0.02 mm

3.2 Film Performance

All tests shall be performed at ambient conditions, 22 ± 3 °C and 55 ± 5% RH, unless otherwise indicated.

3.2.1 Tensile Strength (ASTM D882)

The film shall exhibit a tensile strength of 10 MPa ± 10% when evaluated per ASTM D882, Method A, at a rate of 300 mm/minute. The jaw separation shall be 102 mm.

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3. PROPERTIES (continued)

3.2 Film Performance (continued)

3.2.2 Elongation (ASTM D882)

The film shall exhibit an elongation at break of $130 \pm 10\%$ when tested as described in 3.2.1.

3.2.3 Tear Strength (ASTM D1938)

The film shall exhibit a tear strength of $1.8 \pm 0.4\text{kg}$.

3.2.4 Taber Abrasion (SAE J1847)

There shall be a maximum of 0.1 g mass loss when tested per SAE J1847, 1000 cycles, 1kg load, H18 abrading wheel.

3.2.5 Gravelometer (SAE J400)

The film shall exhibit a rating of 10 or better when tested according to SAE J400, using a temperature of $-30 \pm 2^\circ\text{C}$.

3.3 Adhesion Performance

3.3.1 Peel Adhesion (PSTC1)

When bonded to stainless steel, the pressure sensitive adhesive backed film must maintain a peel strength of $740\text{ N/m} \pm 10\%$. This bond strength must be maintained following a minimum of 72 h at ambient conditions and all environmental exposures (See 3.4).

3.3.2 Test Procedure

Bond 150 mm of a 25 x 300 mm sample of the adhesive backed film to the stainless steel. Allow the assembly to dwell 72 h at ambient conditions prior to exposure. Following exposure, fold back the extended (unbonded) portion of the sample to a 180° angle. Peel the sample at a rate of 300 mm/minute using an Instron, or equivalent, constant rate of extension (CRE) machine.

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