Cardolite® NC-557
Epoxy Curing Agent
Technical Datasheet

DESCRIPTION

Cardolite NC-557 is a low viscosity, solvent and benzyl alcohol free phenalkamine curing agent designed for epoxy coating applications protecting metal and concrete substrates. It has excellent rapid cure properties, even at low temperatures, offers very good chemical resistance, and provides excellent adhesion on wet or otherwise unprepared surfaces and green concrete. Heavy duty industrial, marine service, protective, floor, and potable water contact coatings can benefit from this product's outstanding water resistance and corrosion protection. This product is very similar to Cardolite NC-558, except with faster cure properties.

PROPERTIES

PROPERTY	SPECIFICATION	TEST METHOD
Color (Gardner)	≤ 17	ASTM D1544
Viscosity @ 25°C (cPs)	450 - 1,500	ASTM D2196
Amine Value (mg KOH/g)	330 - 360	ASTM D2074
Volatile Loss (% weight)	≤ 4.5	ASTM D2369-98

PROPERTY	TYPICAL VALUE	TEST METHOD
Appearance	Yellow brown liquid	Visual
Theoretical Active Hydrogen Equivalent (AHEW)[1]	95	Calculated
Density @ 25°C (kg/L) (lbs/gal)	0.98 - 1.00 8.15 - 8.35	ASTM D1475
Flash point	104°C / 219°F	ASTM D93
Recommended Use Level (phr, EEW 190)	50	-
Shelf Life (Months)	6	-

Typical properties are not to be construed as specifications
[1] Based on total product weight

APPLICATIONS

Cardolite NC-557 is usable in high solids or solvent free surface tolerant marine, industrial maintenance, protective, and floor coatings. Good chemical resistance and suitability for contact with potable water* make this curing agent especially acceptable for concrete or metal tank linings and pipe coatings. It can be used for coating applications under cold and humid conditions, even over damp and poorly prepared surfaces. This product's fast cure and good hardness make it ideal for applications requiring fast return to service. Its ability to cure over a wide temperature range and non-critical mix ratio can bring coatings broad application latitude.

* Dependent on country regulations

ADVANTAGES

- Excellent combination of rapid cure and long pot-life at both ambient and low (<5°C/40°F) temperatures
- Continues to chemically crosslink at very low temperatures (<0°C/32°F)
- Low viscosity for excellent workability
- Good adhesion to poorly prepared surfaces
- Moisture tolerant during cure
- Excellent early water resistance
- Very good chemical resistance
- Good flexibility
- Compatible with most epoxy resins, solvents and their blends
- Superior corrosion resistance mitigating the need for anti-corrosion pigments
- Non-critical mix ratio
- No induction time required
- Non-toxic
- Solvent and benzyl alcohol free
- Based from natural, renewable, non-food chain raw material feedstock

Cure Properties

	Formulation	Test Method
Liquid Epoxy Resin (pbw, EEW 190)	100	
Cardolite NC-557 (pbw)	50	
Mix viscosity @ 25°C (cPs)	5,500	
Gel time, 50 g @ 25°C (min)	22	NTM-15
Thin film dry times, 8 mils (200 micron)		
@ 25°C (77°F) (hrs hard/through)	7/9	ASTM D5895
@ 5°C (41°F) (hrs hard/through)	16.5 / 24.5	ASTM D5895
@ 0°C (32°F) (hrs hard/through)	27.5 / 33.5	ASTM D5895
Film appearance @ 10°C, 92% RH	Blush	Visual

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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