

TECHNICAL DATA SHEET

PERFORMANCE EPOXY PART A

Product Description

Performance Epoxy™ Resin Part A 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.

Application Areas/Suggested Uses

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

Benefits

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

Sales Specification

Property	Units	Value	Test Method/Standard
Weight per Epoxide	g/eq	178 – 186	ASTM D1652
Viscosity at 25°C	P	65 – 95	ASTM D445
Color	Gardner	1 Max.	ASTM D1544

Typical Properties

Property	Units	Value	Test Method/Standard
Viscosity at 50°C	P	4.5	ASTM D445
Viscosity at 75°C	P	0.8	ASTM D445
Density at 25°C	lb/gal	9.7	ASTM D1475
Density at 25°C	g/ml	1.16	

Processing/How to use

General Information

The low viscosity and curing properties of Performance Epoxy™ Resin Part A allow its use under various conditions and fabrication techniques. These include:

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

Benefits

Performance Epoxy™ Resin Part A 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 Performance Epoxy™ Resin Part A for various applications given in technical bulletin SC:235-01.828.

Performance Epoxy™ Resin 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. Performance Epoxy™ Resin Part A systems are also excellent electrical insulators. Such systems are used frequently in electrical encapsulations, laminates and molding compounds.

Structures, linings and coatings made with Performance Epoxy™ Resin Part A 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 Performance Epoxy™ Resin Part A 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.

FDA

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

Safety, Storage & Handling

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

Performance Epoxy™ Resin Part A 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.

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 Performance Epoxy products should be directed to your Performance Epoxy sales representative.

Contact Information

For product prices, availability, or order placement, call our toll-free customer service number at:
1-800-841-5580

DISCLAIMER

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