Cardolite® LITE 2001 Epoxy Curing Agent Technical Datasheet

DESCRIPTION

Cardolite LITE 2001 is a solvent-free, light color phenalkamine curing agent designed for epoxy coating applications. Very similar in performance to Cardolite NC-541, it has excellent rapid cure properties, including at low temperatures, and provides good adhesion on wet or otherwise unprepared surfaces. Heavy duty industrial, protective, and marine service coatings can benefit from this product's outstanding water resistance and corrosion protection. This product's light wet color broadens the use of phenalkamines into tinted coating systems.

PROPERTIES

| PROPERTY | SPECIFICATION | TEST METHOD |
|---------------------------------|--------------------------|---------------|
| Color (Gardner) | ≤ 10 | ASTM D1544 |
| Viscosity @ 25°C (cPs) | 25,000 - 50,000 | ASTM D2196 |
| Amine Value (mg KOH/g) | 300 - 335 | ASTM D2074 |
| Volatile Loss (% weight) | ≤ 3.0 | ASTM D2369-98 |
| Density @ 25°C (kg/L) (lbs/gal) | 0.97 - 1.01 8.1 - 8.4 | ASTM D1475 |

| PROPERTY | TYPICAL VALUE | Test Method |
|--|-----------------------------|-------------|
| Appearance | Light yellow viscous liquid | Visual |
| Theoretical Active Hydrogen Equivalent (AHEW) ¹ | 132 | Calculated |
| Flash point | 62°C / 144°F | ASTM D93 |
| Recommended Use Level (phr, EEW 190) | 65 - 75 | - |
| Shelf Life (Months) | 12 | - |

Typical properties are not to be construed as specifications

APPLICATIONS

Cardolite LITE 2001 is suitable for medium to high solids surface tolerant marine, industrial, and protective 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. Applications requiring good initial color will benefit from this product's light wet color.

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)
- Light wet color for broad color range and use in tinting systems
- Good adhesion to poorly prepared surfaces
- Moisture tolerant during cure
- Excellent early water resistance
- Good chemical resistance
- Good flexibility

- Compatible with most epoxy resins, solvents and their blends
- Superior corrosion resistance mitigating the need for anticorrosion pigments
- Good dilution efficiency with solvents
- Non-critical mix ratio
- No induction time required
- Non-toxic and non-corrosive
- Based from natural, renewable, non-food chain raw material feedstock

¹ Based on total product weight

| | FORMULATION | TEST METHOD |
|--|-------------|-------------|
| Liquid Epoxy Resin (pbw, EEW 190) | 100 | |
| Cardolite LITE 2001 (pbw) | 68 | |
| Mix viscosity @ 25°C (cPs) | 14,600 | |
| Gel time, 50 g @ 25°C (min) | 75 | NTM-15 |
| Thin film dry times, 8 mils (200 micron) | | |
| @ 25°C (77°F) (hrs hard/through) | 3/3.5 | ASTM D5895 |
| @ 5°C (41°F) (hrs hard/through) | 12.5/15.5 | ASTM D5895 |
| @ 0°C (32°F) (hrs hard/through) | 19/30 | ASTM D5895 |
| Film appearance @ 10°C, 92% RH | Clear | 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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