



MERICAN® 3221 A/B

MERICAN 3221 A/B is a two-component high-performance epoxy resin system composed of epoxy resin and anhydride curing agent, which has the benefits of excellent heat and chemical resistance, low viscosity, good adhesion to fiber.

FEATURES

- ◆ Good wet-out to fiber
- ◆ Excellent process, thermal and mechanical properties
- ◆ Long pot life and shelf life

APPLICATIONS

Suitable for the manufacture of structural composites in the oil, gas and chemical industries, such as:

- ◆ Pressure vessels, hydrogen cylinders, liquefied gas cylinders, etc.
- ◆ Filament winding products, pipes, storage tanks, etc.
- ◆ Laminates, equipment housings, etc.

TYPICAL PRODUCT VALUES

Property ⁽¹⁾	MERICAN 3221 A	MERICAN 3221 B
Appearance	Colorless transparent liquid	Yellow transparent liquid
Viscosity, cps (25 °C)	1100 - 1400	80 - 120
Density, g/cm ³ (25 °C)	1.1 - 1.2	1.1 - 1.2
Acid Value, mg KOH/g	-	580 - 640
Epoxy Equivalent, g/mol	165 - 185	-
Shelf Life (25 °C)	12 months	12 months

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 ⁽¹⁾	MERICAN 3221 A/B
Recommended Mass Ratio	100: 100
Mixed Viscosity, cps (25 °C)	250 - 350
Mixed Density, g/cm ³ (25 °C)	1.1 - 1.2
Gel Time ⁽²⁾ , sec	650 - 900@120 °C

Property ⁽¹⁾	MERICAN 3221 A/B	TM
Curing Conditions	90 °C / 2 h + 110 °C / 3 h	
Tg, °C	100 - 120	ASTM D3418

Tensile Strength, MPa	70 - 80	ASTM D638
Tensile Modulus, GPa	2.9 - 3.2	ASTM D638
Elongation at Break, %	5.0 - 8.0	ASTM D638
Flexural Strength, MPa	120 - 130	ASTM D790
Flexural Modulus, GPa	2.9 - 3.2	ASTM D790

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

(2) Hot plate, 0.2 g sample.

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.

SINO POLYMER CO., LTD.

NO. 130, Muhua Road, Shanghai Chemical Industry Park, 201507

Shanghai, China

Phone: +86 21 64252619

Email: huachang@hchp.com.cn