Dr. Fixit TankPro E

CHEMICAL RESISTANT COATING FOR WATERPROOFING AND PROTECTION OF CONCRETE STRUCTURES

Description

Dr. Fixit TankPro E is a two-component, solvent-free advance polymer coating. It produces a strong liquid applied membrane of sufficient elasticity with outstanding adhesion to various types of surfaces. It is specially designed based on pure hydrophobic polymer resin which results in excellent abrasion resistance and protect the concrete against aggressive chemicals.

Areas of Application

Waterproofing and protection of:

- Sewerage tanks, aeration tanks, sedimentation tanks etc.
- Wastewater treatment plants.

Features and Benefits

- Easy to apply, can be applied using Trowel.
- Excellent adhesion to a variety of substrates and building materials.
- Being solvent-less, it can easily be applied in confined spaces.
- High chemical & abrasive resistance as per ASTM D543 & ASTM D4060.

Method of Application

1 GENERAL SURFACE PREPARATION:

- Surface needs to be made clean, dry and sound, free of any contamination by wire brushing, which may affect the adhesion of the membrane to the substrate. Substrate concrete compressive strength should be cured for 28 days and achieve minimum 20 MPa compressive strength. Wash the concrete substrate with water pressure jet to remove all loose particles and dust.
- Ensure the substrate has properly cured and the concrete is profile free, no ridges or troughs. All contaminants should be removed by mechanical vacuum assisted preparation equipment such as scrabbling/shot blasting/ diamond grinding to achieve a light abrasive blast to achieve preferred surface profile of CSP 4 or CSP 5.
- If concrete surface found to be defective with pinholes/bug roles/honeycombs etc., it must be filled/ repaired using scratch coat prepare by mixing Dr. Fixit Tank Prime and Dr. Fixit Superseal P100 aggregates in 1:1 ratio. Apply the scratch coat by using suitable spatula/squeeze to get level surface for the upcoming primer.

2 REPAIR OF CRACKS AND CONSTRUCTION JOINTS:

- Existing surface cracks which are more than 1 mm and construction joints should be cut open in square or V -groove manner up to 10 mm width by using mechanical cutter.
- Clean the groove with air blower to remove dust, dirt etc. primmed the groove with Dr. Fixit Pidiprime A and allow it to dry for 2-3 hours.
- Slide the Feviseal PU/Hybrid Sealant into the applicator gun; extrude the sealant into the cracks ensuring that no air is trapped inside. The hybrid sealant does not require any primer.
- The treated cracks require minimum 6 hours to set and allowed to cure completely for a day. (Self-curing according to the room temperature). The curing rate will depend on the depth of the selant applied.

3 CORNER TREATMENT – WALL TO FLOOR AND WALL TO WALL JOINT:

- Moisten the surface with water & apply a bonding coat of Dr. Fixit Pidicrete URP and cement (1:1) by volume on cleaned RCC surface. Place angle fillet / coving by using Polymer modified mortar prepare with 1 kg Dr. Fixit Pidicrete URP, 5 kg fresh cement, and 15 kg graded quartz sand. (i.e., in the ratio of 1:5:15) on all along the joint RCC surface (slab and wall junction) and smooth finish.
- Alternatively, V" grooves shall be cut along the wall & slab joints or construction joints for 10 x 10 mm using a hand cutter.

- After cleaning the groove thoroughly, apply one coat of Dr. Fixit Pidiprime A primer and fill the gap with Feviseal PU/Hybrid sealant is applied (Air curing for 24 to 72 hours according to the room temperature) in the groove. For Hybrid sealant, primer will not be required.
- After curing of sealant, apply one coat of Tank Prime primer in a width of 120mm, let it dry and fix the Dr. Fixit Corner Joint tape along the wall-slab joints using Dr. Fixit TankPro E.

4 PRIMING:

- The entire internal floor & wall concrete surfaces shall be sundried / thumb dry (moisture content <5%), all loose scaling, dust and other deposits shall be blown off with a compressor.
- Dr. Fixit Tank Prime shall be mixed well and applied using roller/brush over the prepared RCC surface in one coat with coverage of 200 gm/m^2.
- Self-curing time of 3-12 hours depends upon the climatic conditions.

5 APPLICATION:

- While mixing, both the components A & B shall be poured into a fresh container and mixed well with slow speed stirrer. Use slow speed (100-300 RPM) paddle mixer for mixing the components.
- Both the components of Dr. Fixit TankPro E should be stirred well before using. Mix the individual material of Part A and Part B. Pour part A into part B and mix properly for 2-3 minutes to get a homogenous solution. Transfer the mix into flat paint tray to let the entrapped air out. Apply the mixed solution on the primed surface by using roller/trowel to achieve the desired thickness.
- Apply Dr. Fixit TankPro E when the primer is tack free or before 24 hours from application of primer. In case if it exceeds 24 hours, then a thin coat of primer is recommended.
- Apply with roller in two coats with consumption of 1.4 kg/m2. Since the coating is thixotropic in nature, any pinholes should be sealed in the first coat. Hence, the first coat coverage is suggested to be maintained at 0.7Kg/m2 and remaining 0.7Kg/m2 in the second coat.
- Apply second coat of Dr. Fixit TankPro E in perpendicular direction to first coat between 6 to 24 hr of completion of first coat. In case of it exceed 24 hrs it is suggested to apply fresh coat of primer.
- Any pinholes visible in the 1st coat shall be touched up appropriately with Feviseal PU or Hybrid sealant/ Scratch coat (as suggested above).
- Let the coating cure for 3-5 days for full cure.

Note:

- For best results, the temperature during application and cure should be between 10º C and 35º C. Low temperatures retard cure while high temperature accelerates curing.
- Pot life will shorten during extreme summer and application needs to be rescheduled in the cooler evenings.
- Use of primer is mandatory to seal the pores and avoid pinholes in the coating surface.
- Any pinholes visible after the 1st coat shall be touch up appropriately with Feviseal PU or Hybrid sealant/Epoxy putty.

Precautions & Limitations

- Although it does not contain volatile substances, it is highly recommended that closed spaces be well ventilated.
- Careful supervision during application is needed, particularly in ensuring proper consumption of material to achieve the desired average thickness & also the curing of concrete.
- Dr. Fixit TankPro E changes color upon exposure to UV light without affecting the technical performance of the product.
- Care should be taken, that should not be ingress of water into material from time of mixing to initial drying time of finished product for minimum 7 hours.
- Ensure the moisture should be less than 5% before application of primer and main coat.

Technical Properties:

PROPERTY	TEST METHOD	OBSERVED VALUE
Mix Ratio (Hardener Part A: Resin Part B) by weight	Internal	1:3.8
Physical Form	Internal	Grey flowable liquid
Specific Gravity of mix	ASTM D1475 @25 oC	1.2-1.3
Solid Content	Internal	~100%
Pot Life	@25 °C	25 min
Recoat time		6-24hrs
Elongation	ASTM D412	100% ± 10
Tensile Strength	ASTM D412	12 MPa ± 2
Hydrostatic Pressure Resistance (Positive)	EN 12390	Passes 5 bar
Shore A Hardness	ASTM D2240	80
Abrasive resistance	ASTM D 4060	32 mg
Adhesion to concrete	ASTM D7234	2Mpa (concrete failure)
Water Absorption	ASTM D570	0.3 %
Crack Bridging @3.2mm	ASTM C1305	Pass (10 cycles)

Chemical Resistance (Tested as per ASTM D543):

CHEMICALS	RESULTS
Ethyl Alcohol (50%,)	Excellent
Sodium Carbonate (10%)	Excellent
Ammonium Hydroxide (10%)	Excellent
Potassium hydroxide 10%	Excellent
Diethyl Ether	Discoloured, Good
Sea water	Excellent
Sodium hydroxide 10%	Excellent
Sodium hypochlorite 3%	Excellent
Sulfuric acid 10%	Excellent
Tannic acid	Excellent
Xylene	Excellent
Nitirc Acid (Conc., 10%)	Excellent
Formic acid 10%	Excellent
Gasoline/Petrol	Excellent
Fatty acids/Oleic Acid	Excellent
Hydrogen peroxide 10%	Excellent
Sodium Carbonate (10%)	Discoloured, Good

The local Pidilite technical service office should be consulted for resistance to specific chemicals and conditions

Packaging

13 kg.

Coverage

For ETP TANKS:

Minimum total consumption: 1.4 Kg/m2 applied in 2 coats.

For STP TANKS*:

Minimum total consumption: 1 Kg/m2 applied in 2 coats.

*It is recommended to have higher film buildup to have better protection and durability.s.

Shelf Life & Storage

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.

Health & Safety:

- Skin Contact: Wash skin with soap & water. Remove contaminated clothes.
- On eye contact: Immediately splash eyes with plenty of water. Consult Physician if irritation persists.
- Ingestion: It is based on water/solvent free Coating system, however, seek medical help

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals

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