# SINO POLYMER 华昌聚合物

MERICAN 3316 A/B is a two-component, flame retardant and high-performance epoxy system composed of epoxy resin and amine curing agent. It has the advantages of fast defoaming, fast curing speed at medium temperature, high mechanical properties, excellent heat resistance, and good wet-out to fibers.

## FEATURES

- Flammability rating is UL94-V0
- Fast curing speed at medium temperature

## **APPLICATIONS**

- Suitable for HP-RTM and WCM processes
- Suitable for upper cover, lower plate, bracket of automobile battery box

## **TYPICAL PRODUCT VALUES**

Property <sup>(1)</sup>	MERICAN 3316 A	MERICAN 3316 B
Appearance	Black viscous liquid	Light yellow transparent liquid
Viscosity, cps (50 °C)	700 - 1000	-
Viscosity, cps (25 °C)	-	10 - 30
Density, g/cm <sup>3</sup> (25 °C)	1.3 - 1.4	0.9 - 1.0
Amine Value, mg KOH/g	-	730 - 800
Epoxy Equivalent, g/mol	200 - 250	-

# PROCESS PARAMETERS

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 <sup>(1)</sup>	MERICAN 3316 AB
Recommended Mass Ratio	100: 20 ± 2
Mixed Viscosity, cps (50 °C)	100 - 300
Pot Life <sup>(2)</sup> , min (23 °C)	30 - 45
Gel Time <sup>(3)</sup> , sec (120 °C)	45 - 55

Property <sup>(1)</sup>	MERICAN 3316 AB	ТМ
Tg, ℃	110 - 120	ASTM D3418
Tensile Strength, MPa	60 - 80	ASTM D638
Tensile Modulus, GPa	3.0 - 3.3	ASTM D638

# MERICAN® 3316 A/B

Elongation at Break, %	2.0 - 3.0	ASTM D638
Flexural Strength, MPa	120 - 130	ASTM D790
Flexural Modulus, GPa	3.3 - 3.5	ASTM D790
Curing Conditions	130 °C / 10 min	

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

(2) TECAM 100 g, 65 % RH.

(3) Hot plate.

## **TESTING CONDITIONS**

Temperature: 25 °C. Relative moisture: 50  $\pm$  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 shelf life is 12 months at room temperature. 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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