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# Product Description Sheet

## Speedbonder® Product H8000

Industrial Products, May 2002

### Description

Loctite® Speedbonder H8000 is a non-sag, two component, room temperature curing, 10:1 mix ratio, methacrylate adhesive system. H8000 is designed to have fast fixture time and excellent bond strength on multiple substrates including metals and composites. The product also has high elongation and excellent cold temperature impact strength. This adhesive forms resilient bonds and maintains its strength over a wide range of temperatures.

**Recommended Substrates:** Steel, Aluminum, Stainless Steel, FRP, Xenoy, RTM, Gelcoat, and ABS.

### Features

- Non-sagging gaps filled to 1/2 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 Cured Properties	Typical Value
Tensile Strength, psi, ASTM D 638	2300 to 2500
Elongation, %, ASTM D 638	50 to 100
Young's Modulus (psi)	70,000 to 90,000
Shear Strength @ 180°F, psi, ASTM D 1002	1900 to 2100

Typical Uncured Properties	Part A	Part B	Mixed
Open Time @ 70°F, mins	-	-	10 to 15
Open Time @ 40°F, mins			60 to 75
Exotherm Time @ 70°F, mins	-	-	18 to 25
Fixture Time, 3 Kg weight, @ 70°F, mins			15 to 20
Color	yellow	Blue	Green
Viscosity, cP Brookfield HBT Spindle #6, 10 Rpm	160,000 to 220,000	40,000 to 70,000	-
Specific Gravity	0.94	1.15	0.96
Weight per Gallon, Lbs	7.83	9.58	-
Mix Ratio			
By weight	8.17	1	-
By volume	10	1	-

Typical Cured Properties	
Shear Strength, psi, ASTM D1002 @ 70°F	Typical Value
Aluminum	3000 to 3500
Steel	3000 to 3500
Stainless Steel	2800 to 3100
FRP	>1200 to 1600
Gelcoat	>1000 to 1500

Typical Cured Properties	
Shear Strength, psi, ASTM D1002 @ 180 °F	Typical Value
Aluminum	1100 to 1300
Etched Aluminum	800 to 1000
Ground Steel	1000 to 1200

Side Impact Strength, kJ/m <sup>2</sup> , GM9751P test	Typical value	
	@70°F	@-40°F
Aluminum	>42	>42
FRP	>15	16
Ground Steel	24	30

T-Peel, pli, ASTM D1876	Typical Value
Steel	35 to 45
Aluminum	50 to 60

### 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 optimum mixing, the Loctite static mixer, Item 985545 is recommended. Once mixed, H8000 should achieve a uniform green color. 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 H8000, 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 cure rate.

**Clean Up:** It is important to clean up excess adhesive from work area and application equipment before it hardens. Denatured alcohol and many common industrial solvents are suitable for removing uncured adhesive. H8000 is flammable. Keep containers tightly closed after use. Keep away from heat, sparks, and open flame.

### 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.

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PLEASE CONTACT LOCTITE CORPORATION QUALITY DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS ON SPECIFICATIONS FOR THIS PRODUCT.  
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### **Packaging**

490ml EPS cartridges

5 Gallon Pails

55 Gallon Drums

### **Note**

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