1151 Transport Drive, Valparaiso, IN 46383
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elitecrete.com

TD.630 – TECHNICAL DATA: E100-FS9™ Crack Bridging Membrane
Revised: 2/5/2024 Version: 1.1

Product Description:

E100-FS9™ is a 100% solids, flexible epoxy/urethane hybrid membrane formulated to provide a tough seamless system with outstanding crack bridging capabilities even at temperatures as low as 0°F. Self-priming and can be used under many ECS recommended resinous flooring systems.

USES:

Parking structures
Mechanical equipment rooms
Balconies
Showers or other areas requiring waterproofing
Wet processing areas

FEATURES:

Low odor
Remains flexible down to 0°F
Water based primer required
Seamless protection from moisture intrusion

Physical Properties
Crack Bridging/Hybrid membrane

Property	Test Standard	Result
Mix Ratio:		2 to1 (2 parts A to 1 part B)
Gel Time:	ASTM C-881	20-30 minutes
Color (mixed)		Opaque yellow
Consistency		Flowable
Adhesion to Prepared concrete	ASTM D 903 (Peel)	30 Pli w/0.3kg/mm width
Adhesion to plywood	ASTM D 903 (Peel)	35-40 Pli w/0.40-0.55 kg.mm w
Adhesion of Epoxy to Membrane	Elcometer	400+ Psi
Water Vapor Transmission	ASYM D 1653	0.35 perms
	E-96 meth0d 2	0.88 metric perms
Tensile Strength	ASTM D 412	1500 psi
Tensile Elongation 70°f (21°C)	ASTM D 412	300%
Tear Strength	ASTM D 1004	350 pli
Viscosity Mixed @70°F (20°C)	ASTM D 2196	2,000 cps
Cure Time @ 73°F		8 – 10 hours
VOC Content		1-2 g/L less water
Protection from salt and fresh water in direct immersion w/top coat		48 hours @ 73°F

Mix Ratio

2 parts A to 1 Part B by volume

Cure Schedule: 73°F (23°C)

Pot Life: 20-30 minutes
Recoat: 8-10 hours
Foot traffic: 24 hours
Full cure 48 hours

Limitations:

All substrates must be free of all contaminates including but not limited to grease oils, sealers, unsound concrete and Laitance. Substrate and air temperature must be Above 50°F-90°F (10-32°C)

DO NOT FREEZE

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Preparation & Application:
Protect all surfaces to be coated, with a weather proof sheeting to keep off rain, snow and strong wind during application and cure.

All substrates must be sound and free of contaminates and laitance. Concrete substrates shall be shot blasted to remove all sealers, hardeners and laitance. Spalls and cracks shall be repaired as detailed in the following paragraphs.

Spalls:
Sound the concrete substrate to identify all unsound loose concrete areas and mark for repair. Remove all unsound concrete with appropriate mechanical tools and equipment
Fill all spalls with applicable repair mortar. (allow to cure 24 hours @ 73°F before applying top coats.

After all spalls and depressions are repaired SHOTBLAST THE ENTIRE SUBSTRATE TO REMOVE ALL LAITANCE, SEALERS, AND HARDENRS ON SUBSTRATE. Perform detailing of all joints and cracks in the concrete as noted below.

Joints:
If the concrete substrate is old and expansion joint nosings have broken down, consult with an structural engineer or plant engineer to determine if the width of the joints can be reduced to less than the diameter of the smallest tires travelling over the joint.

Filling Joints:
All **Isolation, Control** and **Expansion Joints**: 1 inch width or less can be filled with applicable joint sealant. First apply an appropriate type backer rod (non-gassing expanding) the depth is important whatever the width of the joint place the backer rod ½ the depth. Tape off the sides of the joints and fill with the appropriate sealant and tool to a concave finish and immediately remove tape.

Construction joints: These joints can be filled up with epoxy injection resin (making sure the bottom of the joint is sealed to stop resin from escaping.

Cracks: Under 1/16” inch wide

Shotblast over cracks. Apply E100-VB5™ primer over crack and 4” wide spanning crack and allow to cure’
Apply 15 mill coat of crack bridging hybrid membrane in a 4-inch strip and embed scrim cloth in wet membrane and allow to cure,
Apply stretch coat of crack bridging membrane over scrim cloth to totally embed scrim cloth and allow to cure.

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Cracks over 1/16” wide

Shotblast over cracks. Route out with a 1/4" wide x 1/2” deep using diamond saw blade
Apply bond breaker tape or non-gassing backer rod in crack ¼” deep in crack and apply applicable joint sealant.

Apply crack bridging hybrid membrane @ 15 mills thickness 4” wide centered over crack and immediately apply scrim cloth in the wet membrane and allow to cure.
After cure, apply 10 mills of crack bridging membrane over cloth and allow to cure

Traffic base coats
For Parking Garages:
NOTE: For decks exposed to sunlight a light color is highly recommended to eliminate excessive heat buildup on the deck causing un-needed stress.

Light duty to medium duty traffic surfaces: parking stalls, level traffic aisles,
Apply E100-PT4™ or E100-VR4™ @ 85 sq feet per gallon, back roll SINGLE BASE COAT and broadcast 20-30 mesh DRY silica sand to excess or dry trap rock sand to excess and Allow to cure. Sweep up excess and apply a top coat of E100-PT4™ and back roll. (an optional coat of AUS-V™ urethane may be applied over this if desired.

On all exposed decks to sunlight it is required to apply a pigmented AUS-V™ TOP COAT TO PROTECT FROM UV EXPOSURE LIGHT GRAY OR TAN IS RECOMMENDED TO KEEP HEAT BUILD UP TO A MINIMUM.

Heavy Duty: For all ramps and turns
A triple broadcast of E-100 PT4 @ 95 sq ft per gallon per coat is required and backrolled. Immediately broadcast 16-20 mesh dry silica or trap rock sand to excess.
After cure, sweep up and vacuum all excess sand and apply a second base coat of E100-PT4™ Top Coat at 95 sq ft per gallon, backroll and broadcast sand to excess. After cure, sweep up and vacuum excess sand and apply a third broadcast following the same procedure as above. After cure, sweep up excess sand and vacuum surface until free of loose sand. Apply E100- PT4™ as a top coat by applying with a squeegee, pulling tightly over sanded surface and backroll to pick up any excess top coat.

Allow to cure 24-48 hours before opening to traffic. If a faster return to service is required use fast set hardener cure time is 6-8 hours depending upon temperature.