

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.

ADVANTAGES

- Longer working time
- Low exotherm
- Low viscosity

APPLICATIONS

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

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 PROPERTIES

Appearance	Amber liquid
Color (Gardner; ASTM D1544)	max. 12
Viscosity¹ @ 77°F/25°C (mPa.s)	80-120
Specific Gravity @ 77°F/25°C (lb/gal)	7.68
Recommended Use Level² (PHR)	55
Equivalent Wt/{H}	104

TYPICAL HANDLING PROPERTIES²

Mixed Viscosity¹ @ 77°F/ 25°C (mPa.s)	850
Gel Time³ 150 g mix @ 77°F/ 25°C (min)	400-500
Time to 10,000 mPa.s¹ @ 77°F/ 25°C (min)	425

THERMAL PERFORMANCE²

Glass Transition Temperature⁴ (°F/°C)	142°F	61°C
Glass Transition Temperature⁵ (°F/°C)	127°F	53°C

MECHANICAL PERFORMANCE – CAST PANEL²

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)	12.7ksi	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

MECHANICAL PERFORMANCE – CAST PANEL²

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

- (1) Brookfield RVTD, spindle 27
- (2) 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/m²) Unidirectional
Fiber volume: 60 ± 3 %
- (3) Techne Gelation Timer, 150 g mix
- (4) DSC @ 10°C/min second heating scan
- (5) DMA @ 3°C/min- Three point bending (Tan Delta)

Epoxy Curing Agents and Modifiers

ANCAMIDE® 2781 Curing Agent

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