



MERICAN 3311RE A/B is a two-component, high-performance epoxy resin system composed of epoxy resin and amine curing agent, which can be degradable at room temperature and pressure within 2-3 days. It is suitable for infusion process, especially for the manufacture of large wind turbine blades and composite products.

FEATURES

- ◆ Low viscosity and fast defoaming
- ◆ Excellent heat resistance
- ◆ Good wet-out to fiber
- ◆ Long pot life and low exothermic peak

APPLICATIONS

- ◆ Suitable for automotive, Pump casings, carbon fiber tubes, wind power blades and other products
- ◆ Suitable for the manufacture of composite materials that require low viscosity and long pot life (> 5 h)

TYPICAL PRODUCT VALUES ⁽¹⁾

Property	MERICAN 3311RE A	MERICAN 3311RE B
Appearance	Light yellow transparent liquid	Colorless transparent liquid
Viscosity, cps (25 °C)	1200 - 1700	5 - 40
Density, g/cm ³ (25 °C)	1.1 - 1.2	0.9 - 1.0
Amine Value, mg KOH/g	-	500 - 550
Epoxy Equivalent, g/mol	165 - 185	-

PROCESS PARAMETERS ⁽¹⁾

It must be configured accordance with the instructions strictly, reduce or increase the addition of curing agent will not slow down or speed up its reaction. The resin and hardener must be completely mixed.

Property	MERICAN 3311RE AB
Recommended Mass Ratio	100: 30±2
Recommended Volume Ratio	100: 36±2
Mixed Viscosity, cps (25 °C)	180 - 300
Mixed Density, g/cm ³	1.0 - 1.2
Solid Density, g/cm ³	1.0 - 1.2
Gel Time ⁽²⁾ , min(80 °C)	25 - 35

Property	MERICAN 3311RE AB	TM
HDT (1.8 MPa), °C	75 - 85	ASTM D648

MERICAN® 3311RE A/B

Tensile Strength, MPa	65 - 85	ASTM D638
Tensile Modulus, GPa	2.8 - 3.2	ASTM D638
Elongation at Break, %	6.0 - 10.0	ASTM D638
Flexural Strength, MPa	110 - 130	ASTM D790
Flexural Modulus, GPa	2.8 - 3.3	ASTM D790
Curing Conditions	80 °C / 8 h	

(1) Typical values only, should not be considered as product specifications.

(2) This value is for a 0.5 ml mixed resin sample, and the gel time will vary depending on the sample size and test environment.

TESTING CONDITIONS

Temperature: 25 °C. Relative moisture: 50 ± 5 %.

PACKING AND STORAGE

Net weight 20 Kg / iron drum, 200 Kg / iron drum, 1000 Kg / IBC tank.

The storage container should be well sealed, and the environment should be cool, dry and ventilated due to the hygroscopicity of epoxy resin. The initiator and accelerator must avoid to direct sunlight, the two should be strictly separated and not be stored in the same warehouse or the same carriage for transportation.

MATERIAL SAFETY

A Material Safety Data Sheet of this product is available on request.

TEST METHODS

Test methods (TM) referred to in the table(s) are available on request.

SINO POLYMER is a leading manufacturer of epoxy vinyl ester resin, unsaturated polyester, epoxy resin, polysulphone, coating and adhesives since year 1958, with its headquarter and plant located in Shanghai Chemical Industry Park, P.R. China. The company's Total Quality Management Gene's guaranty sustainable product & service quality, lead time and competitiveness, as the Safety & Security Management, Improvement Process, R&D and International developments make Sino Polymer a sustainable partner on long term.

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