

Mahaguard Solarshield - 700

Acrylic Based Heat & Solar Reflective coating for Wall & Roofs

Description

Mahaguard Solar Shield-700 is an acrylic base UV-reflective and weatherproof, elastomeric coating. It is used as a waterproofing and heat reflective coating on roofs and exterior walls. By using this coating reductions in power consumption, due to its good SRI value. It contains special additive which help to reduction in surface temperature. After coating substrate of buildings keep cooler by reducing the conduction of heat from exterior to interior spaces.

Features / Advantages

- Cool interiors, reduction in electrical consumption for air-conditioners.
- Solar Reflectance – 84.2% 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 to 14°C in the peak summer.

Typical application

- Terraces and rooftops of buildings - cementitious, asbestos & metal surfaces.
- Exterior RCC surfaces, masonry walls or facades
- Water storage tanks, Farm shades
- Cold storages, computer server rooms, electrical control panel rooms, etc.
- Industrial & godown shades with GI or asbestos roofs.
- Marble tiles

Technical Information

Sr.No.	Properties	Standards	Results
1	Appearance		Free flowing, homogeneous & uniform paste.
2	Color		White
3	Specific gravity	(IS 101/1964)	1.2 ± 0.1
4	% Solid Content	(IS 101/1964)	55 ± 2
5	% Elongation	(ASTM D 412)	> 200 %
6	Tensile Strength	(ASTM D 412)	> 1 N/mm ²
7	Total solar energy rejected, %		95
8	Abrasion resistance		Passes
9	SRI Value %	(ASTM E-903)	84.2
10	Application Temperature		+5°C to +30°C
11	Accelerated weathering (2000 Hrs)	ASTM D 4587	Passes
12	Temperature withstand capacity		-05°C to 80°C
13	Shore A hardness	(ASTM D 2240)	> 60

Methods of Application

Surface Preparation

All surfaces to be waterproofed should be sound, clean and dry. Concrete surfaces should have a light steel-trowel followed by a fine hair broom or equivalent finish which is dry and free of dust, oil and other contaminants. All high spots should be removed. Moss and laitance must be removed physically followed by treatment with fungicidal wash to kill any spores and inhibit further growth. After treatment wash down thoroughly with clean water and allow drying. All metal surfaces should be made clean of paint, oils, rust and other contaminants.

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Priming

Priming is required on concrete substrates. However, absorbent surfaces such as porous concrete sand/cement and cement boards will require sealing to prevent absorption of **Mahaguard Solarshield-700**. This should be done by using **Mahaguard Uniprime** as base primer. For non-porous substrate use **Mahaguard Uniprime-11** as primer at a consumption of 5-7m²/L.

Cracks

All shrinkage and non-moving structural cracks should be pretreated with a polymer modified mortar or PU sealants. Allow to cure overnight before general application.

Application

1. The surface to be treated must be in Saturated Surface Dry (SSD) condition prior to priming.
2. Apply a coat of Mahaguard Solarshield-700 without any dilution, with specified spreading rate of 1L per 4-4.5 m² and allow it to dry for 6-8 hrs.
3. Apply second coat in perpendicular direction to the first coat with similar manners as first coat.
4. 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 carefully.

Precautions & Limitations

- Do not apply when the ambient temperature is below 10°C or above 35°C.
- All corners, gaps, joints, protrusions & outlets shall be coated with two extra coats.
- Coated surface must be inspected and cleaned bi-annually to maintain overall reflectivity properties.
- This will help maintain your overall aesthetic appearance and preserve your 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 **Mahaguard Solarshield-700** after the period of 5 years to maintain the reflective properties of coating.
- 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 **Mahaguard Solarshield-700** over expansion or moving joints.
- Use anti corrosive primer for metal sheets.
- Never dilute **Mahaguard Solarshield-700** with water for ease of application.
- Protect from rain and frost for 48 hours when apply at the recommended spread rate.
- 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



Packing

1 L, 5 L & 20 L



Storage and Shelf life

Storage:

Store in a cool dry place under shed away from heat. Shelf life is One year in original unopened conditions.



Consumption

2-2.5 m²/L/ 2coats.

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



Cleaning of Tools & Equipments

Tools and equipment should be cleaned with water immediately after use.

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Ecology, Health and Safety

Health & Safety instructions, all chemicals should not come in contact with skin and eyes or be swallowed. Protective gloves and goggles should be worn. If contact with skin occurs, wash well with soap and water.

Eye contamination should be washed thoroughly with clean water and medical advice sought.

If swallowed seek medical attention immediately. Do not induce vomiting.

Disclaimer

The technical data contained herein is based on our present knowledge and experience and we cannot be held liable for any errors, inaccuracies, omissions or editorial failings that result from technological changes or research between the date of issue of this document and the date the product is acquired. Before using the product, the user should carry out any necessary tests in order to ensure that the product is suitable for the intended application. Moreover, all users should contact the seller or the manufacturer of the product for additional technical information concerning its use if they think that the information in their possession needs to be clarified in any way, whether for normal use or a specific application of our product.

Our guarantee applies within the context of the statutory regulations and provisions in force, current professional standards and in accordance with the stipulations set out in our general sales conditions.

The information detailed in the present technical data sheet is given by way of indication and is not exhaustive. The same applies to any information provided verbally by telephone to any prospective or existing customer.

Mahafix[®]
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