

Epoxy Curing Agents and Modifiers

Ancamide® 506 Curing Agent

DESCRIPTION

Ancamide 506 curing agent is an amidoamine with a very high imidazoline content. It is intended for use in ambient temperature or heat curing of liquid epoxy resins.

Ancamide 506 curing agent can be used in compliance with 21 CFR 175.300 and 21 CFR 176.170 as a component of FDA-compliant epoxy coatings, can cements and adhesives. The product can also be used to extend the pot life of other amine curing agents, such as Ancamine® 1693 curing agent, for high-solids coatings to meet CARB regulations.

ADVANTAGES

- Low viscosity
- Very long pot life
- Low exotherm

APPLICATIONS

- Castings and laminates
- Flooring and concrete repair compounds
- High-solids coatings
- Potting, encapsulation and impregnation
- Adhesives
- Pot life extender for other curing agents

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 Ancamide 506 curing agent.

TYPICAL CURE SCHEDULE

- 7 days at ambient temperature.
- Gel at ambient temperature plus 2 hours at 212 °F.

TYPICAL PROPERTIES

Appearance	Amber Liquid
Color (Gardner)	7
Viscosity @ 77 °F (cP)	250
Amine Value (mg KOH/g)	420
Specific Gravity @ 77 °F	0.940
Density @ 77 °F (lb/gal)	7.9
Flash Point (closed cup) (°F)	320
Equivalent Wt/{H}	105
Recommended Use Level (phr, EEW = 190)	55

TYPICAL HANDLING PROPERTIES

	A*	B*
Mixed Viscosity @ 77 °F (cP)	1,400	780
Gel Time (150g mix @ 77 °F) (min)	385	406
Thin Film Set Time @ 77 °F (hr)	23	35

TYPICAL PERFORMANCE (with bis-A resin—A*)

(Gel @ ambient temperature plus 2 hours at 212 °F)

Tensile Strength (psi)	6,875
Tensile Modulus (thousand psi)	290
Tensile Elongation at Break (%)	4.9
Flexural Strength (psi)	10,640
Flexural Modulus (thousand psi)	200
Heat Deflection Temperature (ASTM D648-264 psi) (°F)	136
Barcol Hardness (Model GYZJ-935)	67
Bond Strength (mild steel to mild steel) (psi)	3,320

TYPICAL PERFORMANCE (with diluted resin—B*)

(7 days cure @ 77 °F)

Compressive Strength @ Yield (psi)	8,100
Compressive Modulus (thousand psi)	217
Tensile Strength (psi)	4,400
Tensile Modulus (thousand psi)	98
Tensile Elongation at Break (%)	26
Flexural Strength (psi)	9,200
Flexural Modulus (thousand psi)	257

A* Ancamide 506 curing agent formulated with standard Bisphenol-A (DGEBA, EEW=190) epoxy resin.

B* Ancamide 506 curing agent with 90% DGEBA resin (EEW=190) and 10% Epodil® 748 diluent (C₁₂–C₁₄ alkyl glycidyl ether).

Air Products and Chemicals, Inc., 7201 Hamilton Boulevard, Allentown, PA 18195-1501

Tel: (800) 345-3148, (610) 481-6799, Fax: (610) 481-4381, <http://www.airproducts.com/epoxyadditives>

The information contained herein is offered without charge for use by technically qualified personnel at their discretion and risk. All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable, but the accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto.