

Cardolite® NX-2009

Epoxy Curing Agent

Technical Datasheet

DESCRIPTION

Cardolite NX-2009 is a very low viscosity, light color phenalkamine curing agent suitable for epoxy coating applications protecting concrete and metal substrates. It has excellent rapid cure and film properties, even at low temperatures, and provides excellent adhesion on wet or otherwise unprepared surfaces. While designed primarily for floor topcoat applications, this curing agent can also be used in anti-corrosive metal coatings. It has good hardness, gloss and color retention, and excellent leveling properties.

PROPERTIES

PROPERTY	SPECIFICATION	TEST METHOD
Color (Gardner)	≤ 10	ASTM D1544
Viscosity @ 25°C (cPs)	290 - 800	ASTM D2196
Amine Value (mg KOH/g)	300 - 350	ASTM D2074

PROPERTY	TYPICAL VALUE	TEST METHOD
Appearance	Light yellow liquid	Visual
Theoretical Active Hydrogen Equivalent (AHEW) ¹	95	Calculated
Density @ 25°C (kg/L) (lbs/gal)	1.033 8.62	ASTM D1475
Flash point	> 93°C / 200°F	ASTM D93
Recommended Use Level (phr, EEW 190)	40 - 50	-
Shelf Life (Months)	12	-

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

APPLICATIONS

Cardolite NX-2009 is usable in solvent free or high solids surface tolerant coatings over concrete or metal substrates, especially topcoats. This product's very low viscosity gives it good wetting and leveling properties, and its fast cure and good hardness make it ideal for fast return to service. Its ability to cure over a wide temperature range with excellent film appearance and non-critical mix ratio can bring coatings broad application latitude. A durable, high performance, compatible barrier protection system for new, damp, or repaired concrete can be formulated using this product in a topcoat over a surface primer based on another Cardolite phenalkamine, such as Cardolite NC-558, NX-2003, NX-5198, or NX-5454.

ADVANTAGES

- Excellent combination of fast cure and good pot-life at both ambient and low (<5°C/40°F) temperatures
- Good wetting and adhesion to poorly prepared surfaces
- Excellent leveling properties
- Excellent film appearance at extreme conditions
- Moisture tolerant during cure
- Excellent early water resistance
- Very good chemical resistance
- Good abrasion resistance
- Good flexibility
- Compatible with most epoxy resins, solvents and their blends
- Good corrosion resistance
- Good yellowing resistance
- Non-critical mix ratio
- No induction time required
- Non-toxic and non-corrosive
- Solvent free
- Based from natural, renewable, non-food chain raw material feedstock

CURE PROPERTIES

	FORMULATION	TEST METHOD
Liquid Epoxy Resin (pbw, EEW 190)	100	
Cardolite NX-2009 (pbw)	50	
Mix viscosity @ 25°C (cPs)	3,300	
Gel time, 50 g @ 25°C (min)	31	NTM-15
Thin film dry times, 8 mils (200 micron)		
@ 25°C (77°F) (hrs hard/through)	4/5	ASTM D5895
@ 5°C (41°F) (hrs hard/through)	12 / 21.5	ASTM D5895
@ 0°C (32°F) (hrs hard/through)	20.5 / 34.5	ASTM D5895
Film appearance @ 10°C, 92% RH	Hazy	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.

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