



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

# Laboratory Data Sheet

## Hysol 210213

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### PRODUCT DESCRIPTION

LOCTITE® Hysol 210213 is a one-part, heat cure epoxy adhesive. This adhesive cures rapidly at temperatures as low as 100°C (212°F) while maintaining excellent stability.

### TYPICAL APPLICATIONS

Bonding stainless steel cannulae into hubs for needle assemblies.

### PROPERTIES OF UNCURED MATERIAL

	Value	Typical Range
Chemical Type	One-Part Epoxy	
Appearance	Light Tan	
Specific Gravity @ 25°C	1.40	
Viscosity @ 25°C, mPa.s (cP)		
Brookfield RTV		
Spindle SSA #14 @ 20 rpm	31,000	27,000 to 35,000
Flash Point (TCC), °C (°F)	>93 (>200)	
Fluorescent	No	

### TYPICAL CURING PERFORMANCE

#### Cure Speed

Typical cure times were estimated as >99% conversion using differential scanning calorimetry.

Cure Temperature	Cure Time, Minutes
100°C	24
125°C	13
150°C	10

### PERFORMANCE OF CURED MATERIAL

#### Needle Pull Strengths

Needle pull strengths were determined using Loctite standard test specimens. The adhesive was cured for 30 minutes at 100°C.

Hub Material	Needle Pull Strength Typical Value, lb (N)	
	Cannula Gauge Size	
	22	27
ABS	68 (15)	36 (8)
PP, Plasma Treated	40 (9)	30 (7)
PE, Plasma Treated	49 (11)	32 (7)

### Storage

Product should be stored refrigerated at approximately 0°C (32°F). When using the product, it should ideally be used at ambient conditions between 8°C to 28°C (46°F to 82°F). To prevent contamination of unused product, do not return any material to its original container. For further specific shelf life information, contact your local Technical Service Center.

### Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

### Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Loctite Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loctite Corporation's products. Loctite Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Loctite Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.