

ANCAMINE® 1638 Curing Agent**DESCRIPTION**

Ancamine 1638 is a modified aliphatic polyamine adduct intended for use as a curing agent for liquid epoxy resin. It imparts high heat resistance characteristics together with very good chemical resistance following cure at ambient temperature.

This activated aliphatic amine is designed for use in both structural and general purpose adhesives, patch repair compounds and wet lay-up laminating. Its low viscosity, high reactivity and low loading also renders it of use as a modifier for other amine curing agents.

ADVANTAGES

- High heat resistance
- Excellent chemical resistance to mineral acids, aqueous alkali solutions, water and aromatic hydrocarbons; good chemical resistance against alcohol and some chlorinated hydrocarbons

APPLICATIONS

- Structural and general purpose adhesives
- Patch repair compounds
- Wet lay-up laminating
- Modifier for other amine curing agents

SHELF LIFE

At least 24 months from the date of manufacture in the original sealed container at ambient temperature.

STORAGE AND HANDLING

Refer to the Safety Data Sheet for Ancamine 1638 curing agent.

TYPICAL PROPERTIES

Appearance	Clear amber liquid
Colour¹ (Gardner)	4
Viscosity² @ 25°C [mPa.s]	70-130
Amine Value³ [mg KOH/g]	1,000-1,100
Specific Gravity @ 21°C [g/ml]	1.03
Equivalent Wt/{H}	31
Recommended use Level⁴, [PHR]	15

TYPICAL HANDLING PROPERTIES

Mixed Viscosity² at 25°C, [mPa.s]	3,800
Gel Time⁵ (150g mix at 25°C), [mins]	14
Peak Exotherm (150g mix at 25°C), [°C]	170
Thin Film Set Time⁶ @ 25°C, [h]	2.5
Typical cure schedule	
(i) 7 days cure at ambient temperature	
(ii) Gel at ambient temperature + 2h at 100°C	

TYPICAL PERFORMANCE PROPERTIES

Following cure schedule (ii)	
Tensile Strength⁷, [MPa]	40
Tensile Modulus⁷, [GPa]	2.9
Tensile Elongation at Break [%]	1.6
Flexural Strength⁸, [MPa]	101
Flexural Modulus⁸, [GPa]	2.4
Heat Distortion Temperature⁹, [°C]	95

Footnotes:

- (1) ASTM D 1544-80
- (2) Brookfield RVT, 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

Epoxy Curing Agents and Modifiers

ANCAMINE® 1638 Curing Agent

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