

Technical Data Sheet

EPON™ Resin SU-8

Product Description

EPON™ Resin SU-8 is a polymeric solid epoxy novolac resin possessing an average epoxide group functionality around eight. EPON SU-8 is compatible with bisphenol A-based epoxy resins, imparting improved high temperature strength, thermal stability, reactivity and chemical resistance. Prepreg laminates and graphite or boron reinforced composites with EPON SU-8 attain the maximum strength retention and thermal stability possible for an epoxy matrix system at elevated temperatures. Epoxy molding powders prepared with EPON SU-8 are characterized by an outstanding combination of flow stability and short press cycles.

Application Areas/Suggested Uses

- Prepreg
- Electrical laminating
- Adhesives

Benefits

- Long shelf life
- Micropulverized at ambient temperatures
- Rapid development of hot hardness
- Maximum elevated temperature strength retention
- Improved tack qualities and lateral cohesiveness of unidirectional tapes

Sales Specifications

Property	Value	Unit	Test Method
Color	6 max.	Gardner	ASTMD1544
Epoxide Equivalent Weight	195 - 230	g/eq	ASTMD1652
Viscosity at 130°C	10 - 60	P	ASTMD2196

¹ 40% weight in Butyl Carbitol

Typical Properties

Property	Value	Unit	Test Method
Density at 25°C	10.0	lb/gal	ASTMD1475
Flash Point	>200	°F	ASTMD93
Melting Point	82	°C	ASTMD3104

General Information

EPON Resin SU-8 can be used as a modifier for upgrading the elevated temperature properties and the reactivity of bisphenol A epoxy resin systems for molding powders or powder coatings. The high molecular weight of EPON SU-8 improves the tack qualities and lateral cohesiveness of unidirectional fiber reinforced tapes prepared with many epoxy matrix systems.

EPON Resin SU-8
<http://www.westlakeepoxy.com/en-US/product/epon-resin-su-8>

Generated: May 25, 2022
 Issue Date:
 Revision: 9/1/2001 4:00:00 AM

© and ™ Licensed trademarks of Westlake Inc.

The information provided herein was believed by Westlake Inc. ("Westlake") to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Westlake Epoxy are subject to Westlake Epoxy's terms and conditions of sale. **WESTLAKE MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY WESTLAKE,** except that the product shall conform to Westlake's specifications. Nothing contained herein constitutes an offer for the sale of any product.

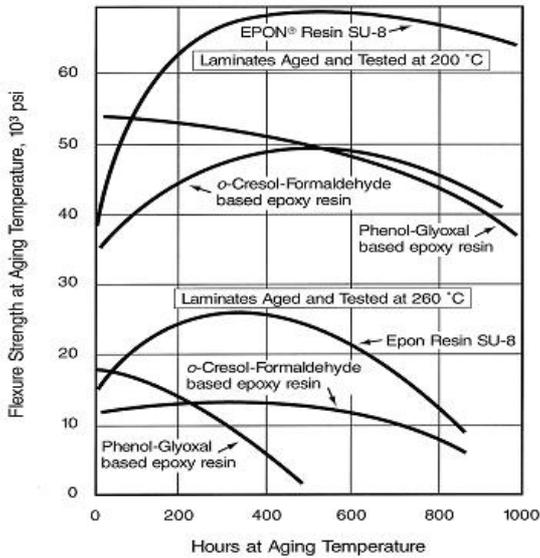
For prepreg applications, EPON SU-8 can be dissolved in numerous solvents such as most ketones, toluene, and diacetone alcohol.

Suggested formulations are available illustrating the use of EPON SU-8 in transfer and compression molding powders, high temperature adhesives, NEMA G-11 and FR-5 circuit boards of both conventional thickness and MLC types, advanced engineering composites, and other high temperature reinforced plastics applications such as those requiring MLRS-9300A, Type II properties.

EPON SU-8 may be processed and cured with a variety of epoxy resin curing agents. Table 1 lists a number of curing agents for several different types of applications.

Table 2 and Figure 1 profile the excellent performance of EPON SU-8 relative to other commercially available high functionality resins.

Figure 1 /Thermal stability of glass laminates¹ prepared with high functionality epoxy resin/anhydride/catalyst/EMI-24 binder systems



¹ 12-ply laminates prepared with 181 Style glass cloth (I-550 finish). All binder systems consist of the designated epoxy resin cured with methylenedimethylene tetrahydrophthalic anhydride at 90 percent stoichiometric level and accelerated with 2-ethyl-4-methyl imidazole at 0.22 phr concentration. Laminates were press-cured 1 hour at 150 °C, then post-cured 16 hours at 200 °C prior to initiating aging test in forced-air ovens.

Table 1 /Curing agents for several applications

Molding Powders	Reinforced Plastics	Powder Coatings
Phenolics	Phenolics	Phenolics
Dicyandiamide	Dicyandiamide	Dicyandiamide
Phthalic anhydride	Methyl endomethylene	Trimellitic anhydride
Tetrachlorophthalic anhydride	Tetrahydrophthalic anhydride	Melamine
4,4'-Methylenedianiline	BF ₃ MEA ¹	
	Imidazoles	
	4,4'-Diaminodiphenyl sulfone	

¹ BF₃MEA is boron trifluoride monoethylamine

Safety, Storage & Handling

Please refer to the MSDS for the most current Safety and Handling information.

Please refer to the Hexion web site for Shelf Life and recommended Storage information.

This product is prone to "blocking" or "sintering", i.e., softening of the particles and agglomeration to a semi-solid mass, when stored at slightly

EPON Resin SU-8

<http://www.westlakeepoxy.com/en-US/product/epon-resin-su-8>

Generated: May 25, 2022

Issue Date:

Revision: 9/1/2001 4:00:00 AM

© and ™ Licensed trademarks of Westlake Inc.

The information provided herein was believed by Westlake Inc. ("Westlake") to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Westlake Epoxy are subject to Westlake Epoxy's terms and conditions of sale. **WESTLAKE MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY WESTLAKE,** except that the product shall conform to Westlake's specifications. Nothing contained herein constitutes an offer for the sale of any product.

elevated temperatures. Blocking does not affect the performance of the resin. This product should be stored in a cool dry place to minimize handling problems due to blocking.

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them. Questions and requests for information on Hexion Inc. ("Hexion") products should be directed to your Hexion sales representative, or the nearest Hexion sales office. Information and MSDSs on non-Hexion products should be obtained from the respective manufacturer.

Packaging

Available in bulk and drum quantities.

Contact Information

For product prices, availability, or order placement, please contact customer service:

www.hexion.com/Contacts/

For literature and technical assistance, visit our website at www.hexion.com

EPON Resin SU-8

<http://www.westlakeepoxy.com/en-US/product/epon-resin-su-8>

Generated: May 25, 2022

Issue Date:

Revision: 9/1/2001 4:00:00 AM

® and ™ Licensed trademarks of Westlake Inc.

The information provided herein was believed by Westlake Inc. ("Westlake") to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Westlake Epoxy are subject to Westlake Epoxy's terms and conditions of sale. **WESTLAKE MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY WESTLAKE**, except that the product shall conform to Westlake's specifications. Nothing contained herein constitutes an offer for the sale of any product.