

Technical Data Sheet

EPI-REZ™ Resin 5003-W-55

Product Description

EPI-REZ™ Resin 5003-W-55 is a nonionic aqueous dispersion of a polyfunctional aromatic epoxy resin with an average functionality of three. It is intended for high performance applications such as industrial fabric finishes and adhesives which require maximum chemical and solvent resistance and/or elevated temperature service.

Sales Specifications

Property	Value	Unit	Test Method
Particle Size	0.6 - 1.2	µm	SRC - 1
pH	3 - 5		ASTM E70
Solids	57 - 59	%	ASTM D1259
Viscosity	2000 - 15000	cP	ASTM D2196
Weight per Epoxide	195 - 215	g/eq	ASTM D-1652

Typical Properties

Property	Value	Unit
Pounds/Gallon	9.2	lbs/gal
Solvent	Water	

Processing/How to use

General Information

EPI-REZ 5003-W-55 contains reactive epoxide functionality. Water dispersion or water soluble curing agents which react with epoxide groups or promote self-polymerization are recommended as crosslinking agents for EPI-REZ 5003-W-55. Such curing agent types include dicyandiamide, polyamides, and aliphatic and aromatic amines.

Upon evaporation of water, EPI-REZ 5003-W-55 coalesces to form a clear, continuous, tacky film at ambient temperature. In baking applications, EPI-REZ 5003-W-55 in combination with a suitable crosslinking agent will form a clear, highly crosslinked, tough, chemical resistant film.

EPI-REZ 5003-W-55 promotes wetting and adhesion to fiberglass, polyester, nylon, and inorganic mineral fillers. It is recommended as a surface treatment, binder or adhesion promoter in applications involving these and many other substrates.

Advantages associated with EPI-REZ 5003-W-55 when compared to standard base epoxy resin include improved elevated temperature performance, increased water and solvent

EPI-REZ Resin 5003-W-55
<http://hexioninternet.azurewebsites.net/en-US/product/epi-rez-resin-5003-w-55>

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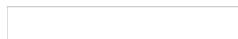
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resistance, and improved chemical resistance.

EPI-REZ 5003-W-55 contains no organic solvent and is completely water reducible. This dispersion is thixotropic.

Figure 1 / Effect of Dilution and Shear on Viscosity ¹



¹ Data collected on a Brookfield RVT viscometer and a #5 spindle at 25 °C.

Safety, Storage & Handling

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

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

For ease of handling and optimum shelf life, epoxy dispersions should be stored in tightly sealed containers at temperatures between 50 °F (10 °C) and 100 °F (37.8 °C). Do not allow the product to freeze. To prevent skinning or surface drying, do not leave the product uncovered for extended periods of time. If the need arises to store partially filled drums, replace the plastic top-sheet onto the surface of the liquid product.

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 Safety Data Sheet (SDS) 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 SDSs 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