



1001 Trout Brook Crossing  
Rocky Hill, CT 06067-3910  
Telephone: (860) 571-5100  
FAX: (860) 571-5465

## Product Description Sheet

### Speedbonder® Product H3000

formerly Hysol® H3000

Industrial Products, May 2002

#### Description

Loctite® Speedbonder® H3000 is a general purpose, two component, room temperature curing, 1:1 mix ratio, methacrylate adhesive system. H3000 is formulated to yield high peel and shear strength. This adhesive forms resilient bonds and maintains its strength over a wide range of temperatures. H3000 is suitable for bonding a variety of substrates with a minimum of surface preparation. Primer 2000, a wipe-on metal adhesion promoter, is suggested when bonding metals for harsh environments.

Recommended Substrates: PVC, polycarbonate, acrylic, ABS, stainless steel and FRP

#### Features

- Non-sagging gaps filled to .375 inch
- Superior impact and peel strength
- Little or no surface preparation
- Offers excellent tolerance to off-ratio mixing
- Rapid room temperature cure
- 100% reactive
- Excellent environmental resistance

Typical Uncured Properties	Part A	Part B	Mixed
Open Time @ 70°F, mins	---	---	4 to 6
Fixture Time @ 70°F, mins	---	---	12 to 15
Color	Cream	Tan	Cream
Viscosity, cP	45,000 to 85,000	8,000 to 40,000	---
Specific Gravity	1.07	1.06	1.07
Weight per Gallon, Lbs	8.92	8.91	8.91
Mix Ratio			
By weight	1	1	---
By volume	1	1	---

Typical Cured Properties	Typical Value
Tensile Strength, psi, ASTM D 638	4,100 to 4,300
Elongation, %, ASTM D 638	20 to 30
Shear Strength @ 180°F, psi, Etched Aluminum ASTM D 1002	1,900 to 2,100

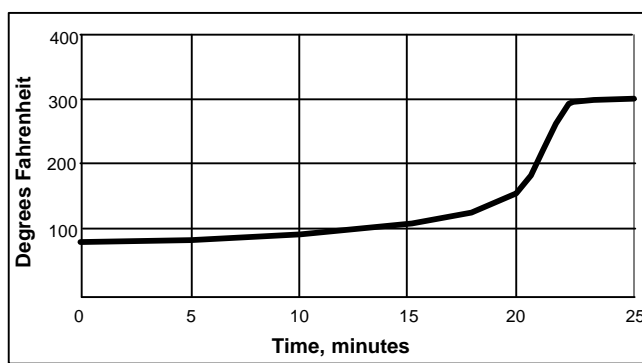
Shear Strength, psi, ASTM D1002	Typical Value
Etched Aluminum	4000
Aluminum	2940
Anodized Aluminum	1840
Steel	4150
Stainless Steel	3540
Zinc Dichromate	1980
Polycarbonate	960
Fiberglass	1740
Gelcoat	1490

T-peel, pli, ASTM D1876	Typical Value
Steel	45
Aluminum	20
Etched Aluminum	30

Side Impact Strength, kJ/m <sup>2</sup> , GM9751P test	Typical value
Aluminum	25 to 30

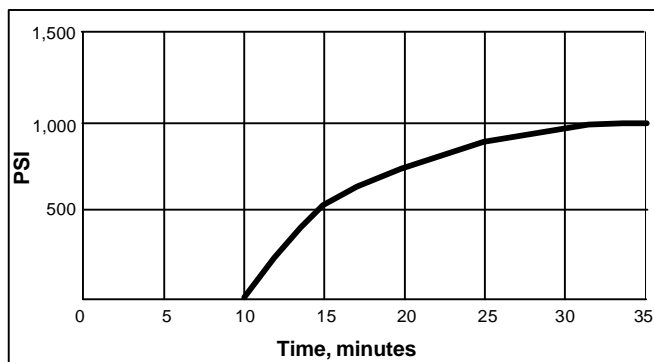
Shear Strength after Environmental Exposure, psi, ASTM D 1002		
	2 Weeks	4 Weeks
120°F/100% RH	1250	2170

#### Peak Exotherm Curve -10 Gram Mass



#### Development of Bond Strength

Strength Build on FRP



#### GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

## **Handling and Application**

**Mixing:** It is highly recommended that either meter mix equipment or cartridges with static mix nozzles be used to properly ratio and dispense the adhesive. For hand mixing, combine Part A and Part B in the correct ratio and mix thoroughly. Once mixed, H3000 should achieve a uniform color. This is important! Heat buildup during and after mixing is normal. To reduce the likelihood of exothermic reaction or excessive heat buildup, mix less than 100 grams at a time. Mixing smaller amounts will minimize heat buildup.

**Applying:** Bonding surfaces should be clean, dry, and free of contamination. Extensive surface preparation is not required for H3000, and good bonds can be formed on most substrates after a solvent wipe. To assure maximum bond strength, surfaces must be mated within the adhesive's open time. Use enough material to completely fill the joint when parts are clamped.

**Curing:** Parts should remain undisturbed during the interval of time between the material's open time and fixture time. After the fixture time is achieved the material has reached handling strength. Temperature below 55°F will slow the cure; above 85°F will accelerate the cure rate.

**Clean Up:** It is important to clean up excess adhesive from the work area and application equipment before it cures. Denatured alcohol and many common industrial solvents are suitable for removing uncured adhesive. Speedbonder H3000 is flammable. Keep containers tightly closed after use. Keep away from heat, sparks, and open flames.

## **Storage**

Speedbonder adhesives should be stored in unopened containers in a dry location at 40°F +/- 5 F. For further specific shelf life information, contact your local Technical Service Center.

## **Packaging**

50ml EPS cartridges  
400ml EPS cartridges  
5 Gallon Pails  
55 Gallon Drums

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## **Note**