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

- Solvent secondary containment
- Chemical transfer stations
- Tall oil reactors
- Black liquor tanks
- Trenches, sumps and pits
- Spent acid storage tanks

Features

- 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

- For hydrofluoric acid, fluoride salt, or hot caustic soda service, consult ErgonArmor for alternative, glass-free reinforcing cloths.
- Not for use beyond its chemical resistance capabilities. Consult ErgonArmor 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

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.

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.

Catalyze Furalac Membrane Resin to saturate mat, then immediately roll onto mat, smoothing mat with roller as work proceeds.

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.

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.

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.

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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 24344	5-gallon (50 lb) pail 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 ft^2) roll
1.5-oz Chopped Strand Mat	19640	50-inch x 88-yard (1056 ft^2) roll

Theoretical Coverage

Catalyzed Furalac Membrane Resin: 11 ft^2/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 ft^2 per layer (2)

1 oz Chopped Strand Mat: 1,500 ft^2

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 ErgonArmor.

TYPICAL PHYSICAL PROPERTIES

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

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