



D.E.R.™ 3913 Epoxy Resin

Description D.E.R.™ 3913 Epoxy Resin is a chemically modified liquid epoxy resin containing a monofunctional aliphatic reactive diluent.

Benefits Typically, bisphenol A/F-epichlorohydrin based resins, novolac based epoxy resins and other di- or multi-functional resins containing the aromatic ring structure will cure to hard, rigid compositions having rather low impact and elongation characteristics. There are many approaches to improve flexibility in epoxy binder systems. Among them are modifications with vegetable oils, polyamide or polysulfide curing agents, or long chain polyglycol. These modifiers, however, often adversely affect the physical, chemical, or solvent resistance properties of an epoxy system. Or they limit the choice of curing agents and as a result limit their use in many applications.

D.E.R.™ 3913 Epoxy Resin has been designed to impart flexibility to what may otherwise be a rather brittle epoxy binder systems. D.E.R.™ 3913 Liquid Epoxy Resin is compatible with common liquid aromatic epoxy resins and can be blended with them in any ratio in order to tailor cure characteristics as well as the performance of binder systems based on this resin (flexibility, reaction rate, chemical resistance etc.). When used in combination with cycloaliphatic amine-epoxy adduct curing agents formulations can be made with high elongation at break at room temperature as well as at -20°C.

- Applications**
- Adhesives
 - Building & Civil Engineering: Chemical Anchoring
 - Building & Civil Engineering: Crack Injection
 - Building & Civil Engineering: Mortars & Grouts
 - Building & Civil Engineering: Primers & Impregnation
 - Building & Civil Engineering: Roller Coating Flooring
 - Building & Civil Engineering: Self-leveling Flooring
 - Castings / Potting/ Encapsulation / Tooling
 - Industrial Coatings: Marine and Protective

Dow Epoxy	Nominal Value	Unit	Test Method
EEW	345 to 365	g/eq	
Viscosity, absolute (25°C)	7500 to 9500	mPa·s	ASTM D445
Colour (Max. Pt-Co., Solution)	300		ASTM D1209
Density (25°C)	1.09	g/cm³	ASTM D4052

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

Safety Considerations

The Dow Chemical Company provides its customers with a product specific Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS) to cover potential health effects, safe handling, storage, use and disposal information. Dow strongly encourages its customers to review the MSDS or SDS on its products and other materials prior to their use.

For further handling information, consult the Dow brochure entitled, DOW Epoxy Curing Agents Product Stewardship Manual, Safe Handling and Storage, Form No. 296-01331 and the Dow technical bulletin, Product Coding, Shelf-life and Storage Stability, Form No. 296-01657.

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- use as a critical component in medical devices that support or sustain human life; or
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Additional Information

North America		Europe/Middle East	+800-3694-6367
U.S. & Canada:	1-800-441-4369		+31-11567-2626
	1-989-832-1426	Italy:	+800-783-825
Mexico:	+1-800-441-4369		
Latin America		South Africa	+800-99-5078
Argentina:	+54-11-4319-0100		
Brazil:	+55-11-5188-9000		
Colombia:	+57-1-219-6000	Asia Pacific	+800-7776-7776
Mexico:	+52-55-5201-4700		+603-7965-5392

www.dowepoxy.com

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