

## Technical Data Sheet

Re-issued January 2008

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 Specification

Property	Units	Value	Test Method/Standard
Weight per Epoxide	g/eq	195 - 215	ASTM D-1652
Viscosity	cP	2,000 - 15,000	ASTM D-2196
Solids	%	57 - 59	ASTM D-1259
pH		3 - 5	ASTM E-70
Particle Size	µm	0.6 - 1.2	SRC -1

### Typical Properties

Property	Units	Value	Test Method/Standard
Pounds/Gallon	lbs/gal	9.2	
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

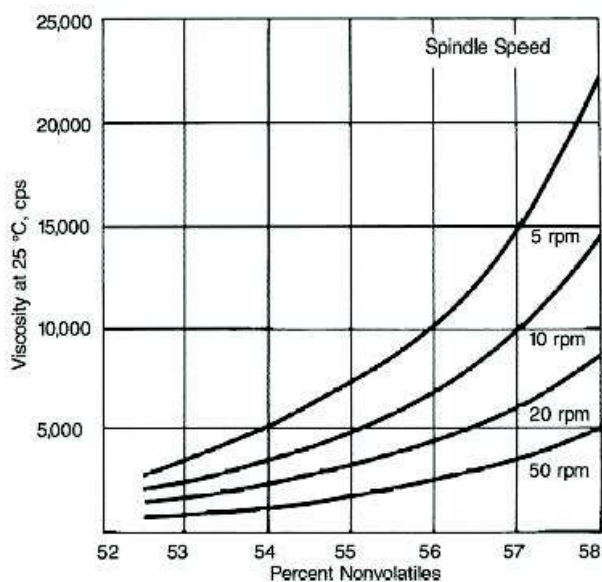
ambient temperature. In baking applications, EPI-REZ 5003-W-55 in combination with a suitable crosslinking agent will form a clear, highly crosslinked, tough, chemical resistant film.

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 bisphenol A base epoxy resin include improved elevated temperature performance, increased water and solvent 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 <sup>1</sup>



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

**Safety, Storage & Handling**

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

Please refer to the Momentive 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 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 Momentive Specialty Chemicals Inc. ("Momentum") products should be directed to your Momentive sales representative, or the nearest Momentive sales office. Information and MSDSs on non-Momentum products should be obtained from the respective manufacturer.

### **Packaging**

Available in bulk and drum quantities.

### **Contact Information**

For product prices, availability, or order placement, call our toll-free customer service number at: 1-877-859-2800

For literature and technical assistance, visit our website at: [www.momentum.com](http://www.momentum.com)

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