

Epoxy Curing Agents and Modifiers

Ancamide[®] 501 Curing Agent Technical Datasheet

DESCRIPTION

Ancamide 501 is an accelerated amidoamine curing agent designed for use with liquid epoxy resin. It offers faster cure speed and improved chemical resistance over unmodified amidoamines.

PERFORMANCE ADVANTAGES

- Faster cure than standard amidoamines
- Low viscosity
- Excellent bonding for construction materials, particularly concrete

APPLICATIONS

- Trowelable flooring
- Concrete coatings and primers
- Repair mortars and patching compounds
- Concrete adhesives and grouts

STORAGE LIFE

At least 12 months from the date of manufacture in the original sealed container at ambient temperature.

HANDLING PRECAUTIONS

Refer to the Material Safety Data Sheet for Ancamide 501 curing agent.

TYPICAL PROPERTIES

Appearance	Amber liquid
Colour ¹ (Gardner)	10
Viscosity ² @ 25 °C, [mPa.s]	450-800
Amine Value ³ , [mg KOH/g]	520-570
Specific Gravity @ 21 °C, [g/ml]	0.99
Equivalent Wt/{H}	68
Recommended use Level ⁴ , [PHR]	35

TYPICAL HANDLING PROPERTIES

Mixed Viscosity ² at 25°C, [mPa.s]	3,000
Gel Time ⁵ (150g mix at 25°C), [mins]	40
Peak Exotherm (150g mix at 25°C), [°C]	158
Time to Peak Exotherm [mins]	45
Thin Film Set Time ⁶ @ 25°C, [hrs]	7.5

Typical cure schedule

(i) 7-14 days at ambient

(ii) 2 days @ 25°C + 2hrs @ 100°C

TYPICAL PERFORMANCE PROPERTIES

Cure Schedule (ii)	
Tensile Strength ⁷ , [MPa]	43
Tensile Modulus ⁷ , [GPa]	3.1
Flexural Strength ⁸ , [MPa]	60
Flexural Modulus ⁸ , [GPa]	2.2
Heat Distortion Temperature ⁹ , [°C]	46
Tensile Elongation at Break [%]	1.3

1 ASTM D 1544-80

2 Brookfield RVTD, Spindle 4

3 Perchloric Acid Titration

4 With Bisphenol A diglycidyl ether (EEW=190)

5 Techne GT-3 Gelation Timer

6 BK Drying Recorder Phase III

7 ISO 527

8 ISO 178

9 ASTM D648

All amidoamine curing agents are susceptible to discolouration as a result of the formation of a loose organometallic complex between the Amidoamine and iron (Fe 3+). Should discolouration 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.