



Furalac™ Membrane

SELECTION & SPECIFICATION DATA

Type	Furan resin laminate membrane
Description	Furalac Membrane is a nominal 1/8 to 3/16-inch (3 to 4.5 mm) thick multilayer reinforced laminate membrane applied over a flexible basecoat to protect concrete and steel substrates under acid-resistant brick or polymer concrete.
Uses	Membrane under acid-resistant brick or polymer concrete in <ul style="list-style-type: none">• Solvent secondary containment• Chemical transfer stations• Tall oil reactors• Black liquor tanks• Trenches, sumps and pits• Spent acid storage tanks
Features	<ul style="list-style-type: none">• Broad chemical resistance including organic solvents• Fast cure, quick turnaround• Low permeability• Multiple layers ensure pinhole free lining• Bridges hairline cracks in concrete• Shelf stable
Limitations	<ul style="list-style-type: none">• For hydrofluoric acid, fluoride salt, or hot caustic soda service, consult Armor for alternative, glass-free reinforcing cloths.• Not for use beyond its chemical resistance capabilities. Consult Armor with specific questions.

INSTALLATION GUIDANCE

Reference Specifications	CES-295 Furalac Membrane installation specification
Installation Conditions	Materials and substrate should be acclimated to the air temperature prior to installation, and the air temperature should be between 50°F (10°C) and 90°F (32°C) during installation and cure.
Mixing/Use	<p>Prepare and prime concrete substrate with Penntrowel™ Epoxy Primer, in accordance with product data sheet CE-139, or Novocoat™ SC1100 Primer/Sealer. On steel use Pennguard™ HP Epoxy Primer. Allow to cure tack-free.</p> <p>Apply 60 mils (1.5 mm) Tufchem™ II Membrane to primed substrate.. While wet, firmly embed 1.5-oz chopped strand mat , overlapping edges 2 inches (50 mm). Use a serrated roller to smooth mat and remove trapped air then let cure firm.</p> <p>Catalyze Furalac Membrane Resin to saturate mat, then immediately roll onto mat, smoothing mat with roller as work proceeds.</p> <p>Mix the Furalac Resin and Hardener at a rate of ½ cup of hardener to 1 gallon of resin. A 1 gallon can of hardener is sufficient to catalyze 32 gallons (6 x 5 gallon) of resin.</p> <p>Repeat mat and saturant application with a second layer of 1.5-oz Chopped Strand Mat and a layer of 1-oz Chopped Strand Mat. After 3-ply laminate dries hard, roll on a thin layer (gel coat) of catalyzed Furalac Membrane Resin.</p>
Work Life	10-20 minutes for Furalac Membrane Resin
Cleanup	Mineral spirits for Furalac Membrane Resin

CURE TIME

Furalac Membrane Resin Saturant

Temperature	Initial Set	Full Cure
70°F (21°C)	30 minutes	2 hours

SAFETY

Safety	Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and safety data sheets before using.
Ventilation	Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.



PACKAGING, ESTIMATING & HANDLING

Refer to Penntrowel™ Epoxy Primer, Novocoat™ SC1100 Primer/Sealer, Pennguard™ HP Epoxy Primer, and Tufchem™ II Membrane product data sheets for packaging, estimating, and handling information.

Product	Code	Packaging
Furalac Membrane Resin	24343	5-gallon (50 lb) pail
	24344	55-gallon (500 lb) drum
Furalac Membrane Hardener	24345	4 x 1-gallon can case
1.0-oz Chopped Strand Mat	19639	50-inch x 125-yard (1500 ft²) roll
1.5-oz Chopped Strand Mat	19640	50-inch x 88-yard (1056 ft²) roll

Theoretical Coverage

Catalyzed Furalac Membrane Resin: 11 ft²/gal to saturate 2 layers of 1.5-oz Chopped Strand Mat and 1 layer of 1-oz Chopped Strand Mat

1.5 oz Chopped Strand Mat: 1,056 ft² per layer (2)

1 oz Chopped Strand Mat: 1,500 ft²

Storage & Shelf Life

Maintain products in original packaging and sealed until ready for use. Estimated shelf life of components is 18-24 months when stored in a dry area at 70°F (21°C). Actual shelf life may vary with storage conditions.

If there is any question with respect to the quality of the components check reactivity prior to use. For assistance consult with Armor.

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Color	Black
Shore D hardness	>80
Coefficient of thermal expansion	$1.1 \times 10^{-5}/\text{in}/\text{in}/^{\circ}\text{F}$ ($2.0 \times 10^{-5}/\text{in}/\text{in}/^{\circ}\text{C}$)
Flexural strength	3200 psi (22 MPa)
Service temperature	250°F (120°C)

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TERMS AND CONDITIONS OF SALE

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