

Epoxy Curing Agents and Modifiers

Ancamine® 1608 Curing Agent

DESCRIPTION

Ancamine 1608 curing agent is a light-colored aliphatic amine adduct. When used with liquid/solid epoxy resins in solvent-free coating formulations, it provides very good solvent and alcohol resistance. It also imparts good mechanical properties.

ADVANTAGES

- Fast cure speed
- Good chemical resistance to solvents including trichloroethane and xylene, water detergent solutions, inorganic acids and alkalis and denatured alcohol; moderate against alcohols and skydrol; poor against ketones, glycol ethers and toluene
- Good hot water resistance
- Compatible with multifunctional resins

APPLICATIONS

- Solvent-free coatings
- Laminates
- Adhesives
- Flooring and mortars
- Accelerator 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 on Ancamine 1608 curing agent.

TYPICAL CURE SCHEDULE

- 1) 2 to 7 days at ambient temperature.
- 2) Gel at ambient temperature plus 2 hours at 212 °F.

TYPICAL PROPERTIES

Appearance	Clear, Straw-Colored Liquid
Color (Gardner)	3
Viscosity @ 77 °F (cP)	3,500
Amine Value (mg KOH/g)	800
Specific Gravity @ 77 °F	1.08
Density @ 77 °F (lb/gal)	9.0
Flash Point (closed cup) (°F)	219
Equivalent Wt/{H}	44
Recommended Use Level (phr, EEW=190)	20

TYPICAL HANDLING PROPERTIES*

Gel Time (150g mix @ 77 °F) (min)	14
Thin Film Set Time_	
@ 77 °F (hr)	3.0
@ 40 °F (hr)	10.0
Peak Exotherm (100g mix @ 77 °F) (°F)	198
Peak Exotherm Time (min)	24

TYPICAL PERFORMANCE*

(7 day cure @ 77 °F)	
Compressive Strength (psi)	16,400
Compressive Modulus (thousand psi)	422
Flexural Strength (psi)	9,210
Flexural Modulus (thousand psi)	333
Tensile Strength (psi)	4,610
Tensile Modulus (thousand psi)	347
Elongation (%)	1.5
Heat Deflection Temperature (ASTM D648-264 psi) (°F)	147
Glass Transition Temperature (°F)	139
Barcol Hardness (Model GYZJ-935)	81
Bond Strength (mild steel to mild steel) (psi)	1,350

* Ancamine 1608 curing agent formulated with standard Bisphenol-A based (DGEBA, EEW=190) epoxy resin.

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.

SUPPLEMENTARY DATA**High-Solids Sprayable Coating Formulation**

PART A	Parts by Weight	PART B	Parts by Weight
Liquid Epoxy Resin EEW=190	55.0	Ancamine 1608	11.0
Titanium Dioxide R-960	14.0	Xylene	25.0
Barium Sulfate	22.0	Butanol	3.0
Asbestine	8.0		
Bentone 27	1.0		
	100.0		39.0

MIXED PROPERTIES

Nonvolatiles, % by Weight	80	Hand Dry Time @ 68 °F (hr)	7
Pigment:Binder Ratio	0.66/1	Adhesion to Sandblasted Sheer Steel	Good
Usable Life (10 lb mass @ 77 °F) (min)	30	Film Surface	Matte with Minimal Exudation
Dust Dry Time @ 68 °F (hr)	6		