

Epic Resins

S7287-01

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Product Datasheet

Description

EPIC S7287-01 is a two component urethane compound that is used in various electrical and electronic potting applications. EPIC S7287-01 features a medium viscosity which imparts controlled flowability for the ease of potting of parts.

Versions

[S7287-03](#) [S7287](#) [S7287-02](#)

RoHS Status

Compliant: This is to certify the above referenced part(s) listed meet the requirements of the current RoHS Directive 2011/65/EU.

Typical Properties

Product Identification:	Electrical	Product Resin:	Urethane
Component Count:	2	Color, Part A:	Black
Color, Part B:	Brown	Color, Mixed:	Black
Shelf Life 25C, Part A:	12 Months	Shelf Life 25C, Part B:	6 Months
Pot Life, minutes:	20 minutes minimum @ 25C (100 grams)		

Viscosity

Viscosity, Part A (ASTM D4287):	1,800 - 2,000 cps @ 25C, 20 rpm	Viscosity, Part B (ASTM D4287):	35 - 65 cps @ 25C, 800 rpm
Viscosity, Mixed (ASTM D2196):	900 - 1,200 cps @ 25C, 20 rpm		

Weight per Gallon

Weight/Gallon A (ASTM D1875):	8.00 - 8.20 lb/gal	Weight/Gallon B (ASTM D1875):	10.15 - 10.25 lb/gal
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Processing

Mix Ratio by Weight: 100:34	Mix Ratio by Volume: 100:27
Cure Schedule, Days: 7 days @ 25C (For Full Cure)	Alternate Cure, Hours: 2 hours @ 65C

Gel Time

Gel Time, Minutes (ASTM D3056): 30 - 50 Minutes @ 25C (100 grams)

Cured Properties

Hardness, Shore A (ASTM D2240):	57 - 63	Tg (Glass Transition) (ASTM E1545):	-1 - -2 C
Coef Thrm Exp (ASTM E831):	200 - 250 (Exp-6)/C		

Electrical Properties

Dielectric Constant (ASTM D150):	2.88 @ 500 MHz	Dielectric Constant (ASTM D150):	2.82 @ 1 GHz
Dielectric Constant (ASTM D150):	2.48 @ 3 GHz	Dielectric Constant (ASTM D150):	2.9 - 3.1 @ 100 kHz
Dissipation Factor (ASTM D150):	0.019 @ 500 MHz	Dissipation Factor (ASTM D150):	0.019 @ 1 GHz
Dissipation Factor (ASTM D150):	0.053 @ 3 GHz	Dissipation Factor (ASTM D150):	0.06 - 0.08 @ 100 kHz
Volume Resistivity (ASTM D257):	1.30e+12 - 1.80e+12 ohm in		

Mixing Instructions

Polyurethane Mixing Instructions: When mixing two component polyurethanes, 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 polyurethanes, precautions should be taken to prevent any moisture from contaminating the material. The use of wood stir sticks and paper cups should be avoided due to their porosity and ability to hold moisture. When reclosing partial containers, an inert gas purge should again be introduced to prevent moisture contamination.

Handling and Storage

Please refer to the Safety Data Sheet when determining the proper precautions to be used when storing or handling Epic S7287-01. This product contains 4,4' Diphenylmethane Diisocyanate (MDI), which is a respiratory sensitizer. Other health problems may be aggravated by exposure to this material. Great care should be taken to ensure employees are not exposed to this material above the ACGIH TLV. Epic Resins recommends that engineering controls be used to minimize employee exposure to this or any other industrial chemical.

LIMITATION OF WARRANTY: Epic warrants its Product to be free of defects in materials and workmanship and to conform with all product specifications. Epic's liability is limited to replacement product only. Epic shall not be liable to Customer or any other party for any incidental, consequential or special damages, or any lost profits which may be incurred by Customer or any other party. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE. NO EMPLOYEE, AGENT OR REPRESENTATIVE OF EPIC IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY.