Dr. Fixit Flexi PU 270(I)

LIQUID APPLIED POLYURETHANE WATERPROOFING MEMBRANE

Description

Dr. Fixit Flexi PU 270(I) is a single component, liquid applied, highly permeant elastic, moisture cure polyurethane membrane for long lasting waterproofing performance.

Dr. Fixit Flexi PU 270(I) based on pure elastomeric, hydrophobic polyurethane resins which cures to form seamless and durable waterproofing coating.

Standard compliance / Specification

Meets the requirement as per ASTM C 836-18

Areas of Application

- RCC Roof
- RCC podium

Features & Benefits

- User friendly – Easy to apply by brush, roller, and spray
- Formed seamless coating – No laps & joints
- Highly Elastic & Flexible – Excellent crack bridging
- Excellent adhesion with Concrete, Metal & Plastic – Fully bonded coating
- Resist high hydrostatic pressure – High Water Resistance
- Root resistance – Durable for landscape area

Method of Application

1 SURFACE PREPARATION

- Prepare the surface thoroughly by cleaning, washing and removing dust, dirt, oil, grease and loose particles.
- Concrete substrates should have minimum 25 MPa compressive strength and minimum 1.5MPa cohesive bond strength. Maximum permissible moisture content in concrete should not be more than 5 %.
- Ambient temperature shall be between 5^{0}C to 35^{0}C. During application, substrate temperature shall not exceed more than 60^{0}C. The temperature of the substrate must be 3^{0}C above the dew point temperature. The recommended humidity is 5 to 80 %. Higher humidity may modify the curing performance of Dr. Fixit Flexi PU 270(I) and may affect the final finish.
- Clean thoroughly construction joints and all cracks >2mm in width and prime locally with Dr. Fixit Pidiprime A. Fill the prepared cracks and Construction joints with Dr. Fixit PU sealant and allow to cure for recommended period. All treated cracks, joints and details areas like wall floor connections, pedestals peripheries, penetrations, drain outlet junctions must be treated with Dr. Fixit Cipoxy 16D primer and followed by single layer of Dr. Fixit Flexi PU 270(I) at 200mm width. Place the correct cut strip of 60 GSM geotextile fabric over the wet coating. Apply second coat of Dr. Fixit flexi PU 270 (I) to make it fully saturated and soaked. Allow to cure for 12 to 18 hours.

2 PRIMING:

- On prepared concrete surface it is recommended to apply Dr. Fixit Aquaseal Primer / Dr. Fixit Cipoxy 16D.
- Dr.Fixit Aquaseal Primer to be mixed for 2-3 mins in ratio of 2.5:1 (Base to Hardener) by volume. After mixing add 1 part of water and again mix before application.
- Dr.Fixit Cipoxy 16D primer to be mixed in 1:1 ratio by volume for min 3 minutes before using.
- Apply the primer in one coat as per the application guildeline consumption @ 150-200 ml/m^{2}. Allow the primer to dry for 3-4 hrs. Consumption of primer may vary and depend upon substrate porosity.

- All metal surfaces should be grit blasted to obtain minimum Sa 2.0 to 2½ surface finish. incase where If blasting is not practically possible then using of power tools to remove loose rust and scale to Sa.2.0 standard and ensure the surface to be dry, free from dust, grease and loose particles. After surface preparation immediately apply primer coverage @ 150 ml/m² and allow the same to become tack free before proceeding for Dr. Fixit Flexi PU 270(I)

3 APPLICATION:

- Stir well Dr. Fixit Flexi 270(I) with low-speed mechanical stirrer before use. Pour Dr. Fixit Flexi 270(I) to the primed substrate and spread with roller or brush. Airless spray can use for faster and mechanize application.
- It is highly recommended to restrict maximum WFT of 0.6mm thickness in each layer. Allow it to cure for 12 to 18 hours and apply consecutive layer at same recommended thickness and consumption (not later than 48 hours).
- After 3rd coat of application, allow it to cure complete Dr. Fixit Flexi PU 270(I) for 7 days to meet desired properties

4 PROTECTION SCREED

- Loosely Lay more than 100 GSM geotextile fabric over fully cured Dr. Fixit Flexi PU 270(I) as separation layer. Protect the coating with M- 20 grade concrete screed at minimum thickness of 50 mm and at 1:100 slope toward drain outlet.
- Angle fillet must provide while screed application using polymer modified mortar at all junctions. Control joints shall provide along the length and breadth of entire screed area by using a saw cutting machine within 18-24 Hours of application of screed. The panel size of 3.25 m x 3.25 m is recommended with a maximum panel size of 15 m², or as specified. All joints shall be fill with Dr. Fixit PU sealant or any other elastomeric material.

Precautions & Limitations

- All corners, gaps, joints, protrusions & outlets shall be coated with two extra coats.
- Ensure the application surface is dried with moisture contents <5%, Do not apply during rains
- Never dilute Dr. Fixit Pidipoxy MIEP and Dr Fixit Flexi PU 270(I) with any other solvent
- The application should not commence if the surface temperature <5°C.

Technical Information

High Solid content, cold applied Liquid Applied Elastomeric Waterproofing Membrane Physical Requirement as per ASTM C 836-2018

TESTS	TEST STANDARDS	SPECIFICATION REQUIREMENT AS PER ASTM C 836-2018	RESULTS
Hardness (Shore A Scale)	ASTM D 2240-15	>50	68
Non volatile content %	ASTM D 6511	Min 80%	>85%
Low temperature crack Bridging Capability	ASTM C 1305	No cracking	No crack at 3.2 mm
Film thickness	ASTM C 836	1.5 ± 0.1mm	1.5mm
Adhesion in peel after water immersion	ASTM C 794	4.4N	5.2N
Extensibility after heat ageing	ASTM C 1522	6.4mm, No crack observed	No crack observed
Stability	ASTM C 836	Minimum 6 Months	Pass

Additional Technical Properties

TESTS	REFERENCE STANDARDS	RESULTS
Tensile Strength	ASTM D 412	≥ 2 N/mm²
% Elongation at Break	ASTM D 412	400%
Tensile Set	ASTM D 412	≥ 7%
Tear Strength	ASTM D 624	≥ 15N/mm
Water Vapor Permeability	ISO 9932:91	≥ 25 gm/m²/day
Resistance to Water Pressure @ 5 bar	EN 12390: 8	Resistant
Adhesion to concrete	ASTM D 7234	≥ 1.5 N/mm²
Resistance to Root Penetration	UNE CN/TS 14416	Resistant

Theoretical Coverage

2.3 - 2.5 kg/m² in 3 coats is recommended theoretical consumption. It may vary and depends upon surface undulations and other detailing.

2.5 kg/m² is minimum recommended consumption when applied in three layers to achieve a DFT of 1.5 mm to comply with ASTM C 898 Standard Guide for use of High Solid Content, Cold Liquid- Applied Elastomeric Water Proofing Membrane.

Greater thickness can be built up for critical applications as required in layers.

Packaging

- Dr. Fixit Flexi PU 270(I) is available in 25 Kg Pails in red or brick red. Other colors may be supplied on demand.

Shelf Life & Storage

- Pails should be stored in dry and cool rooms for up to 12 months.
- Protect the material against moisture and direct sunlight.
- Storage temperature: 20 to 30°C Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Health & Safety Precautions

- During application wear protective clothing, gloves and eye goggles during application. Avoid product to contact eyes and skin.
- Skin Contact: Wash immediately with plenty of clean water.
- Eye contact: In the event of eye contact splash plenty of clean water immediately and seek medical advice.
- Dr. Fixit Flexi PU 270(I) contains isocyanates. See information supplied by the manufacturer. Please study the Material Safety Data Sheet.

DR. FIXIT®
WATERPROOFING EXPERT

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals

Pidilite

Pidilite Industries Limited
Construction Chemicals Division
Ramkrishna Mandir Road, Post Box No. 17411
Andheri (E) Mumbai 400059 INDIA
Tel +91-22-2835 7000 • Fax +91-22-2835 7008
www.drfixit.co.in • info.drfixit@pidilite.com
Dr. Fixit Advice Centre (Toll Free No.) 1800 209 5504