



Dr. Fixit Heatshield

HEAT REFLECTIVE EXTERIOR COATING FOR ROOFS AND WALLS

Description

Dr. Fixit Heatshield is a white, UV-stable and weatherproof, elastomeric acrylic coating. It is used as a waterproofing and heat reflective coating on roofs and exterior walls resulting in substantial reductions in power consumption, due to its good SRI value.

Dr. Fixit Heatshield contains hollow glass micro-spheres. Within the dry film these form a closely packed airspace with low thermal conductivity leading to reduced heat transfer. This keeps buildings cooler by reducing the conduction of heat from exterior to interior spaces.

Dr. Fixit Heatshield has been tested to ASTM E-903; Standard Test Method for Solar Absorbance, Reflectance, and Transmittance of Materials Using Integrating Spheres.

Typical Applications

- Terraces and rooftops of buildings - cementitious, asbestos & metal surfaces.
- Cold storages, computer server rooms, electrical control panel rooms, etc.
- Industrial & godown shades with GI or asbestos roofs.
- Marble tiles.

Features

- Heat Insulation - Cool interiors, reduction in electrical consumption for air-conditioners.
- Solar Reflectance - 83.8% solar reflectance (ASTM E-903), re-radiated heat back to atmosphere.
- Toughness - Tough film withstands wind driven rain.
- Excellent UV and IR resistance - Enhanced environmental protection.
- Green Product - Energy saving.
- Algae and fungus resistance - long lasting film properties.
- Protective and waterproofing - Keeps the concrete slab surface temperature lower hence reduction in thermal stresses and subsequent development of cracks.
- Non-toxic water based system - Eco- friendly.
- User friendly - Easy to apply.
- Substrate temperature reduction up to 10°C** in the pick summer.

Packaging

1, 4 and 20 litre

Method of Application

1 SURFACE PREPARATION

- Prepare the surface thoroughly by cleaning, washing and removing dust, dirt, oil, grease and loose particles.
- Ensure that the roof slope is a minimum of 1 in 100 to enable water run off.
- In existing old terraces such as brick-bat-coba or screeds, the substrate must be checked for its soundness.
- Any previous growth of fungus & algae must be entirely removed by wire brushing and cleaning with water or by using additives to ensure complete eradication of algae / fungal growth.
- Damaged or hollow portions, sharp edges, etc. must be cut and repaired with a polymer-modified screed. Surface cracks must be filled with Dr. Fixit Crack-X or polymer-modified mortar in case of wider cracks.
- Bitumen based waterproofing treatments must be completely removed by mechanical scarification or by any other effective mechanical means.



2 APPLICATION FOR ROOF

- The surface to be treated must be in Saturated Surface Dry (SSD) condition prior to priming. Dilute 2 parts of Dr. Fixit Primeseal with 1 one part of water. This dilution will cover 7 to 8 sq.mt. Allow it to dry for 6 to 8 hrs.
- Apply a coat of Dr. Fixit Heatshield without any dilution, with specified spreading rate of 1 ltr per 3 m² and allow it to dry for 6-8 hrs.
- Apply second coat in perpendicular direction to the first coat with similar manners as first coat. Allow to dry for 6- 8 hrs.
- Do not subject the surface to any use for next 72 hrs and allow the coating to air curefully.

Note:

- Dr. Fixit Heatshield should never be diluted during application nor should it be overcoated.

Precautions & Limitations

- All corners, gaps, joints, protrusions & outlets shall be coated with two extra coats.
- Mix with a power assisted mechanical mixer before use. Mix until the coating is smooth and consistent.
- Do not apply during rains; substrate MUST be in SSD condition for application of primer.
- The product is designed only for foot traffic and not vehicular or movement of machinery or equipment.
- Do not apply Dr. Fixit Heatshield over expansion or moving joints.
- Use anti corrosive primer for metal sheets.
- Priming is not required for new galvanised Iron sheets.
- To achieve the full proof waterproofing, parapet walls should be covered with Dr. Fixit Raincoat / Raincoat Cool.
- Never dilute Dr. Fixit Heatshield with water for ease of application.
- Protect from rain and frost for 48 hours when apply at the recommended spread rate.
- Practical spreading rates will vary from quoted theoretical figures depending on substrate porosity, surface roughness, overspray losses, application methods and environmental conditions.
- Do not apply if the surface temperature is greater than 40°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 & always be stored in a cool place.

Preventative Maintenance

- Remove all debris (such as tree limbs, glass, bolts, nails, screws, metal shavings, plants etc or and any other material that may promote punctures or cuts of the system.
- Provide proper drainage. Keep the roof surface clean of leaves, paper and accumulated dirt at drain areas to avoid clogged drains.
- Coated surface must be inspected and cleaned bi-annually to maintain overall reflectivity properties , his will help maintain your overall aesthetic appearance and preserve your Heatshield coating due to environmental factors (such as accumulation of dirt, growth of mold, mildew or algae). Excessive scrubbing should be avoided.
- Suggested to apply one coat of Heatshield after the period of 5 years to maintain the reflective properties of coating.



Technical Information

PROPERTIES	SPECIFICATION	RESULTS
Appearance		Free flowing, homogeneous & uniform paste.
Colour		White
Solid content, %	ASTM D 1010	> 60
Sp. Gravity		1.01
Thermal conductivity		0.029 w/mK
Elongation, %	ASTM D 412	200
Abrasion resistance	ASTM D 968	No wear after 450 litres of falling sand
Wind driven rain resistance	TTC - 555	No moisture penetration after 24 hours.
Tensile strength @ 25°C, N/mm ²	ASTM D 412	0.276
Total solar energy rejected, %		94
SRI Value %	ASTM E-903	83.8
Accelerated weathering (2000 Hrs)	ASTM D 4587	Pass
Relative heat gain, Btu/hr/sq.ft		30

Theoretical Coverage

3 m² per ltr per coat.

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

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

Shelf Life

Shelf life is 24 months from the date of manufacturing if stored in original and unopened packaging in a cool dry place away from direct sunlight.

Health and Safety

This product is a water based emulsion of non-hazardous polymer. It is non-flammable and essentially non-toxic. Normal industrial hygiene procedures should be adhered to particularly when spraying and it is recommended that gloves and eye protection be worn. In case of skin or eye contact thoroughly irrigate with water and seek medical advice if any irritation develops or persists. In the case of accidental ingestion, wash mouth out with water and seek medical attention. Spillages should be cleaned up immediately with water as they will leave a film on evaporation. See MSDS for further information.

Other Products Categories available

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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.co.in

Dr. Fikit Advice Centre (Toll Free No.) 1800 209 5504

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