



# Hysol® EA 9833.1

## Core Splice Adhesive

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### Description

Hysol EA 9833.1 is a modified bismaleimide foaming core splice adhesive. It is designed for use up to 450°F/230°C. This product handles like an epoxy and may be cured @ 350°F/177°C followed by an elevated temperature post cure.

### Features

Intumescent Core Splice Adhesive  
Supplied in 50 mil or 100 mil sheets (1.25 or 2.5 mm) (nominal)  
High Service Temperature  
Expansion Ratio (free film) is 2X to 3X at 350°F/177°C

### Handling

This product is in sheet form and is ready to use as received. The adhesive should be removed from cold storage and allowed to warm to room temperature (77°F/25°C). All moisture should be removed from the protective packaging before opening. The adhesive film has a protective liner(s) on it, which must be removed prior to parts assembly (see "Applying" below). The liner(s) will always be a contrasting color from the adhesive to allow the user easy confirmation of removal.

### Application

**Storage** - This product requires refrigerated storage. Store @ 0°F/-18°C or below for maximum storage life. Warranty life @ 0°F/-18°C is 12 months from date of shipment. Store only in sealed containers to prevent moisture contamination. Allow all moisture to evaporate from container before opening for use. A maximum of three freeze/thaw cycles is recommended on uncured film.

**Applying** - Bonding surfaces should be clean, dry and properly prepared. For optimum surface preparation consult the Hysol Surface Preparation Guide. This product is available in sheet form as 1 ft x 2 ft (0.30 x 0.61 m) sheets with polyethylene separator film on one side and paper on the other. Hysol EA 9833.1 should be cut to the desired size and shape, the polyethylene liner and paper removed, and the material placed in the splice junction.

**Open Assembly Time** - This adhesive may be used within the following schedule after removing from cold storage:

- @ 77°F/25°C at least 30 days
- @ 90°F/32°C at least 10 days

**Curing** - This product may be cured for one hour @ 350°F/177°C. Heat up rate to the cure temperature should be between 1°F and 5°F (0.5°C and 2.5°C) per minute. Post cure @ 400°F to 475°F (204°C to 246°C) for 2 to 6 hours for optimum properties.

**Cleanup** - It is important to remove excess adhesive from the part and bonding tools before it hardens. Once the adhesive is cured, it is difficult to remove except by mechanical abrasion. Uncured adhesive may be removed with denatured alcohol and many common industrial solvents. Be careful to prevent any solvent from entering the uncured bondline as solvent will degrade the final bond performance. Consult your supplier's information pertaining to the safe and proper use of solvents.

### Bulk Resin Properties

	<u>Typical Results (50 mil film)</u>	
Areal weight	0.37 psf	1,808 g/m <sup>2</sup>
Expansion Ratio	2 - 2.5	
Slump	<0.25 in	<6.3 mm

### Bond Strength Performance

#### *Tube Shear Strength*

Tube shear strength tested per BMS 5-90. Adherends are 5052 alloy aluminum tubing treated with FPL etch per ASTM D2651-90. Cure cycle: 4 hours @ 350°F/177°C plus 6 hours @ 415°F/212°C.

<u>Test Temperature, °F/°C</u>	<u>Typical Results</u>	
	<u>psi</u>	<u>MPa</u>
77/25	1,000	6.8
<350/149	1,000	6.8
500/260	550	3.8

### Handling Precautions

Do not handle or use until the Material Safety Data Sheet has been read and understood.

For industrial use only.

#### **General:**

As with most epoxy based systems, use this product with adequate ventilation. Do not get in eyes or on skin. Avoid breathing the vapors. Wash thoroughly with soap and water after handling. Empty containers retain product residue and vapors, so obey all precautions when handling empty containers.

**CAUTION!** As with most epoxy based systems, the uncured adhesive may cause eye and skin irritation or allergic dermatitis. Contains epoxy resins.

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Users should review the Materials Safety Data Sheet (MSDS) and product label for the material to determine possible health hazards, appropriate engineering controls and precautions to be observed in using the material. Copies of the MSDS and label are available upon request.

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