

# Dr. Fixit Cool Roof Coating



## HEAT REFLECTIVE WATERPROOF COATING FOR METAL ROOFS & TERRACES

### Description

**Dr. Fixit Cool Roof Coating** is heat reflective environmental friendly APEO free elastomeric waterproof coating engineered with UV cross-linkable polymer technology. Upon drying, exposure to natural light, UV reaction with polymers cures the coating to very elastic yet very tough and highly heat reflective membrane. Once completely cured, it exhibits excellent resistance to dirt pick-up and UV; an essential and critical need to retain whiteness thereby heat reflective properties of installed coating with ageing. The monolithic protective membrane keeps the roof substrate cool which in-turn help boost energy efficiency and operating comfort for roofs constructed with Galvanised steel, Pre-coated Sheets, Cement Sheets and Concrete Roofs.

### Standard Compliance / Specification

ASTM E 1980-11 for Solar Absorbance, Reflectance, and Transmittance of Materials  
ASTM E 108: 2020 Resistance to Fire

### Areas of Application

- Heat Reflective & Waterproof Coating for galvanized sheets & Metal roofing panel sheets over the following surfaces
- Factories
- Warehouse
- Shopping malls
- Clubs

### Features & Benefits

- UV Cross-linkable, 100% Pure Acrylic
- High solar reflectance (SRI 108)
- Elastic and Tough; withstand pedestrian traffic
- Excellent resistance to dirt pick-up
- Resist growth of Algae, Fungi
- Eco friendly; free from hazardous chemicals
- 5 Years warranty for film integrity\*

## METAL ROOF COATING SYSTEM

### Method of Application

#### 1 SURFACE PREPARATION

- All loose existing coatings, heavy rust, debris, and fresh roof cement must first be removed. It may be necessary to add a fungicide to remove heavy accumulations of fungi and algae.
- Power wash at minimum 2000 psi, Prepare the surface thoroughly by cleaning, washing and removing dust, dirt, oil, grease and loose particles.
- Bitumen based waterproofing treatments if existing, must be completely removed by mechanical scarification or by any other effective mechanical means.

#### 2 THE STEPWISE REPAIR WORKS OF RECTIFYING WATER LEAKAGES AND BEAUTIFYING THE OLD METAL ROOF ARE AS FOLLOWS:

- Stripped, loose or missing fasteners should be replaced with the next larger diameter fastener size.
- Unsound rust should be scraped, wire brushed or sand blasted to remove all loose rust. Panels that are rusted to the point where their structural integrity may be compromised should be replaced with new panels to match the existing.
- Remove all Bitumen based patching and flashing materials by any other effective mechanical means.
- Remove all silicone caulks and sealants.
- All metal surfaces to receive the Dr. Fixit Cool Roof Coating must be thoroughly cleaned and dry prior



to application.

- Rust treatment with rust remover on the affected corroded areas, as required and needed.
- Replacement of roof fasteners, flashings and capping, as required and needed.
- Sealing up of all lapping joints, gaps, flashing and capping with Non-Woven Geotextile Fleece Membrane and Cool Roof Coating.
- All joints seems and fasteners shall be sealed with liberal amount of coating with Dr. Fixit Cool Roof Coating reinforcing with 40 to 50 GSM polyester fabric mesh or Non-Woven Geotextile Fleece fabric/ seam tape sandwich between coats of Dr. Fixit Cool Roof Coating.
- Cut desired length of fabric mesh or seam tape press down firmly with pad, finger pressure or roller making sure fabric stays conforming to the roof surface as you smooth out on to the surface. Edges should be free of fish mouths and tunnels.
- Applying the entire metal roof and gutters with 1 coat of anti-corrosion primer and 2 coats of Cool Roof Coating

### 3 APPLICATION

#### GI (GALVANIZED CORRUGATED) AND METAL SHEETS

- Apply and prime single coat of Anti-Corrosion Primer Dr. Fixit Primer AC over GI (Galvanized Corrugated) sheets coverage at the rate 5 to 8 Sq.mt/litre . For powder coated metal sheets roofing prime the surface with Dr. Fixit Cipoxy 16D two component epoxy primer by brush, roller coverage at the rate 5 to 8 Sq.mt/litre.
- Apply two top coats of Dr. Fixit Cool Roof coating by brush, roller, spray on the well prepared surface at the rate 2.7- 3.0 Sq.m/L/coat in forced consumption to achieve combine DFT of 400 micron. Wait until the first coat is dry before applying the second coat diagonally to the first in the interval of 4-6 hours.
- Allow the coated surface to air cure fully for 7 days.

#### CEMENT SCREED ROOFS

- Subjective to foot traffic. Repair on the existing terrace surface and parapets, etc. Must be done prior to the coating of, Dr. Fixit Cool Roof Coating which is a top coat and final system.
- All new cement-sand, freshly laid screed surfaces should be allowed to age at least 12 weeks before application of top coat surface coatings.
- All visible cracks more than 0.50mm and not giving hollow sound, on the IPS/screed or at the junction of flat roof shall be cut and widen V shape up to 8-10 mm in width. Apply 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 72Hrs.
- Ensure that the roof slope of a minimum of 1 in 100 is already provided.
- To ensure adhesion apply single coat of Dr. Fixit Primeseal with water dilution in the ratio of 2:1 as a bonding primer spreading at the rate of 8-10/Sq.mt/litre. Substrate MUST be in SSD condition for application of primer. Allow the primer to cure according its technical instructions.
- Apply two top coats of Dr. Fixit Cool Roof coating on the well prepared surface at the rate 2.2 -2.4 Sq.mt/litre/ coat, without water dilution, application being the same for both the coats. With forced consumption to achieve combine DFT of 450 -500 microns. Wait until the first coat is dry before applying the second coat diagonally to the first in the interval of 4-6 hours.
- Allow the coated surface to air cure fully for 7 days.



## Technical Information

PROPERTIES	UNIT	TEST METHOD	RESULTS
Nature			Single component
Solid (by wt)	%	ASTM D 1644	68 ± 1
Elongation @ break	%	ASTM D 412	190
Tensile strength	N/mm <sup>2</sup>	ASTM D 412	≥ 1.5
Pull off Adhesion - Concrete	N/mm <sup>2</sup>	ASTM D 4541	≥ 1.50
Pull off Adhesion - Metal sheet	N/mm <sup>2</sup>	ASTM D 4541	≥ 1.50
Crack bridging ability	mm	EN1062	1.5
Water permeability @5 bar	Values	EN12390	Nil
Water absorption test	%	ASTMD 471	Pass
Accelerated Weathering After 1000 Hrs	Visual	ASTM D 4798:2011	No Cracking
Abrasion Resistance, CS 17 Wheel, 1000 Cycles	mg	ASTM D 4060: 2019	64
Resistance to Fire	Spread of Flame	ASTM E 108: 2020	CLASS A
SRI Index	Values	ASTM E 1980-01	108

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\*

GI & Metal Roof Coating 2.7 - 3.0 Sq.mt/litre/coat

Concrete screed roof coating 2.2 - 2.4 Sq.mt/litre/coat

\*Coverage may vary depending upon the texture and porosity of the surface.

\*\*The degree of surface temperature reduction will vary depending on the condition of the existing surface, site location, roof pitch and weather factor.

### Packaging

20 Litres (White color)

### Precautions & Limitations

#### GI & Metal Roof Coating Systems:

- Always add 10% to the total roof area to compensate for panel profile.
- Examine the roof for areas of heavy rusting and determine the areas.
- Look for signs of ponding water and other indicators of insufficient slope and drainage.
- Inspect the fasteners for any movement in the screws around the skylight sheet installation. Apply Acetic Cure silicone sealant in the bottom and top corners of skylight sheet to seal leaks around for weather sealing applications. Seal all outer corners of skylight sheet with PU sealant followed by 40 Gsm Geo textile fabric to make the sheet joints Leak-proof.
- Ponded water areas should be corrected to provide positive drainage prior to applying of Dr. Fixit Cool Roof Coating.
- 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.



- Inspect applied product after each application step to ensure proper application techniques and compliance with coverage rate minimums.
- To ensure recommended DFT use consumption coverage method.
- Do not apply during rains.

\*Pidilite Industries does not give any warranty against dirt pick up on Cool Roof Coating.

#### CONCRETE SCREED ROOF

- Existing roof systems to be visually inspected for conditions that may adversely affect adhesion of performance of newly installed products.
- Damaged or hollow portions, sharp edges, etc. must be cut and repaired with a polymer-modified mortar using Dr. Fixit Pidicrete URP.
- All new concrete screed must saw cuts or create control joints in concrete screed and joints should be filled with Dr. Fixit PU Sealant.
- All corners, gaps, joints, drain outlet areas shall be coated with two extra coats.
- Do not apply if rain is expected within 48 hours after application.
- Do not apply to flat surfaces with poor drainage or where ponding water will exist.
- The product is designed only for foot traffic and not vehicular or movement of machinery or equipment.
- Do not apply Dr. Fixit Cool Roof Coating over expansion or moving joints directly.
- To achieve the full proof waterproofing, parapet walls should be covered with Dr. Fixit Raincoat.
- Durability of coating is determined by the application process, the weather conditions during and after application, the suitability & quality of the workmanship and the total applied coating thickness.
- 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.
- Keep the material in close when not in use.
- To ensure recommended DFT use forced consumption method

#### Shelf Life & Storage

- Shelf life is 24 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 Coolroof Coating 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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**DISCLAIMER** The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.