Cardolite® NC-514 Flexible Epoxy Resin Technical Datasheet

DESCRIPTION

Cardolite NC-514 is a di-functional glycidyl ether epoxy resin that unlike other flexible resins exhibits the reactivity and chemical characteristics of a traditional Bisphenol A type resin. The chain flexibility resulting from the 8 carbons that separate the aromatic groups increases flexibility when mixed with traditional resins without loss of properties.

$$O - CH_{2} - CH - CH_{2}$$

$$(CH_{2})_{7} - CH - (CH_{2})_{6} - CH_{3}$$

$$O - CH_{2} - CH - CH_{2}$$

CHEMICAL STRUCTURE

PROPERTIES

PROPERTY	SPECIFICATION	Test Method
Viscosity @ 25°C (cPs)	10,000 - 35,000	ASTM D2196
Epoxy Equivalent Weight (EEW) ¹	350 - 500	ASTM D1652-97
Hydrolysable chlorine (%)	≤ 2	ASTM D1726-11
Volatile Loss (% weight)	≤ 3	ASTM D2369-98

PROPERTY	TYPICAL VALUE	Test Method
Appearance	Reddish brown liquid	Visual
Color (Gardner)	17	ASTM D1544
Density @ 25°C (kg/L) (lbs/gal)	1.10 9.18	ASTM D1475
Flash point	~ 90°C / 194°F	ASTM D93
Recommended Use Level (% of total resin weight)	≤ 25	-
Shelf Life (Months)	6	-

Typical properties are not to be construed as specifications

APPLICATIONS

While usable in many epoxy applications, Cardolite NC-514 was designed for applications in marine, protective, and industrial coatings that require increased flexibility while still maintaining excellent chemical, water, and abrasion resistance. Cardolite NC-514 can also be used in structural adhesive applications.

ADVANTAGES

- Adds flexibility while maintaining performance
- Excellent chemical and water resistance
- Good reactivity

- Compatible with most epoxy resins
- Aids in Bis-Phenol F resin and curing agent compatibility
- Based from natural, renewable, non-food raw material feedstock

¹Based on total product weight

REGULATORY STATUS

Please refer to the material safety data sheet (MSDS). Specific information regarding chemical inventory listing can be obtained from your local sales representative.

SAFETY PRECAUTIONS

Please refer to the material safety data sheet (MSDS). Copies of the MSDS can be requested on the Cardolite website or via your local sales representative.

STABILITY AND STORAGE

Cardolite products may absorb moisture and carbon dioxide when left in open containers, which could result in increased viscosity, discoloration, reduction of reactivity, and/or crystallization of the products. These products should be kept tightly sealed in their original containers when not in use, and stored in a cool, dry place.

CONTACT INFORMATION



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