



Technical Data Sheet

Roof Shield-concrete

“Solar Reflective & Waterproofing Coating”

Surface Temperature Reduction upto 22°C during peak Summer

Description

Roof Shield-Concrete, an innovative Solar re-radiating compound, is formulated by us after thorough research and field testing.

Roof Shield-Concrete coating acts as Solar Reflective as well as Waterproofing layer. The active chemical components (including imported chemicals) in **Roof Shield-Concrete** yield a flexible water-proof coating and it minimizes the thermal build up. **Roof Shield-Concrete** coating acts like a shield to prevent Roof expansion and contraction besides reducing the chances of Roof Leakage and lasts long.

Roof Shield-Concrete is a mixture of high grade acrylic resin and fibre and inhibitors and additives. It dries by evaporation to yield a tough, flexible, non yellowing abrasion resistive and water repellent surface. For concrete or any cementitious substrate, **Roof Shield-Concrete** is applied directly to the substrate after proper mixing and dilution (without any primer coat) as base or first coat and then the second or final coat is applied after an interval of one to two hours.

Roof Shield-Concrete coated surface is highly solar reflective and also 100% water proof.

Technical Information

PROPERTIES		SPECIFICATION		RESULTS
	Comp A (Powder)		Comp B (Hardener	
Consistency	Powder		Liquid (Hardener)	
Color	White		Transparent -Milky	
Density (g/cm3)			1.04±0.2	
Solids Content %			>62	
Mixing Ratio	Comp A (Powder)	Comp B (Hardener)	1:1	
Idle Application Ambient temp.				
Drying Time to touch or apply Second Coat:			30minutes	
during Day time when exposed to Sun				
Full Curing Time			-72hours	
Performance of cured coating				
Lead Free Coatings	(<32mg/kg)		As per ASTM E 1613 -12	
Low VOC	(< 51g/Litre)		As per SCAQMD 304 -09	
(Volatile Organic Compounds)				
SRI (Solar Reflective Index) - 102			As per ASTM C 1549 - 09	
Light Reflectance Value(LRV- 90) As per BS- 8493:2008 + AI :2010				
UV Resistant			Yes,	
Fungus Resistant			Yes	
Weathering	After 5 years(practical)		no cracking, chalking and discolorization	
Elongation			> 150%	
Peeling Off	After 5 years(practical)		Free from Peeling Off	

Advantages

- * Highly Solar Reflective & Waterproofing Coating
- * Reduces Surface Temperature upto 22°C during noon in Peak Summer and Hence reduces room temperature substantially
- * Reduce the working hours of Air Conditioners & Similar Appliances.
- * Leads to Lower Power consumption thus saves money on energy bills
- * Minimizes thermal expansion & contraction of Building Roofs
- * High resistance to the effect of long term weathering, during in all climatic conditions including UV rays
- * Excellent bond to concrete, asbestos and other cementitious surfaces
- * Highly Abrasion resistance. No additional protective coating is required for foot traffic
- * Easy to apply with brush
- * Most Economical
- * Easy to re-coat the existing surfaces without removing the older layer

Uses

Roof Shield-Concrete

- * Highly Solar Reflective and Waterproofing Coating
- * Two in One Product
- * For Flat or Slope Roofs as well as Walls
- * For Concrete, Asbestos and all Cementitious substrates

Roof Shield- Concrete

General Information

Physical state / form.....Two Part (Powder+ Hardener)

Colour..... White

Odour.....Slight

Flammability of the Product: Non-flammable . Safe to Transport..:

If stored and handled in accordance with standard industrial practices no hazardous reactions are known

Packing

4kg, 12kg (Powder + Hardener)

Shelf Life & Storage

Shelf life is 12 months from the date of manufacturing in unopened condition.

Surface Preparation:

. Surface Preparation: On Concrete Roof or ordinary walls, surface must be free from dust, loose material, paint, oil, or any material which may impair adhesion. Mechanical means such as wire brushing can be used. Finally vacuum cleaning of all loose solids and liquids can be done if required. All surface cracks should be made wide at the surface and wet the surface of the crack with hardener by paint brush before applying Crack Sealant in a thick paste form. In order to obtain the protective properties of Roof Shield, it is important that the correct methods of application are observed. Use a short stiff brush preferably 120-150mm width and apply the mixed solution like any emulsion paint. Allow the coated surface to air cure for 3 days

Mixing Procedure for 4kg Packing

Roof Shield-Concrete -Powder should be emptied into a suitable container. Add portable water (about 1.5 litre for 4kg packing) Little more water may be added during application if the solution become thicker beyond brushable consistency due to higher atmospheric temp.) for 4kg packing (Powder * Hardener) and mix thoroughly with a mechanical mixer using a slow speed drill (500rpm) to form a paste form . The hardener component should be added gradually to the paste to avoid lump formation and mix for 2-4 minutes. Roof Shield-Concrete should be used after mixing within 2 to 3hours. Do not mix more material than can be used within the pot life. Keep stirring Roof Shield-Concrete solution during the application with brush or a rod. Do not over dilute the solution for ease of application.

Coverage

For Roof Shield-Concrete you will get about 225-250sq.ft for first coat and about 425-450 for the second coat per 4kg packing.

General Information

Flamability of the product; Non-Flammable.

Physical state / form : Two Part (Powder+ Acrylic based Hardener}

Colour: White

Odour : Slight

Stability and reactivity

Shelf Life : Shelf Life is 12months from the date of Manufacturing in unopened condition store in a cool & dry place.

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