

ANCAMIDE[®] 503

Curing Agent

DESCRIPTION

Ancamide 503 curing agent is an aliphatic amidoamine curing agent designed for use with liquid epoxy resin. Special features of this room temperature curing agent are low viscosity, relatively long pot life and non-critical loading. It is ideal for use in concrete coatings, flooring, crack injection, adhesives (especially new to old concrete), and casting applications.

TYPICAL PROPERTIES

Property	Value	Unit	Method
Appearance	Amber Liquid		
Color	10	Gardner	
Viscosity @ 25°C	300-500	mPa.s	ASTM D 1544-80
Amine Value	480-520	mg KOH/g	Brookfield RVTD, spindle 4
Specific Gravity @ 21°C	0.95		
Equivalent Wt/{H}	95		
Recommended Use Level	50	PHR	Perchloric Acid Titration

ADVANTAGES

- Excellent adhesion to concrete
- Moisture tolerant
- Non-critical loading

APPLICATIONS

- Concrete coatings
- Flooring
- Crack injection
- Adhesives

STORAGE AND HANDLING

Refer to the Safety Data sheet for Ancamide 503 curing agent.

SHELF LIFE

At least 24 months from the date of manufacture in the original sealed container at ambient temperature. Material may crystallize or solidify upon exposure to low temperatures. Crystallized or solidified material can be utilized after melting at elevated temperatures without impacting handling or physical properties. It is recommended that the material be heated to 50-70°C while mixing continuously for 1 hour. Once the solidified material has fully homogenized, it can be cooled to room temperature and utilized under normal conditions.

TYPICAL CURE SCHEDULE

7 days at room temperature.

TYPICAL HANDLING PROPERTIES*

Property	Value	Unit	Method
Mixed Viscosity at 25°C	1,500	mPa.s	ASTM D 1544-80
Gel Time (150g mix at 25°C)	70	mins	Seta CC
Peak Exotherm (150g mix at 25°C)	138	°C	
Time to Peak Exotherm	68	mins	
Thin Film Set Time 25°C	9	hrs	Techne GT-3 Gelation Timer
Typical cure schedule			
(i) 7-14 days at ambient			
(ii) 2 days @ 25°C + 2h @ 100°C			

TYPICAL PERFORMANCE

Property	Value	Unit	Method
Cure Schedule (ii)			
Tensile Strength	45	MPa	ASTM D 5895
Tensile Modulus	2.1	GPa	ASTM D 5895
Flexural Strength	61	MPa	
Flexural Modulus	1.7	GPa	
Heat Distortion Temperature	48	°C	
Tensile Elongation at Break	2.1	%	

*With liquid Bisphenol-A based epoxy resin (EEW=190).

All amidoamine curing agents are susceptible to discoloration as a result of the formation of a loose organometallic complex between the Amidoamine and iron (Fe 3+). Should discoloration take place, it will have no impact upon product performance and will normally dissipate once the curing agent is mixed with epoxy resin and other materials.

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