Product information

ANCAMINE® 2910

Curing Agent

DESCRIPTION

Ancamine 2910 curing agent is a versatile, low viscosity hardener designed to cure liquid epoxy resin at elevated temperature. The unique chemistry offers a longer working time than traditional curing agents. The combination of low viscosity and long pot life can enhance processing of complex woven fabrics by optimum fiber wetting, minimized material waste and improved overall throughput. It is recommended for use in cure-in-place-pipe, composites' processing, electronics and industrial electrical applications.

TYPICAL PROPERTIES

Property	Value	Unit	Method
Appearance	Amber Liquid		
Colour	≤ 8	Gardner	ASTM D 1544
Viscosity @ 77°F / 25°C	30-60	mPa.s	Brookfield RVTD, spindle 27
Specific Gravity @ 77°F / 25°C	7.76	lb/gal	
Equivalent Wt/{H}	38		
Recommended Use Level	20	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:

PERFORMANCE ADVANTAGES

- Longer working time
- Low exotherm
- Low viscosity

APPLICATIONS

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

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.

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HANDLING PRECAUTIONS

Refer to the Safety Data Sheet.

TYPICAL CURE SCHEDULE

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

TYPICAL HANDLING PROPERTIES *

Property	Value	Unit	Method
Mixed Viscosity @ 77°F/ 25°C	3,000	mPa.s	Brookfield RVTD, spindle 27
Gel Time 150 g mix @ 77°F/ 25°C	600-700	min	Techne Gelation Timer, 150 g mix
Time to 250K mPa.s @ 77°F/ 25°C	1,150	min	Bisphenol-A based epoxy resin (EEW=190) *

THERMAL PERFORMANCE *

Property			
Glass Transition Temperature	61°C	142°F	DSC @ 10°C/min second heating scan
Glass Transition Temperature	89°C	192°F	DMA @ 3°C/min – Three point bending (Tan Delta)

MECHANICAL PERFORMANCE - CAST PANELS *

Property			
Tensile Strength	71 MPa	10.32 ksi	ASTM D638
Tensile Modulus	2.8 GPa	0.43 Msi	
Elongation at Break	5.2%	5.2%	
Flexural Strength	126.7 MPa	18.4 ksi	ASTM D790
Flexural Modulus	3.3 GPa	0.48 ksi	
Compressive Strength	101 MPa	14.6 ksi	ASTM D695
Compressive Modulus	2.33 GPa	0.34 Msi	

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MECHANICAL PERFORMANCE - COMPOSITE PANEL *

Property			
ILSS 0° Longitude / 90° Transverse	47/12 MPa	6.8/1.7 ksi	ASTM D2344
Flexural Strength - 0° Longitude	1,114 MPa	161.5 ksi	ASTM D790
Flexural Modulus - 0° Longitude	43.4 GPa	6.3 Msi	

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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