Epoxy Curing Agents and Modifiers

LMK Epoxy Hardener M

Description

LMK Epoxy Hardener M is an amidoamine intended for use with liquid epoxy resins with ambient temperature or heat cure. It can be used as the sole curing agent or in a mixture with other amine-based curing agents, such as modified aliphatic amines, to adjust the cure rate or other properties. LMK Epoxy Hardener M can be used in compliance with 21 CFR 175.300 as a component of FDA- compliant epoxy coatings, can cements and adhesives.

Advantages

- Low viscosity
- Moderate pot life
- · Less critical mixing ratio

Applications

- Flooring and concrete primers
- · Concrete repair mortars and grouts
- · High-solids coatings

Storage Life

At least 24 months from the date of manufacture in the original sealed container at ambient temperature. Store away from excessive heat and humidity in tightly closed containers.

Handling Precautions

Refer to the Material Safety Data Sheet for LMK Epoxy Hardener M.

Typical Properties

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Appearance	Amber Liquid
Color (Gardner)	7
Viscosity @ 77 °F (cP)	250
Amine Value (mg KOH/g)	445
Specific Gravity @ 77 °F	0.95
Density @ 77 °F (lb/gal)	7.9
Flash Point (closed cup) (°F)	383
Equivalent Wt/{H}	90
Recommended Use Level (phr, EEW = 1	90) 50

Typical Handling Properties*

Mixed Viscosity @ 77 °F (cP)	1,400
Gel Time (150g mix @ 77 °F) (min)	135
Thin Film Set Time @ 77 °F (hr)	12
Peak Exotherm (100g mix @ 77 °F) (°F)	237
Peak Exotherm Time (min)	210

Typical Performance*

(Cured 7 days @ 77 °F)	
Heat Deflection Temp. (ASTM D648-264 psi)	(°F) 113
Barcol Hardness (Model GYZJ-935)	74
Bond Strength (mild steel to mild steel) (psi)	2,680
Flexural Strength (psi)	11,410
Flexural Modulus (thousand psi)	273
Tensile Strength (psi)	6,850
Tensile Modulus (thousand psi)	341
Elongation (%)	2.0

*LMK Epoxy Hardener M formulated with standard Bisphenol-A based (DGEBA, EEW=190) epoxy resin.

Typical Cure Schedule

- 2 to 7 days at ambient temperature.
- 2 hours at 140 °F plus 1 hour at 212 °F.

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