Cardolite[®] NX-2021 Multipurpose Resin Modifier Technical Datasheet

DESCRIPTION

Cardolite NX-2021 is a low viscosity multipurpose resin modifier and accelerator designed for use in coatings, adhesives, and other applications. The long hydrophobic aliphatic side chain of the cardanol molecule gives this product a very low viscosity and provides excellent early water resistance and corrosion protection. Used as an epoxy diluent and accelerator, high viscosity solvent or solvent free formulations can achieve enhanced workability, higher solids, and faster cure without sacrificing other performance properties using this product.

$$\begin{array}{c} \text{OH} \\ \\ \\ \text{C}_{r}\text{H}_{s}\text{CH} = \text{CH} - \text{CH}_{2} - \text{CH} = \text{CH} - \text{C}_{a}\text{H}_{r} \end{array}$$

CHEMICAL STRUCTURE

PROPERTIES

PROPERTY	SPECIFICATION	TEST METHOD
Color (Gardner)	≤ 18	ASTM D1544
Viscosity @ 25°C (cPs)	45 - 75	ASTM D2196
Density @ 25°C (kg/L)	0.925 - 0.945	ASTM D1475

Property	TYPICAL VALUE	Test Method
Appearance	Yellow brown liquid	Visual
Flash point	> 260°C / 500°F	ASTM D93
Recommended Use Level (% of total resin weight)	≤ 20	-
Shelf Life (Months)	12	-

Typical properties are not to be construed as specifications

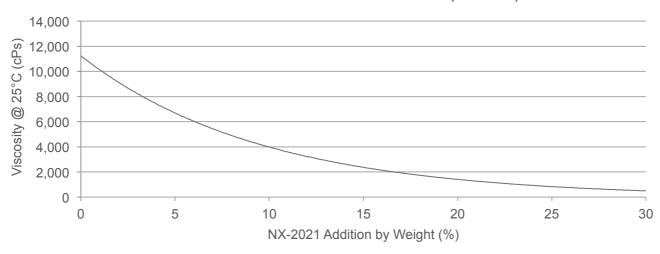
APPLICATIONS

Cardolite NX-2021 was designed as an accelerator and formulation tool to reduce VOC levels and viscosity on coating systems used in heavy duty marine, protective, industrial, and floor coatings. Although higher in viscosity than some other modifiers, the structure of this product gives excellent dilution efficiency to help rapidly reduce viscosity for improved pigment wetting, flexibility, and general application properties. Coating physical properties such as water resistance, corrosion protection, chemical resistance, and gloss are not significantly compromised with the addition of NX-2021. This product can be added to either component of an epoxy system to provide good cure acceleration and replace or reduce levels of hazardous accelerators like nonylphenol.

ADVANTAGES

- Lowers viscosity while maintaining performance
- Preserves chemical and water resistance
- · Good dilution and acceleration effects
- Improves flexibility
- Improves pigment wetting properties
- Usable on both sides on an epoxy formulation
- Low migration rate
- · Low volatility and high flash point
- Non-toxic
- Based from natural, renewable, non-food raw material feedstock

NX-2021 DILUTION CURVE WITH LIQUID EPOXY RESIN (EEW=190)



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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