

product **bulletin**

EPON™ Resin 826

Introduction

EPON™ Resin 826 is a low viscosity, light colored liquid bisphenol A based epoxy resin. It finds use in a variety of applications when crosslinked or hardened with appropriate curing agents.

Features

- Low viscosity
- Low color
- Low ionic contamination
- Reacts with full range of curing agents
- Produces high-strength cured systems resistant to chemical attack

Suggested Uses

- Fiber reinforced pipe and composites
- Tooling and molding compounds
- Construction, electrical and aerospace adhesives
- Electrical castings and laminates
- Chemical resistant high solids tank linings
- Flooring
- Grouting compounds

Typical Properties

Weight per epoxide¹	178-186
Viscosity,² poise at 25 °C	65-95
50 °C	4.5
75 °C	0.8
Color³	1 max.
Physical form	Liquid
Pounds/gallon, at 25 °C	9.7
Density, g/ml at 25 °C	1.16

¹ASTM D 1652 (Epoxy Content of Epoxy Resins - Perchloric Acid Method)

²ASTM D 445 (Kinematic Viscosity - Determination of the Viscosity of Liquids by Ubbelohde Viscometer)

³ASTM D 1544 (Gardner Color Scale)



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General Information

The low viscosity and curing properties of EPON Resin 826 allow its use under various conditions and fabrication techniques. These include:

- Spraying and brushing
- Filament winding
- Pressure laminating
- Vacuum bag laminating
- Pultrusion
- Casting
- Molding
- Troweling

Benefits

EPON Resin 826 can be crosslinked with a variety of curing agents/depending on processing conditions and properties desired for the finished product. A guide to selecting curing agents for combination with EPON Resin 826 for various applications given in technical bulletin SC:235-01.828.

EPON 826 is commonly used to fabricate high strength fiber reinforced pipes and composites. The low viscosity of the resin provides rapid wetout of a wide range of reinforcing fibers including glass, graphite, aramid and boron. High fiber content with low void content can be achieved with this resin. Structural composites such as this have a high ratio of strength to weight. This makes them suitable for applications ranging from sporting goods equipment to aerospace structural members.

EPON Resin 826 systems are also excellent electrical insulators. Such systems are used frequently in electrical encapsulations, laminates and molding compounds.

Structures, linings and coatings made with EPON Resin 826 protect metal surfaces and resist attack from acids, bases, solvents and fuel. They find use in the oil, gas, mining and chemical industries.

The higher shear strength obtained with EPON Resin 826 adhesives is due in part to the low internal stresses inherent in cured epoxy resins. Such adhesives are used to bond a broad range of substrates.

EPON Resin 826 may occasionally crystallize, this is evident by the products visual appearance that can range from a hazy liquid to a waxy semi-solid. Resin that has crystallized can be reconstituted by gentle warming of the entire container and its contents to approximately 120-140 °F until all visual evidence of crystallization has gone away.

FDA Status

Several paragraphs of Title 21 of the Code of Federal Regulations permit and regulate the use of epoxy resins such as cured EPON Resin 826 as indirect food additives in food contact applications. Examples are: 175.105 and 175.300.

Packaging

EPON Resin 826 is supplied in 55-gallon, lined, steel drums and in bulk.

Resolution Performance Products

P.O. Box 4500
Houston, Texas 77210-4500

**For product availability, order placement or samples,
call our toll-free customer service number at:**

1.877.859.2800

For sales outside the U.S., call:

713.241.1065

For technical inquiries, call toll-free:

1.800.TEC.EPON (1.800.832.3766)

**For technical literature and additional technical assistance,
visit our website at:**

www.resins.com

SAFETY & HANDLING

These products are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. 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 Resolution Performance Products LLC ("RPPLLC") products should be directed to your RPPLLC sales representative, or the nearest RPPLLC sales office. Information and MSDSs on non-RPPLLC products should be obtained from the respective manufacturer.

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