

Technical Data Sheet

EPI-REZ™ Resin 3520-WY-55

Product Description

EPI-REZ™ Resin 3520-WY-55 is a 55 percent solids dispersion of an EPON™ Resin 1001F in water and 2-propoxyethanol. This resin is designed for use in waterborne, two-package coatings. When combined with suitable curing agents, EPI-REZ 3520-WY-55 offers the potential for high performance aqueous systems.

Benefits

- Same molecular weight epoxy resins as standard solvent-borne epoxy systems
- High gloss
- Excellent stability
- Insensitive to pH
- Accepts variety of pigments
- Nonsettling or creaming on storage
- Mechanically stable
- Compatible with various solvents and curing agents
- Negligible solvent odor

Sales Specifications

Property	Value	Unit	Test Method
Fineness	5 min	Hegman	ASTMD-1210
Particle Size	0.2 - 0.5	µm	SRC 00033
Solids	54 - 56	%	ASTMD1259
Viscosity	7000 - 17000	cP	ASTMD2196
Weight per Epoxide	485 - 555	solids	ASTMD1652

Typical Properties

Property	Value	Unit
Appearance	Milky	
Flash Point	200 - 0	
Pounds per Gallon Solution	9.1	lbs/gal
Pounds per Gallon Solids	10.05	lbs/gal

General Information

EPI-REZ 3520-WY-55 is compatible with a variety of water reducible curing agents. Extensive evaluations have been made using EPI-CURE Curing Agent 8536-MY-60 and EPI-CURE Curing Agent 8537-WY-60.

The choice of curing agent will depend on the ultimate film properties desired for a particular application. Where optimum chemical resistance is desired, EPI-CURE Curing Agent 8536-MY-60 is suggested. If fast cure and film hardness are needed, then EPI-CURE Curing Agent 8537-WY-60 is

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the choice. Table 1 compares the performances of these two curing agents with EPI-REZ 3520-WY-55 in white enamels using stoichiometric combining ratios.

Variations in performance are possible with a particular curing agent by adjusting the ratio of curing agent to EPI-REZ 3520-WY-55. Figure 1 illustrates the performance variations achievable with EPI-CURE Curing Agent 8537-WY-60. This versatility allows the formulator to achieve desired properties for a particular application without the need to inventory several curing agents to perform in various applications. It is suggested that combining ratios other than stoichiometric be investigated to optimize performance.

Formulation Procedures

The available formulas include primers utilizing EPIKURE™ Curing Agent 8536-MY-60 and enamels based on either EPIKURE Curing Agent 8537-WY-60 or EPIKURE Curing Agent 8536-MY-60.

Please contact your local sales representative for specific formulas or formulating guidelines.

Table 1 /Typical Performance – White Enamels Bonderite #1000, 2 coats 3 mil DFT

	Units		
EPIKURE Curing Agent		<u>8536-MY-60</u>	<u>8537-WY-60</u>

Formulas

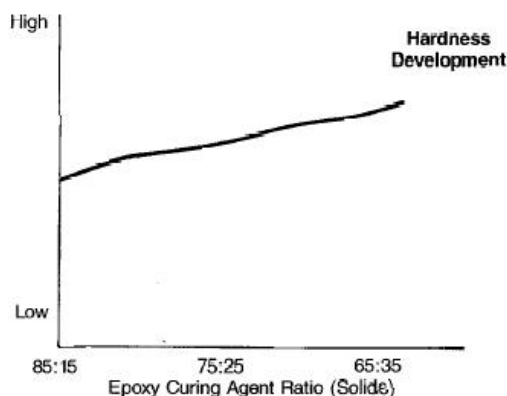
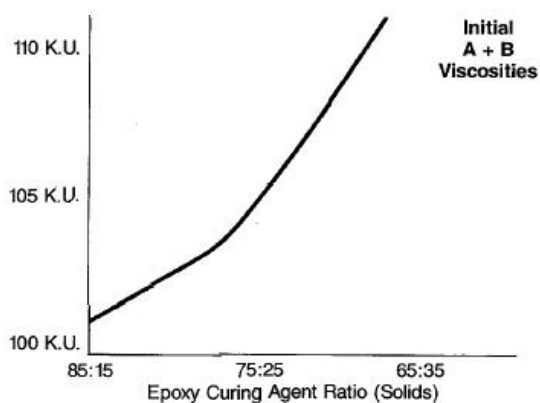
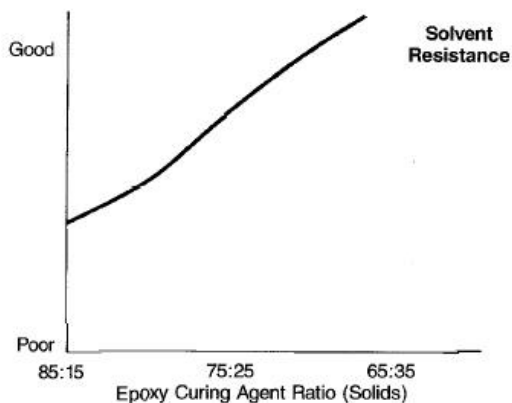
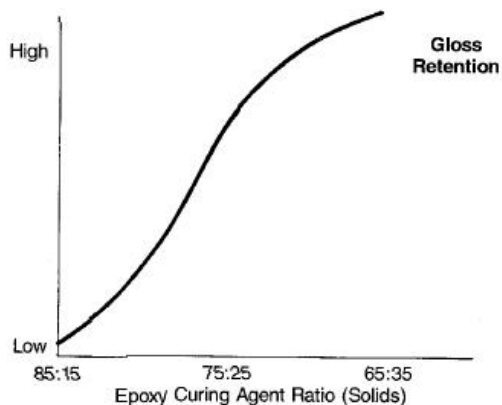
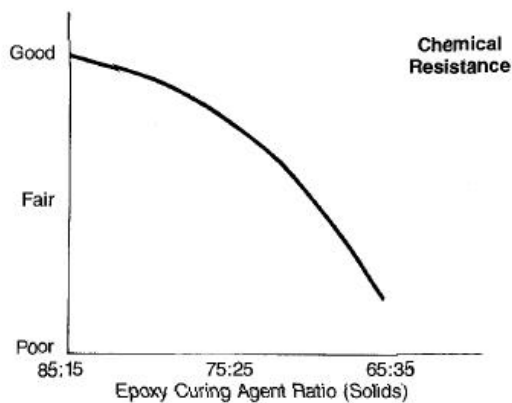
Pencil hardness		HB	2H
Gloss	60° Angle	100	100
Pot life	hrs.	8-10	8

Days immersion in:

10% NaOH		60*	60*
10% HCl		45	15
10% H2SO4		45	32
5% acetic acid		5	3
Distilled water		60*	60*

* = No Effect

Figure 1/ Effects of curing agent ratio on performance using EPIKURE Curing Agent 8537-WY-60 (Note: Stoichiometric ratio is 75:25)



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

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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

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