

Product information

ANCAMINE[®] 2901

Curing Agent

DESCRIPTION

Ancamine 2901 curing agent is designed to cure liquid epoxy resins at ambient as well as elevated temperatures. Ancamine 2901 curing agent was developed to provide faster reactivity, good chemical resistance, high stiffness, and good thermal properties. It can be used as a co-curing agent to accelerate reactivity of other amines.

TYPICAL PROPERTIES

Property	Value	Unit	Method
Appearance	Amber		
Colour	4-8	Gardner	
Viscosity @ 77°F / 25°C	85–120	cPs	
Specific Gravity @ 77°F / 25°C	0.96		
Equivalent Wt{H}	38		
Recommended Use Level	20	phr	

ADVANTAGES

- Increases through put
- Excellent physical properties
- Excellent hydrolysis resistance

RECOMMENDED PROCESSING

- Resin Transfer Molding
- Fiber Impregnation in a Controlled Environment

APPLICATIONS

- Laminates and Composites

SHELF LIFE

At least 36 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 Ancamine 2901 curing agent.

TYPICAL CURE SCHEDULE

2 hours at 176°F, then 3 hours at 250°F
2 hours at 80°C, then 3 hours at 121°C
24 hours at RT, then 3 hours at 121°C

TYPICAL HANDLING PROPERTIES *

Property	Value	Unit	Method
Mixed Viscosity @ 104°F/ 40°C	800–850	cPs	RV Spindle #27
Gel Time (150g mix @ 77°F/ 25°C)	40–60	min	
Time to 10,000 cPs @ 104°F/ 40°C	21	min	RV Spindle #27

THERMAL PERFORMANCE *

Property			
Glass Transition Temperature	135°C	275°F	
(DSC second scan)			

MECHANICAL PERFORMANCE - CAST PANEL *

Property			
Tensile Strength	73 MPa	10.6 ksi	ASTM D638
Tensile Modulus	1.9 GPa	0.27 Msi	
Tensile Elongation at Break	5.4%	5.4%	
Flexural Strength	129 MPa	18 ksi	ASTM D790
Flexural Modulus	2.2 GPa	0.32 Msi	
Compressive Strength	105 MPa	15.3 ksi	ASTM D695
Compressive Modulus	2.0 GPa	0.30 Msi	

MECHANICAL PERFORMANCE - COMPOSITE PANEL *

Property			
ILSS 0° Longitude / 90° Transverse	71/ 22 MPa	18 ksi	ASTM D2344
Flexural Strength - 0° Longitude	1125 MPa	162 ksi	ASTM D790
Flexural Modulus - 0° Longitude	49 GPa	7.0 Msi	
Compressive Strength (tabs) - 0° Longitude	315 MPa	46 ksi	
Compressive Modulus (w/o tabs) - 0° Longitude	14.5 GPa	2.1 Msi	

Composite Panel Fabrication:

Method: Vacuum Assisted Resin Transfer Molding

Fiber Type: E-glass (275g / m²) Unidirectional

Fiber Volume: 60 ± 3%

Cure Schedule: 2 hrs @ 80°C + 3 hrs @ 121°C

* Ancamine 2901 curing agent formulated with standard Bisphenol-A based (DGEBA, EEW=190) epoxy resin

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EVONIK OPERATIONS GMBH

Business Line Crosslinkers
Paul-Baumann-Str. 1
45764 Marl
Germany

www.evonik.com/crosslinkers

Product Information: APCSE@evonik.com

Sample Request: APCSE@evonik.com

EVONIK CORPORATION

Business Line Crosslinkers
7001 Hamilton Boulevard
Trexlerstown, PA 18087
USA

CrosslinkersProinfo@evonik.com

Crosslinkers-Samples@evonik.com

EVONIK SPECIALTY CHEMICALS (SHANGHAI) CO., LTD.

Business Line Crosslinkers
55, Chungong Road
Xinzhuang Industry Park
Shanghai, 201108
China

CL-Asiainfo@evonik.com

CL-Asiainfo@evonik.com

