

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.

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.

TABLE 1: TYPICAL PROPERTIES

Appearance	Amber Liquid
Color (Gardner)	10
Viscosity @ 25°C, [mPa.s]²	300-500
Amine Value, [mg KOH/g]³	480-520
Specific Gravity @ 21°C	0.95
Equivalent Wt/{H}	95
Recommended use Level, [PHR]⁴	50

TABLE 2: TYPICAL HANDLING PROPERTIES*

Mixed Viscosity at 25°C, [mPa.s]²	1,500
Gel Time (150g mix at 25°C), [mins]⁵	70
Peak Exotherm (150g mix at 25°C), [°C]	138
Time to Peak Exotherm [mins]	68
Thin Film Set Time 25°C, [hrs]⁶	9
Typical cure schedule:	
(i) 7-14 days at ambient	
(ii) 2 days @ 25°C + 2h @ 100°C	

TABLE 3: TYPICAL PERFORMANCE

Cure Schedule (ii)	
Tensile Strength, [MPa]⁷	45
Tensile Modulus, [GPa]⁷	2.1
Flexural Strength, [MPa]⁸	61
Flexural Modulus, [GPa]⁸	1.7
Heat Distortion Temperature, [°C]⁹	48
Tensile Elongation at Break [%]	2.1

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

Footnotes:

- (2) ASTM D 1544-80
- (3) Brookfield RVTD, spindle 4
- (4) Perchloric Acid Titration
- (5) Seta CC
- (6) Techne GT-3 Gelation Timer
- (7) ASTM D 5895

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.

Epoxy Curing Agents and Modifiers

ANCAMIDE® 503 Curing Agent

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