Nameplates For Industry

# NFi Printed Adhesive

## DESCRIPTION

Water based acrylic pressure sensitive adhesiveNFi's printed adhesive is a high performance screenprintable adhesive for instrument panels, touch panels, orappliques in the automotive / electronic industries where selectively applied yet permanent adhesion and high peelstrength are required. NFi's printed adhesive has a very high temperature resistance (Under 30g load: -30C to 180Cor -22F to 355F) in addition to excellent aging and UV resistance.

## ADHESIVE PERFORMANCE

**Data from adhesive screenprinted on 2-mil polyester**

| | |
|---|---|
| Dry Film Thickness *1 | Approx. 45 (.0017") |
| Tac Value *2 | Approx. 1200g (42oz.) |
| Peel Value (1 Min) *3 | 19.0 N/in. (4.3 lbs/in) |
| Peel Value (72 Hrs) *3 | 33.9 N/in. (7.7 lbs/in) |

*1 Calculated figure. *2 90 wet film thickness. Measured with Polyken Tack Tester, 1 sec. adhering, pull-off speed: 0.5 cm/sec. *3 Peel strength perPSTC 1, measured in N/cm. on Lloyd type L500 with load cell 100N, Class 1, DIN 51221 for tension & compression. Peel speed: 300mm/min. Bonded topolished stainless steel (raw material 1.4301) with hand roller as per PSTC standard: roller weight 10 lbs, 5 times each direction. Bonding area 1x4 inches.

## STATIC SHEAR

**5,000 minutes** Adhesive deposit 90µ wet, @20°C / 68°F, printed on polyester; applied to polished stainless steel; 1 in$^2$ overlap, 2.24 lb / 1kg weight; measured on ETS Shear tester: Mark 6 per FINAT #8

## SUBSTRATES

The good wetting properties of this adhesive enable its use on difficult powder coated and LSE plastic substrates like polyethylene, polypropylene or polyamide in addition to metal, glass, polyester, polycarbonate and other industrial plastics. It is important to test all substrates for their suitability. (i.e. plasticizers in soft PVC may soften the adhesive resulting in reduced adhesion.)

## ADHESION

**The bond of self-adhering articles with NFi's printed adhesive can be improved by:**

A. Using parts free of mold release agents or substances such as fats, oil, wax dust impregnations, etc. (Make sure all parts that come in contact with the adhesive are dry.)
B. Optimum application temperature: 20°C to 60°C or 68°F to 140°F.
C. Additional pressure (approx. 3-4 bar) with a heated silicone rubber pad 40°C to 50°C or 104°F to 122°F.
D. Preventing air bubbles and stretching the substrate during application.
E. Flat and smooth substrate (i.e. pressure molding parts without burrs or sprue marks.)
F. Sufficient adhesion surface area relative to total surface area.

## UL 969 RECOGNIZED

Under NFi File #MH12578 (N) as a sub-surface printed polycarbonate marking.

ALL INFORMATION CONTAINED HEREIN IS BASED ON ACTUAL TESTS AND IS OFFERED AS A GUIDE ONLY WITHOUT OBLIGATION.

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