



Revision Date 1/24/2019

**R3501/H5000-01****Description**

EPIC R3501/H5000-01 is a very low viscosity, solvent free epoxy resin system for use in adhesive and potting applications. The system will cure at room temperature or can be accelerated with moderate heat.

**Version**

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**RoHS Status**

This is to certify the above referenced part(s) listed meet the requirements of the current RoHS Directive 2015/683/EU.

**Typical Properties**

Product Identification	Potting Compound
Product Resin	Epoxy
Component Count	2
Color, Mixed	Clear to Amber

**Shelf Life**

	Part A	Part B
Shelf Life 25C	12 Months	12 Months

**Viscosity**

	Part A	Part B	Test Method
Viscosity @ 25C, 900 RPM	500 - 900 cps	20 - 50 cps	ASTM D4287

**Density**

	Part A	Part B	Test Method
Weight/Gallon	9.25 - 9.55 lb/gal	7.90 - 8.10 lb/gal	ASTM D1875
Weight/Gallon, Mixed	8.91 - 9.18 lb/gal		ASTM D1875

**Processing**

	Part A	Part B
Color	Clear	Light Yellow
Mix Ratio by Weight	100	29
Mix Ratio by Volume	100	34
Cure Schedule, Hours @ 25C	24 - 36 hours	
Alternate Cure, Hours @ 55C	12 - 15 hours	

**Gel Time**

		Test Method
Gel Time, Minutes @ 25C (200 grams)	35 - 45 Minutes	ASTM D3056

**Cured Properties**

		Test Method
Hardness, Shore D	78 - 82	ASTM D2240
Tensile Strength psi	9,500 - 10,000 psi	ASTM D638
Tensile Modulus psi	183,000 - 186,000 psi	ASTM D638
Elongation	6.00 - 8.00 %	ASTM D638
Compressive Strength psi	8,500 - 9,300 psi	ASTM D695
Compressive Modulus psi	195,000 - 214,000 psi	ASTM D695
Flexural Strength psi	15,500 - 16,300 psi	ASTM D790
Flexural Modulus psi	500,000 - 517,000 psi	ASTM D790
Tg (Glass Transition)	70 - 75 C	ASTM E1545
Coef Thrm Exp (from 0 to 20C)	55 - 65 (Exp-6)/C	ASTM E831
Coef Thrm Exp (from 100 to 120C)	200 - 250 (Exp-6)/C	ASTM E831

## **Mixing Instructions**

When mixing two component epoxy resins, the ideal method is to mix by weight using a balance or digital scale. The mixing container should be placed on the scale and set to read zero, the appropriate amount of resin should be weighed followed by the appropriate amount of hardener. The material should then be stirred, ideally with a metal spatula, ensuring that the material is thoroughly mixed to a homogenous state by scraping the sides, bottom and the area where the sides meet the bottom of the container. Failure to do so can result in uncured sections of material or altered properties of the cured material. When mixing epoxy resins it is important to keep in mind that the larger the quantity of material mixed, the shorter the pot life (working time) will be.

## **Handling and Storage**

Due to the differences in densities of its constituents, this material may require mixing prior to use if it has been stored for a period of time. Filled systems are most susceptible to separation though many unfilled pigmented systems will separate over time on standing as well. Failure to mix this material prior to use may result in cured properties that do not match those found on this technical datasheet. If you have any further questions, please consult your Epic Resins sales representative. Please refer to the Safety Data Sheet when determining the proper precautions to be used when storing or handling Epic R3501/H5000-01. Most epoxy resins and hardeners are skin and eye irritants. Some epoxy hardeners may actually be corrosive to the skin and eyes. Other health problems may be aggravated by exposure to these materials. Epic Resins recommends that engineering controls be used to minimize employee exposure to this or any other industrial chemical.

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