# III FE SINO POLYMER 华昌聚合物

MERICAN 3296 A/BS/BW is an epoxy resin system consisting of an epoxy resin 3296 A and modified amine curing agents 3296 BS and 3296 BW, which can adapt to different ambient temperature requirements, suitable for cast and hand lay-up processes.

#### FEATURES

- Low mixing viscosity and fast defoaming
- Transparent liquid with high gloss performance

#### **APPLICATIONS**

 Suitable for the electronic potting, stone surface repair and civil engineering construction crack repair, etc.

# TYPICAL PRODUCT VALUES

Property <sup>(1)</sup>	MERICAN 3296 A	MERICAN 3296 BS	MERICAN 3296 BW-1	MERICAN 3296 BW-2
Appearance	Colorless transparent liquid	Colorless transparent liquid	Colorless transparent liquid	Colorless transparent liquid
Viscosity, cps (25 °C)	2000 - 3300	15 - 40	40 - 60	90 - 140
Density, g/cm3 (25 °C)	1.1 - 1.2	0.9 - 1.1	0.9 - 1.1	0.9 - 1.1
Amine Value, mg KOH/g	-	440 - 470	430 - 470	480 - 530
Epoxy Equivalent, g/mol	170 - 190	-	-	-
Shelf Life (25 °C)	12 months	12 months	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 <sup>(1)</sup>	MERICAN 3296 A/BS	MERICAN 3296 A/BW-1	MERICAN 3296 A/BW-2
Recommended Mass Ratio	100: 34 ± 2	100: 34 ± 2	100: 34 ± 2
Mixed Viscosity, cps (25 °C)	350 - 650	400 - 750	900 - 1200
Mixed Density, g/cm3 (25 °C)	1.1 - 1.2	1.1 - 1.2	1.1 - 1.2
Pot Life, min	30 - 40@30°C	30 - 40@20°C	50 - 60@10°C
Exothermic Peak Time, min	40 - 60@30°C	45 - 65@20°C	60 - 80@10°C
Gel Time <sup>(2)</sup> , min	18 - 20@60°C	10 - 12@60°C	8 - 10@60°C
	7 - 8@80°C	4 - 6@80°C	3 - 5@80°C
	4 - 5@100°C	1.5 – 2.5@100°C	1 - 2@100°C

Property <sup>(1)</sup>	MERICAN 3296 A/BS	MERICAN 3296 A/BW-1	MERICAN 3296 A/BW-2	тм
Curing Conditions	60°C /1h+80°C/2h	RT 24h+80°C /5h	RT 24h+80°C /5h	-

# MERICAN® 3296A/BS/BW

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Tg, °C	80 - 90	90 - 100	80 - 90	ASTM D3418
HDT (1.8 MPa), °C	65 - 75	75 - 85	65 - 75	ASTM D648
Hardness	80 - 90D	80 - 90D	80 - 90D	ISO 868
Tensile Strength, MPa	60 - 70	-	-	ASTM D638
Tensile Modulus, GPa	2.9 - 3.2	-	-	ASTM D638
Elongation at Break, %	7.0 - 10.0	-	-	ASTM D638
Flexural Strength, MPa	110 - 120	125 - 135	115 - 125	ASTM D790
Flexural Modulus, GPa	3.0 - 3.3	3.0 - 3.2	3.0 - 3.2	ASTM D790

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

(2) Hot plate.

## **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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