

Dr. Fixit Roofseal Ultra



ACRYLATE WITH FLUTYNE

Description

Dr. Fixit Roofseal Ultra is polyurethane hybrid next generation liquid applied roof top coat waterproof coating with flutyne protection technology. Designed to resist water intrusion and heat. It cures into a monolithic high elastic waterproofing membrane resistant to ponding water and with improve UV, dirt resistant, with solar - reflectance index of 106.

Standard Compliance / Specification

Meet and exceeds the ASTM D 6083 - Type I standard specification

Areas of Application

Ideal as top coat for waterproofing of terraces, flat and slope, curved roofs etc.

- Brick-Bat Coba finish.
- Cement mortar screed
- China mosaic tile roofs
- Complex detailing, up-stands, penetrations and terminations

Features & Benefits

- Waterproofing - Offers a long term protection in severe weather conditions.
- Long Life - Excellent weathering resistance (up to 12 years) when reinforced with glass fiber mesh.
- High Build system - Provides higher dry film thickness of up to 1mm in two coats.
- Crack Bridging - Outstanding flexibility with crack bridging up to 3mm.
- Reflective roof coating - Reduces surface temperature up to 10°C** in the peak summer.
- User friendly - Single component, Ready to use easy to apply.
- Low VOC - Green building certification from Singapore Council and GRIHA (India).

Methods of Application

1 SURFACE PREPARATION

- Roof substrate must be pressure-washed with water with, a minimum working pressure of 1,400 psi is to be used to and/or remove all dirt, dust, chalking and waste products.
- When encountering roof substrates that have living organisms such as algae, mold or fungus, should be clean with 3:1 bleach solution or biowash shall be used to kill and remove these organisms during the roof cleaning.
- All new cement-sand, freshly laid screed / IPS surfaces should be allowed to age at least 12 weeks before application of topcoat surface coating.
- Ensure that the roof slope have a minimum of 1 in 80 or 100 is already provided.
- Check the soundness of the top screed, half round angel fillet / unsound plaster on vertical surface / joints surrounding pipe ducts of rainwater outlet, look for de-bonding signs by tapping with nylon hammer.
- Ensure there is a 1 water drain outlet of minimum 100 mm dia for 500 Sq.ft floor area and gaps around pipe inserts should be sealed properly with polymer modified mortar.
- Stagnant water due to undulation in the roof surface should be marked and repaired with PMM.
- All joints / corners / penetration points, rainwater outlets, marble / tile strip joints should be grouted with polymer modified mortar.
- Ensure that all penetration points, mechanical equipment, HVAC & solar panels are suitably placed on the up stands and rounded with angle fillet.

WATERPROOFING OF CRACKS AND JOINTS:

All visible cracks more than 0.50mm and not giving hollow sound, on the IPS/screed or at the junction of flat roof & vertical parapet wall, pipe joints, should be checked for soundness.

- Cut and widen all cracks in V shape with mechanical cutter in the size 8-10 mm in width.
- Clean cracks, of dust, residue or other contamination. Prime locally with the Dr. Fixit Pidiprime A with brush and



allow to cure tack free. Fill all prepared cracks in screed with Dr. Fixit PU Sealant. Allow the sealant to air cure for 24Hrs.

SCREED REPAIR

- Check the existing roof surface with nylon hammer and remove the existing unsound, de-bonded screed, surface defects, etc. Break and remove the hollow sound screed and plaster surface with mechanical cutter.
- Clean the surface and brush apply a bond coat of Dr. Fixit Pidicrete URP mix in the ratio of 1:1 (URP 1: Cement 1) by volume to make it lump free slurry when applied on in the pre wet surface.
- Mix Dr. Fixit Pidicrete URP 10% by weight of cement in (M20) concrete in ratio of 1:1.5:3 i.e. one bag of 50kg cements: 1.5 times volume of sand: 3 times volume of aggregates: 25L water. Level the repair mortar and finish with trowel.
- Moist wet curing must be done up to 3-4 days. Prolonged wet curing will minimize the chances of cracking and improve the physical properties.

TREATMENT OF ROOF WITH STAGNANT WATER

- Make the surface rough by hacking and chipping out the undulations portion. Extend it on the larger area for creating slop towards drain.
- Apply a bond coat of Dr. Fixit Pidicrete URP mix in the ratio of 1:1 (URP 1: Cement 1) by volume to make it lump free slurry when applied on in the pre wet surface.
- Prepare the Polymer modified mortar (PMM) mixing with Dr. Fixit Pidicrete URP 10% by weight of cement in the ratio of 1:3 when the bond coat is tacky, finishing with trowel. Moist wet curing must be done up to 3-4 days.

2 WATERPROOFING APPLICATION

- Dilute 2 parts of Dr. Fixit Primeseal with 1 one part of water to 8 sq.mt. Allow primer coat to dry for 6 to 8 hrs. Stir well before use. Apply 1st coat of Dr. Fixit Roofseal Ultra waterproof coating without dilution spreading at the rate of 0.70 litre/Sq.mt/Coat.
- Laying of 45 GSM Fiber glass mesh incorporated in the coating as a sandwich layer when the first coat is still in wet condition.
- Allow the first coat to dry for approximately 4-6 hours before applying the 2nd coat at 90° to the first coat.
- Apply second coat of Dr. Fixit Roofseal Ultra waterproof coating without dilution spreading at the rate of 0.70 litre/Sq.mt/ Coat in forced coverage, with total material consumption of 1.40 litre/ Sq.mt in 2 coats. Ensure there are no pinholes or air bubbles on the membrane.
- Allow the system to air cure for 7 days minimum.
- For vertical wall & parapet walls surfaces: Apply Dr. Fixit Raincoat Select base coat and top coat system for complete waterproofing of terrace roof.

Note- It is mandatory to reinforce Dr. Fixit Roofseal Ultra coating with 45 GSM glass fibre mesh as a reinforcing material for Roof area >100 Sq.mt

3 MAINTENANCE & RECOATING OF DR. FIXIT ROOFSEAL ULTRA

- Over a period of time or some years, if Dr. Fixit Roofseal Ultra has developed cracks on exposure to weathering or extreme temperature variations, it is extremely easy to recoat over it again. Cracks if any can be cut in v groove and filled with PU sealant. Placing a 45gsm glass fibre mesh over a recoat, after properly cleaning and sanding the surface. Apply coats and check to see no void surface is left uncoated with second coat. Allow second coat to dry for 4-6 hours.

4 POST APPLICATION

- Conduct pond test after 7 days, Stagnated water up to 50mm height for 24 hrs.



5 DRYING/ CURING TIME AT 300C/ 85% RH

- Touch Dry - 60 min.
- Hard Dry - 5 to 6 hours.
- Drying times may vary depending on the prevailing climatic conditions; low temperature and higher relative humidity may prolong the drying process.

6 TOOLS CLEAN-UP

- Brush & Roller can be cleaned up with water while it is still wet.

Precautions & Limitations

- Do not apply if rain is expected within 48 hours after application.
- Do not apply Dr. Fixit Roofseal Ultra over expansion or moving joints directly.
- Do not apply if the surface temperature is greater than 35°C or below 10°C, or likely to fall below 10°C during the application or drying period.
- Pidilite Industries does not give any warranty against dirt pick up on Dr. Fixit Roofseal Ultra.
- There is a reduction of Gloss /Sheen/ageing which is part of weathering process.
- For smooth & Nonporous surfaces like Marble, Granite, glazed ceramic tiles & clay tiles apply Dr. Fixit Primeseal Plus (Tile primer) before application of Dr. Fixit Roofseal Ultra.
- Dr. Fixit Roofseal Ultra is not recommended over the application on Kota stone, Kadappa stone, Mud phuska roof brick tiles surfaces.

Technical Information

PROPERTIES	UNIT	TEST METHOD	RESULTS
Solid Content	%	ASTM D1644	69
Density	(gm/cc)	ASTM D 1475	1.43
Elongation at Break	%	ASTM D 412	300
Tensile Strength	N/mm ²	ASTM D 412	1.6
Tensile Strength with 45 Gsm GF mesh	N/mm ²	ASTM D 412	3.5
Pull off Adhesion	N/mm ²	ASTM D 4541	1.8
Shore A Hardness	Values	ASTM D 2240	72
Crack Bridging Ability	mm	EN 1062 -7	3
Water Vapour transmission	g/m ² /day	ASTM E 96	26
Tear Resistance with 45 Gsm GF mesh	K/Nm	ASTM D 624	69
Water immersion test	Visual	ISO 2812- 2	Resistant
Dry Film Thickness	→	EN 1062 -1	950

Test Conducted	Test method	Specification as per ASTM D 6083 M Type I	Test results
Solid Content w/s %	ASTM D 1644	> 60	69 ± 1
Storner Viscosity @23 °C KU	ASTM D 562	80 -145	128



Initial Elongation at Break %	ASTM D 2370	Min. 100	300
Tensile Strength N/mm ²	ASTM D 2370	Min 1.4	1.6
Tensile Strength N/mm ² with GF mesh	ASTM D 2370	Min 1.4	3.5
Permeance	ASTM D 1653	Max 50	26
Peal Adhesion to Concrete N/m ²	ASTM D 903	Min 350	475
Adhesion to Aluminum N/m ²	ASTMD C 794	Min 350	430
Adhesion to Mortar N/m ²	ASTMD C 794	Min 350	450
Adhesion to Glass N/m ²	ASTMD C 794	Min 350	380
Low temperature flexibility after 1000 Hrs. accelerated weathering	ASTM D 522	Min Pass 13 mm mandrel @ 10 °C	Pass
Final Elongation after 1000 Hrs. Accelerated weathering	ASTM D 2370	Min 100 %	130
Accelerated weathering 1000 Hrs.	ASTM D 4798	Visual	No Cracking
Fungi resistance	ASTM G 21	Zero Rating	Zero
Tear resistance K/Nm	ASTMD 624	>21	25
Tear resistance K/Nm with GF mesh	ASTMD 624	>21	69
Water swelling %	ASTM D 471	Max 20	0.2
Shore A Hardness	ASTM D 2240	Value	72
Crack bridging ability mm	ASTM C 1305	Visual	Pass - No sign of cracking, Splitting and pinholes
Resistance to Fire	ASTM E 108:2020	Spread of Flame	Class A
Adhesion to Concrete N/mm ²	ASTM D 4541		1.8
SRI Index	ASTM E 1980-01		106
Water permeability @5 bar	EN 12390-8		Nil

The values in the above table are obtained in controlled lab conditions when tested properly by competent laboratory.

Note: Tolerance up to 5% on the lower side from the above values is allowable.

Theoretical Coverage*

Consumption at the rate 1.40/ Litre Sq.mt in 2 heavy coats to achieve dry film thickness of 850 to 1000 microns.

*This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption. Application rate is job specific. Additional material may be required to achieve target Dry Film Thickness (DFT).

**Comparative thermal performance of Dr. Fixit Roofseal Ultra on roofing. Temperatures recorded from 1 pm to 3 pm of roof surface recorded with the aid of laser guided infrared non-contact thermometer.

Packaging

20,4 Litre (Colour: White)



Shelf Life & Storage

- Shelf life is 36 months from the date of manufacturing in unopened conditions. To be stored in original and unopened packaging in a cool and dry place away from direct sunlight.
- Recommend temperatures of (10°- 30°Celsius) for storage of Dr. Fixit Roofseal Ultra and anything below 10 °Celsius and above 30°Celsius is certainly not recommended.

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 Based Coating system, however, seek medical help.

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals



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