

Technical Data Sheet

EPI-REZ™ Resin 3514-W-56

Product Description

EPI-REZ™ Resin 3514-W-56 is a nonionic, waterborne dispersion of a liquid epoxy resin and was developed primarily for glass fiber sizing. For this application, EPI-REZ 3514-W-56 provides good particle size stability and fiber lubricity while maintaining a balance of fiber wet out and composite mechanical properties.

Application Areas/Suggested Uses

- Size treatments for inorganic and organic fibers, particularly in applications for reinforcement of thermoset resin systems
- Textile binders
- Film adhesives
- Clear and pigmented bake coatings
- Ambient cure industrial coatings
- Modifier for other waterborne epoxy resins

Benefits

- Physically stable, nonionically dispersed, low molecular weight epoxy resin
- Excellent particle size stability
- Low viscosity film former
- Helps to impart lubricity and wetting characteristics for fiber sizing
- Can be cured through epoxide functional groups

Sales Specifications

Property	Value	Unit	Test Method
Epoxide Equivalent Weight	205 - 225	g/eq	ASTMD1652
Particle Size, Coulter Volume Mean Coulter Volume Mean	1.2 max.	µm	Internal
pH	6 - 10		ASTME70
Solids Content	55 - 57	%m	ASTMD1259
Viscosity at 25°C, Brookfield	300 - 3000	cP	ASTMD1545

Typical Properties

Property	Value	Unit	Test Method
Appearance	Opaque white liquid		Visual
Density @ 25°C	9.0	lbs/gal	ASTMD1475
Organic Cosolvent	None		
Solvent	Water		

General Information

EPI-REZ Resin 3514-W-56
<https://www.hexion.com/en-US/product/epi-rez-resin-3514-w-56>

Generated: October 27, 2021
 Issue Date:
 Revision: 8/20/2018 2:00:00 AM

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EPI-REZ Resin 3514-W-56 is most commonly used as a film former for fiber sizing applications for reinforcement of thermoset matrix systems. This waterborne epoxy resin has excellent particle size stability and resin shelf life, and can be formulated to provide improved lubricity (reduced fuzz) for glass fiber sizing. For this application, EPI-REZ Resin 3514-W-56 also offers a good balance of fiber wet out and composite mechanical properties. Upon evaporation of water, EPI-REZ Resin 3514-W-56 coalesces to form a clear, continuous, tacky film at ambient temperature.

EPI-REZ Resin 3514-W-56 may be used for other applications including textile binders, film adhesives, and ambient and heat cured coatings by reacting the epoxide groups. Water dispersed or water soluble curing agents which react with epoxide groups or promote self-polymerization can be used as crosslinking agents for EPI-REZ Resin 3514-W-56. Such curing agents include dicyandiamide, polyamides, and aliphatic amines. In heat cure applications in combination with a suitable crosslinking agent, EPI-REZ Resin 3514-W-56 will form a clear, highly crosslinked, chemically resistant film.

Safety, Storage & Handling

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

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

For ease of handling and optimum shelf life, epoxy dispersions should be stored between 50°F (10°C) and 100°F (38°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. With extended storage or shipping, some settling may occur. In general, material should be lightly and thoroughly agitated before use to ensure uniformity.

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 Inc") products should be directed to your Hexion sales representative, or the nearest Hexion sales office. Information and Safety Data Sheets 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, visit the "Contact Us" section of our website. For literature and technical assistance, visit our website at: www.Hexion.com/epoxy

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