Product information

ANCAMIDE® 2781

Curing Agent

DESCRIPTION

Ancamide 2781 curing agent is a versatile, low viscosity hardener designed to cure liquid epoxy resin at elevated temperatures. The unique chemistry offers a longer working time than traditional amidoamines. This can enhance the processing of complex weaved fabric by optimum fiber wetting, minimized material waste and improved overall throughput and provide an overall excellent balance of pot life and low temperature cure. It is recommended for use in cure-in-place-pipe, composite processing, electronics and industrial electrical applications.

TYPICAL PROPERTIES

Property	Value	Unit	Method
Appearance	Amber liquid		
Color	max. 12	Gardner	ASTM D1544
Viscosity @ 77°F/25°C	80-120	mPa.s	Brookfield RVTD, spindle 27
Specific Gravity @ 77°F/25°C	7.68	lb/gal	
Recommended Use Level	55	PHR	Bisphenol-A based epoxy resin (EEW=190) Cure schedule cast and composite panel: 2 h @ 150°F/65°C Composite panel by vacuum-assisted resin transfer molding Fiber type: E-glass (275 g/m^2) Unidirectional Fiber volume: 60 ± 3 %
Equivalent Wt/{H}	104		

ADVANTAGES

- Longer working time
- Low exotherm
- Low viscosity

APPLICATIONS

- Cure-in-Place-Pipe
- Composites – Filament winding, VARTM
- Resin Infusion
- Potting and encapsulation

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TYPICAL CURE SCHEDULE

2 h @ 150°F/65°C
Post cure at higher temperatures (200°F/100°C) can be accomplished depending on processing flexibility and final product performance needs.

SHELF 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.

STORAGE AND HANDLING

Refer to the Safety Data Sheet for Ancamide 2781 curing agent.

TYPICAL HANDLING PROPERTIES*

Property	Value	Unit	Method
Mixed Viscosity @ 77°F/ 25°C	850	mPa.s	Brookfield RVTD, spindle 27
Gel Time 150 g mix @ 77°F/ 25°C	400-500	min	Techne Gelation Timer, 150 g mix
Time to 10,000 mPa.s @ 77°F/ 25°C	425	min	Brookfield RVTD, spindle 27

THERMAL PERFORMANCE*

Property	Value	Method
Glass Transition Temperature	142°F / 61°C	DSC @ 10°C/min second heating scan
Glass Transition Temperature	127°F / 53°C	DMA @ 3°C/min- Three point bending (Tan Delta)

MECHANICAL PERFORMANCE – CAST PANEL*

Property	Value	
Tensile Strength (ASTM D638)	7.40 ksi	51 MPa
Tensile Modulus	0.26 Msi	1.8 GPa
Tensile Elongation at Break	6.00 %	6.00 %
Flexural Strength (ASTM D790)	12.7 ksi	87.5 MPa
Flexural Modulus	0.33 Msi	2.3 GPa
Compressive Strength (ASTM D695)	6.08 ksi	42 MPa
Compressive Modulus	0.14 Msi	0.968 GPa

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MECHANICAL PERFORMANCE – CAST PANEL*

Property	Value	
ILSS 0° Longitude/90° Transverse (ASTM D2344)	5.5/2.1 ksi	38/15 MPa
Flexural Strength 0° Longitude (ASTM D790)	130.2 ksi	897 MPa
Flexural Modulus 0° Longitude	6.1 Msi	42.1 GPa

* Bisphenol-A based epoxy resin (EEW=190)
Cure schedule cast and composite panel: 2 h @ 150°F/65°C
Composite panel by vacuum-assisted resin transfer molding
Fiber type: E-glass (275 g/m^2) Unidirectional
Fiber volume: 60 ± 3 %

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