Product information

ANCAMINE® 1638

Curing Agent

DESCRIPTION

Ancamine 1638 is a modified aliphatic amine 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 structural and general purpose adhesives, patch repair compounds as well as 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.

TYPICAL PROPERTIES

Property	Value	Unit	Method
Appearance	Clear amber liquid		
Colour	4	Gardner	ASTM D 1544-80
Viscosity @ 25°C	80-130	mPa.s	Brookfield RVTD, Spindle 4
Amine Value	1,040-1,100	mg KOH/g	Perchloric Acid Titration
Specific Gravity @ 21°C	1.03	g/ml	
Equivalent	31	Wt/{H}	
Recommended use Level	15	PHR	With Bisphenol A diglycidyl ether (EEW=190)

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.

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TYPICAL HANDLING PROPERTIES

Property	Value	Unit	Method
Mixed Viscosity at 25°C	3,800	mPa.s	Brookfield RVTD, Spindle 4
Gel Time (150g mix @ 25°C)	14	mins	Techne GT-3 Gelation Timer
Peak Exotherm (150g mix at 25°C)	170	°C	
Thin Film Set Time6 @ 25°C	2.5	h	BK Drying Recorder Phase III

TYPICAL CURE SCHEDULE

7 days cure at ambient temperature
Gel at ambient temperature + 2h at 100°C

TYPICAL PERFORMANCE PROPERTIES

Property	Value	Unit	Method
Following cure schedule (ii)			
Tensile Strength	40	MPa	ISO 527
Tensile Modulus	2.9	GPa	ISO 527
Tensile Elongation at Break	1.6	%	
Flexural Strength	101	MPa	ISO 178
Flexural Modulus	2.4	GPa	ISO 178
Heat Distortion Temperature	95	°C	ASTM D648

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