



MFE® 791

MFE 791 is a polyurethane-modified epoxy vinyl ester resin that maintains the excellent physical properties of epoxy vinyl ester resin while having high toughness and elongation at break.

FEATURES

- ◆ Better toughness and elongation
- ◆ Outstanding adhesive strength
- ◆ Less cracking and better impact strength
- ◆ Superior retention under dynamic fatigue conditions
- ◆ Outstanding chemical resistance

APPLICATIONS

- ◆ Suitable for the process of hand lay-up, spray-up, pultrusion, infusion (RTM) and other industrial FRP applications

LIQUID RESIN PROPERTIES ⁽¹⁾

Property	Value	TM
Appearance	Light turbid liquid	Visual
Viscosity, cps (25 °C)	300 - 450	ISO 2555
Density, g/cm ³	1.02	ISO 1675
Solid Content, %	40.0 ± 3.0	ISO 3233
Gel time ⁽²⁾ , min (25°C)	25.0 ± 5.0	ISO 2535
Shelf Life ⁽³⁾ , Dark, (25 °C)	4 months	

PROPERTIES OF PURE RESIN CASTING ⁽⁴⁾

Property	Value	TM
Tensile Strength, MPa	63 - 80	ASTM D638
Tensile Modulus, GPa	3.0 - 3.6	ASTM D638
Tensile Elongation, %	10.0 - 12.0	ASTM D638
Flexural Strength, MPa	100 - 115	ASTM D790
Flexural Modulus, GPa	3.1 - 3.3	ASTM D790
Barcol hardness	30 - 36	ASTM D2583
HDT (1.8 MPa), °C	75 - 85	ASTM D648

- (1) Typical property values only, not to be construed as specifications.
- (2) 100 g resin with 1.2g MEKP (9.8% active oxygen) and 2.5g CoNap (1% Cobalt), 0.05g DMA (100% Dimethylaniline).
- (3) Unopened drum with no additives, promoters, accelerators, etc. added. Shelf life specified from date of manufacture.
- (4) Cure schedule: 24 hours at room temperature; 2 hours at 99 °C.

TESTING CONDITIONS

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

PACKING

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

STORAGE

The storage environment should be dry and ventilated. The storage period below 25 °C is 6 months, Improper storage or transportation conditions will cause a shortening of the resin's storage period. The products shall comply with the provisions on the storage, transportation, loading and unloading of hazardous chemicals in the Regulations on the Safety Management of Hazardous Chemicals of the State Council. It is recommended to transport resin by refrigerated truck when the temperature exceeds 35 °C, and transport it at night to avoid direct sunlight.

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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