

MFE 711 Vinyl Ester Resin

MFE 711, formerly known as MFE-11, is a premium standard Bisphenol-A type epoxy vinyl ester resin. It provides resistance to a wide range of acids, alkalis, bleaches and solvents used in many chemical processing industry applications.

Benefits & Properties

- Easier workability, good air drying.
- Shorter gel-to-cure interval, reduced stress cracking,
- The resin's improved reactivity properties often permit an increase in the lay-up thickness per session.
- Higher elongation provides FRP equipment with increased toughness
- Lighter color makes defects easier to see and correct while the resin is still workable.
- Longer shelf life provides additional flexibility to fabricators in storage and handling.

Applications and Fabrication Techniques

- FRP storage tanks, vessels, ducts, and on-site maintenance projects, particularly in chemical processing and pulp and paper operations.
- The resin is designed for ease of fabrication using hand lay-up, spray-up, filament winding, compression molding and resin transfer molding techniques, pultrusion and molded grating applications.
- When properly formulated and cured, complies with FDA regulation 21 CFR 177.2420, covering materials intended for repeated use in contact with food.
- Lloyds' approved in the name of MFE-11

Typical Liquid Resin Properties

Property ⁽¹⁾	Value
Appearance	Light yellow
Viscosity cPs 25°C Brookfield #63@60rpm	250-450
Styrene Content	42-48%
Shelf Life ⁽²⁾ , Dark, 25°C	10 months

(1) Typical property values only, not to be construed as specifications

(2) Unopened drum with no additives, promoters, accelerators, etc. added. Shelf life specified from date of manufacture.

Typical Properties ⁽¹⁾ Resin Clear Casting ⁽³⁾

Property	Value	Test Method
Tensile Strength / MPa	80-95	
Tensile Modulus / GPa	3.2-3.7	ASTM D-638
Elongation at break / %	5.0-6.0	
Flexural Strength / MPa	120-150	ASTM D-790
Flexural Modulus / GPa	3.3-3.8	
HDT ⁽⁴⁾ °C	100-106	ASTM D-648 Method A
Barcol Hardness	38-42	Barcol 934-1

(3) Cure schedule: 24 hours at room temperature; 2 hours at 120°C

(4) Maximum stress: 1.8 MPa

Safety and Handling Consideration

This resin contains ingredients which could be harmful if mishandled. Contact with skin and eyes should be avoided and necessary protective equipment and clothing should be worn.

The specification is 2011 edition and may change with the technological improvement. Sino Polymer Co., Ltd. maintains Material Safety Data Sheets on all of its products. Material Safety Data Sheets contain health and safety information for your development of appropriate product handling procedures to protect your employees and customers.

Our Material Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using our products in your facilities.

Recommended Storage:

Drums - Store at temperatures below 25°C. Storage life decreases with increasing storage temperature. Avoid exposure to heat sources such as direct sunlight or steam pipes. To avoid contamination of product with water, do not store outdoors. Keep sealed to prevent moisture pick-up and monomer loss. Rotate stock.

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