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Product Description Sheet

Hysol® Product 9433

Industrial Products, August 2001

Description

Loctite® Hysol® 9433 is a fast cure, medium viscosity toughened epoxy resin formulation recommended for industrial adhesive, small potting and laminating applications where excellent structural, mechanical and electrical properties are required. This two part adhesive exhibits good wetting, cures at room temperature and develops strong, low shrinkage bonds to most materials including optical fibers, glass ceramics, most metals and many rigid plastics.

Recommended Substrates: composites, metals, glass, ceramics, thermoset polyester, many plastics and wood products

Features

Quick Set
Easy to Mix
Good Wetting
Room Temperature Cure
High Peel Strength
Self Leveling, Flowable

Handling

Mixing: This product requires mixing two components together just prior to application. Complete mixing is necessary. The temperature of the separate components prior to mixing is not critical, but they should be close to room temperature.

Application

Mixing - Bulk: Combine Part A (resin) and Part B (hardener) in the correct ratio and mix thoroughly until the color and consistency are uniform. Mixing the adhesive just prior to use is recommended. Heat buildup during or after mixing is normal. Do not mix quantities greater than one pound as dangerous heat buildup can occur causing uncontrolled decomposition of the mixed adhesive. Mixing smaller quantities will minimize the heat buildup.

Mixing - Cartridges: Place cartridge in proper dispenser. Remove cap from cartridge and predispense until both parts (Part A and Part B) are visible in the nozzle. Attach nozzle and dispense approximately 1-2" before dispensing onto part to be bonded. Partially used cartridges should be stored with the mixing nozzle attached. To reuse, remove and discard the old nozzle, attach new nozzle, and begin dispensing.

Application: Bonding surfaces should be clean and dry. Once the adhesive is applied, the bonded parts should be held in contact until the part has developed handling strength. It is not necessary to clamp the parts unless movement during cure is likely.

Cure: Complete cure is obtained after 24 hours at room temperature (77°F). Hysol 9433 will achieve handling strength after ten minutes at 140°F (NOTE: this can vary with different bond configurations). Hysol 9433 can also be fully cured in 30 minutes at 180°F. Other times and temperatures (250°F is a suggested maximum) can be used depending on the application.

Clean Up: It is important to remove excess adhesive from the work area and application equipment before it hardens. Many common solvents and citrus cleaners are suitable for removing uncured adhesive. Consult with your supplier's information pertaining to the safe and proper use of solvents.

Availability

50 and 200 ml. EPS cartridges
One and Five Gallon Systems

Typical Uncured Properties	Part A	Part B	Mixed
Pot Life @ 77°F, 20 grams mins			25 to 30
Color	White	Light Yellow	Cream
Viscosity, cP	124,000 to 224,000	65,000 to 165,000	--
Mix Ratio			
By weight	100	43	--
By volume	2	1	--

Typical Properties	Typical Value
Tensile Strength, psi, ASTM D 638	7200
Hardness, Shore D	75

Electrical Properties	Typical Value
Dielectric Strength, ASTM D149, V/mil	405

Shear Strength, psi, ASTM D 1002 Etched Aluminum		
Cure Schedule	Test Temp °F	Typical Value
24 Hours @ 77°F	77	3500
	180	200

Peel Strength ASTM D 3167	Etched Aluminum, pli
3 Days @ 77°F	45

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).

NOT FOR PRODUCT SPECIFICATIONS
THE TECHNICAL DATA CONTAINED HEREIN ARE INTENDED AS REFERENCE ONLY.
PLEASE CONTACT LOCTITE CORPORATION QUALITY DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS ON SPECIFICATIONS FOR THIS PRODUCT.
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Storage

Store product in unopened container in a cool dry location. Ideal conditions are within the range 8 to 21 degrees C (46 to 70 degrees F) and are recommended for long term storage. Exposure to higher temperatures (greater than 28 degrees C) for prolonged periods should be avoided as extended exposure to warm conditions can adversely affect product properties. For further specific shelf life information, contact your local Technical Service Center.

Note

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