



ENGINEERING STANDARDS

Material Specification

LIMITED USE
HN1555

Film Adhesive - Pressure Sensitive Acrylic

Do Not Use on New Programs; No Replacement

1. SCOPE

A form of pressure sensitive adhesive dry film protected with release paper. The thickness of this material is sufficient to adhere satisfactorily to textured or uneven surfaces plus where some surface mismatch exists. There are two types described in this specification. Type A is primarily intended for exterior application or where maximum adhesive shear strength and high temperature properties are important. It may be applied to painted surfaces, plated surfaces, glass or plastics (excluding polyolefins). Type B is intended for interior use and with the capability of adhering to similar surfaces as Type A but with lower adhesive shear strength and holding properties. Type B also have a capability of adhering to polyolefin surfaces.

2. REFERENCES

GM9010P
PSTC-4B
GMW3059

ASTM D3330
ASTM D3652

PSTC101D
ASTM 3654

PSTC-7
HN 1000

3. REQUIREMENTS

3.1 Table 1

Properties	Values		Test Method
	TYPE A	TYPE B	
Thickness of Adhesive	0.11 - 0.15 mm	0.04 - 0.15 mm	
Thickness of Liner	0.08 mm Nominal	0.08 mm Nominal	
Solids Content	98 % minimum	98 % minimum	GM9010P
90 ° Peel Adhesion to Stainless Steel	1500 N/m minimum	600 N/m minimum	ASTM D3330 PSTC101D
Holding Power	1440 minutes minimum @ 23 °C	30 minutes minimum @ 23 °C	PSTC-7
Liner Removability	50 N/m maximum	50 N/m maximum	PSTC-101D PSTC-4B

3.2 Form and Quality

Shelf Life. Material shall pass all requirements of this specification after ageing material in the original container 90 days at 35°C.

3.3 Test Procedures

3.3.1 Conditioning

The rolls shall be conditioned and specimens selected in accordance with PSTC Appendage D.

3.3.2 Specimen Preparation

Each specimen to be used for testing in 3.3.4 and 3.3.5 shall be prepared in the following manner:

Laminate the adhesive to a suitable size strip of aluminium foil. Prior to conducting the actual test remove the liner. This gives a strip of tape with the adhesive on 1 side of an aluminium foil backing.

3.3.3 Thickness

The adhesive thickness shall be determined according to ASTM D3652.

3.3.4 Adhesion

The initial adhesion of specimens prepared in 3.3.2 shall be determined in accordance with ASTM D3330 or PSTC101D. A constant rate of extension type instrument with a 300 mm/minute crosshead speed shall be used in lieu of the pendulum type instrument. Tapes should be tested at a 90° angle on a stainless steel panel after 72h dwell, aluminium foil backing should be used. Peel at 305 mm/minute.

3.3.5 Holding Power

The holding power test on specimens as prepared in 3.3.2 shall be conducted as specified in ASTM D3654 and PSTC-7. The time in minutes for the specimen to separate completely from the panel shall be used to determine its qualification as per requirements listed in this specification. Samples should be 12.7 x 12.7 mm tested on a stainless steel test panel after 72 h dwell, aluminium foil backing should be used. Load with a 1000 g mass.

4. APPROVAL, INSPECTION AND REJECTION

Refer HN 1000, Clauses A and C.

5. HAZARDOUS MATERIALS

Refer HN 1000, Clause H.

6. RESTRICTED AND REPORTABLE SUBSTANCES

- (i) All substances and parts must meet the requirements of GMW3059.
- (ii) All chemical components present in materials supplied to this specification must comply with Australian NICNAS (National Industrial Chemicals Notification and Assessment Scheme) obligations.