

Dr. Fixit Roofseal Select



HIGH PERFORMANCE SOLAR REFLECTIVE WATERPROOF COATING FOR ROOF

Description

Dr. Fixit Roofseal Select is formulated with Acrylate-Silicon-Based Technology and, upon curing, provides outstanding waterproofing capabilities. Dr. Fixit Roofseal Select liquid membranes are highly flexible, accommodating roof movements caused by temperature variations and resisting crack formation. When applied in compliance with the guidelines for application, this will extend the life of the roof by several years without the need to replace the entire roof structure. Additionally, white-colored membranes also offer a cool roof effect by reflecting solar radiation, especially during the harsh summer months.

Areas of Application

Over existing building Flat/ Slope roof surface like;

- Brick-Bat Coba finish, Screed
- China mosaic roof tiles.

Features & Benefits

- Waterproofing - Completely protect surfaces from water penetration.
- High Build system - Provides higher dry film thickness up to 1 mm in three coats.
- Crack Bridging - It expands and contracts with the roof movement to resist damage.
- Weather resistance- Offers a long term protection in severe weather conditions.
- Reflective roof coating - Reduces surface temperature up to 10°C** in the peak summer.
- User friendly - Single component, easy to apply.
- Ten (10) Year Performance warranty.
- Low VOC - Non toxic.

Method of Application

1 SURFACE PREPARATION

- The terrace roof must be cleaned with stiff nylon and wire brushing, followed by high-pressure water jet cleaning. Algae and fungus on the parapet walls and terrace roof shall be treated with a fungicidal solution.
- Freshly laid cement-sand concrete screed should be designed to be greater than 80 mm thick and have a 50 mm thickness at the end slope. Allow the concrete to complete a wet and dry cure for 8 weeks before applying the top coat coating.
- Mechanical methods like grinding are recommended to enhance the adhesion and bonding of coatings to smooth, fresh concrete surfaces to remove contaminants, laitance, and existing coatings.
- For a full roof repair, according to IS 456-2000, the minimum grade of concrete screed should be M25 or M20 with a maximum free water-to-cement ratio of 0.5 and a minimum cement content of 300 kg/m³. This screed should be admixed with Integral waterproofing liquid Dr. Fixit LW+ and 12 mm and 6 mm micro polypropylene fibers.
- Make sure that the roof slope is at least 1 in 80 or 1 in 100, as per the specified requirements.
- Remove concrete screed, brickbat coba, China mosaic, or ceramic tiles if they are found to be debonded by more than 30% from the roof substrate during a hammer test. Proceed to reach up to the base slab level for fresh waterproofing as necessary.
- Thoroughly inspect the terrace roof for cracks, blisters, ponding, exposed foam, and open seams. Evaluate the debonding of screeds or tiles on the terrace roof by tapping with a nylon hammer. Give special attention to areas around roof penetrations, ponding spots, and parapet wall cracks.
- Ensure there is a single water drain outlet of at least 100 mm in diameter for a 500-square-foot floor area, and gaps around pipe inserts should be sealed properly with polymer-modified mortar.
- Stagnant water caused by undulations in the roof surface should be identified and repaired using Polymer-Modified Mortar (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.



2 WATERPROOFING OF CRACKS AND JOINTS

- All visible horizontal cracks greater than 0.50mm and not giving hollow sound on the concrete screed; at the junction of the flat roof and 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 and fill the cracks with component moisture curing Dr. Fixit PU Sealant or Feviseal HY 100/200 sealant. Allow the sealant to air cure for 72 hours.

3 SCREED REPAIR

- Check the existing roof surface with a nylon hammer and remove any unsound, de-bonded screed, surface defects, etc. Break and remove the hollow sound screed and plaster surface with a 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 lump-free slurry when applied on the pre-wet surface.
- Mix Dr. Fixit Pidicrete URP 10% by weight of cement in M20 concrete in a ratio of 1:1.5:3, i.e., one bag of 50kg of cement. 1.5 times volume of sand: 3 times volume of aggregates: 25L water. Level the repair mortar and finish with a trowel.
- Moist, wet curing must be done for up to 5-7 days. Prolonged wet curing will minimize the chances of cracking and improve the physical properties.

4 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 slope 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 5-7 days.

5 WATERPROOFING APPLICATION

- Apply a coat of Dr. Fixit Roofseal Select, diluted with water in a 2:1 ratio, as a self-priming coat at a rate of 8-10 sq. m./liter. Allow this coating to dry for 3-4 hours before applying the first coat.
- Apply the first coat of Dr. Fixit Roofseal Select at a rate of 0.45-0.5 ltr/sqmt/coat. Place a 45-gsm glass fiber mesh with a size of 2.5 mm by 2.5 mm between the first and second coats while the first coat is still wet. Allow the first coat to dry for 4-6 hours.
- Apply the second and third coats of Dr. Fixit Roofseal Select with the same application coverage, but in a direction perpendicular to that of the first and second coats. Allow each coat to air cure for a minimum of 4-6 hours after application.
- Ensure that no void surface is left untreated or uncoated. All coats should be applied in directions perpendicular to each other, ensuring the correct consumption of material, resulting in a total dry film thickness of 900-1000 microns with system coverage of one self-primer coat and three undiluted coats at a rate of 1.5-1.6 liters per square meter.
- Allow the coated surface to fully air cure for the remainder of the drying time of 7 days.

Note- It is mandatory to reinforce Dr. Fixit Roofseal Select coating with 45 GSM glass fibre mesh as a reinforcing material.

6 POST APPLICATION

- let the waterproofing cure for at least 7 days before you proceed with your flood / pond testing by ponding water up to 50mm height for 24 hrs.

7 DRYING/ CURING TIME AT 30 °C / 85% RH

Touch Dry - 60 min.

Hard Dry - 4 to 6 hours.



- Drying times may vary depending on the prevailing climatic conditions; low temperature and higher relative humidity may prolong the drying process

8 MAINTENANCE & RECOATING

- If Dr. Fixit Roofseal Select develops cracks due to weathering or temperature variations over time, it can be easily repair and. Simply cut any cracks into a V-groove up to 8mm in width and depth and fill them with PU / hybrid sealant. Allow the sealant to air cure for 72 hrs, then place a 45-gsm glass fiber mesh over length of crack and apply a coat of Dr. Fixit Roofseal Select. Apply the second coat after the interval of 4-6 hrs ensuring no void areas are left uncoated with the second coat.

9 FOR VERTICAL WALL AND PARAPET WALL SURFACES

- Apply the Dr. Fixit Raincoat Classic / Select external wall coating system on vertical surface and parapet wall for complete waterproofing of terrace roofs.

Precautions & Limitations

- All corners, gaps, joints, Roof leak repair area & outlets shall be coated with two extra coats.
- Do not apply if rain is expected within 48 hours after application.
- The product is designed only for foot traffic and not vehicular or movement of machinery or equipment.
- Do not apply Dr. Fixit Roofseal Select over expansion or moving joints.
- To achieve the full proof waterproofing, parapet walls should be covered with Dr. Fixit Raincoat.
- Dr. Fixit Roofseal Select is recommended over existing building Flat/ Slope roof surface like Brick-Bat Coba finish, Screed China mosaic roof tile surface, Clay tile roof. Apply Dr. Fixit Primer AC for application on non-porous surfaces like Marble, Granite, glazed ceramic tiles surfaces not recommend for application on Kota, & kadappa stone tiles and mud phuska roof, and over mangalore tile surface.
- Do not apply during rain, fog, mist or when ambient temperature falls below 10°C or if the temperature might drop to this level within 4 hrs of application. Similarly, in case of extremely hot conditions where the surface temperature is more than 36°C, do not apply the product. Cool down the surface temperature by watering the area and then apply.
- Keep the material in close when not in use.

Technical Information

PROPERTIES	STANDARD SPECIFICATION	RESULTS
Appearance	Actual Viscous	Liquid
Solid Content, w/s %	Actual	62-65%
Tensile Strength, N/mm ²	ASTM D 2370	2
Initial Tensile Strength with FiberN/mm ²	ASTM D 2370	6-8
Elongation at Break, %	ASTM D 2370	200%
Tear Resistance with Fiber N/mm	ASTM D 624	34
UV Resistant - Accelerated	ASTM G 154 : 2000	Excellent: No thermal degradation,
Shore-A Hardness	ASTM D2240-2015	80
Adhesion Strength, N/mm ²	ASTM D 4541 : 2002	>1.50



Water Swelling-24 Hrs.%	ASTM D 471	4-6
Crack Bridging, mm	EN1062-7	2
Abrasion Resistance mg	ASTM D 4060	21
Dry film Thickness	Microns	900 - 1000

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

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

*Theoretical Coverage

System: Self Primer coat + 3 Undiluted Coats : 1.5 - 1.6 litre / sqm

*Coverage may vary as per the nature & texture of substrate.

Storage

- 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 Select and anything below 10°Celsius and above 30°Celsius is certainly not recommended.

Packing

4 & 20 litres

Shelf Life

- Shelf life is 36 months from the date of manufacturing if stored in original and unopened packaging in a cool dry place away from direct sunlight.

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: Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a Physician.
- Protection: Use personal protective equipment's like, gloves, goggles for eye protection and face mask

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals



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

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