

## TECHNICAL DATA SHEET FOR

**SOLAREFLECT ROOF-SEAL WATERPROOFING****DESCRIPTION**

Solareflect Roof-Seal Waterproofing is a low VOC ready-to-use waterbased acrylic waterproofing membrane. It is suitable for external applications where a UV-stable and weather-resistant membrane is required.

Incorporated with COOL-TEC Technology, Solareflect Roof-Seal Waterproofing strongly reflects sunlight to keep surface cool. It reduces the amount of heat conducted into the building to provide cool roof effect.

**TYPE** : Water-based Acrylic

**COLOUR** : As per colour card

**FINISH** : Matt

**USES** : Waterproofing of concrete & metal roof and clay roof tiles

**FEATURES** :

- Single component, ready to use
- Solar reflective membrane
- Resistance to fungal & algal growth
- Good flexibility and able to bridge cracks
- Good weathering resistance
- Low VOC
- Non-toxic, does not contain lead, mercury and heavy metals
- Environmentally friendly paint certified under the Singapore Green Building Product Certification Scheme

**APPLICATION DATA**

**METHOD** : Roller or brush

**THEORETICAL COVERAGE** : 1.8 m<sup>2</sup>/ litre per coat (based on 300µm DFT) depending on surface texture, substrate porosity and method of application

**DILUTION** : No dilution is necessary for best performance

**RECOMMENDED FILM THICKNESS** : 300µm DFT per coat

**SURFACE PREPARATION** : Inspect roof conditions, where required, replace badly rusted metal or damage roof tile. For metal roofing, remove oil and grease or any forms of contaminants by solvent cleaning. Sanding should be done before any painting to improve adhesion. For Ferrous metal roofing with mill scale or rust, the substrate should be wire brushed or abrasive blasted and appropriately primed before any paint application. Ensure surface is clean, dry and stable using the following suggested surface treatments.

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- SURFACE PREPARATION** :
- **Moisture:** There must not be any water residue on the surface of the substrate. Moisture must be <4% (Sovereign moisture master) before application
  - **Unstable matter:** Remove loose bonding film, dirt, peeling paint, etc by high-pressure water jet wash or mechanical means such as power brush or scraper, whichever is suitable.
  - **Contaminants:** Remove dust and foreign matter by cleaning with damp cloth. Remove oil or grease using solvent or mild detergent. Allow surface to dry
  - **Fungus and Algae:** Wash the affected area to remove unstable matters and micro-organisms. Apply Anti-Fungus Solution and leave on for at least 2 hours
  - **Hairline cracks:** Fill cracks with suitable exterior grade water-resistant putty or filler
- DRYING TIME** : Hard Dry - 3 hours max at 30°C
- OVERCOATING TIME** : Minimum 3 hours based on normal conditions
- WATERPROOFING PAINTING SYSTEM** :
- A 5-layers waterproofing system inclusive of primer. Firstly, ensure the surfaces are apply with recommended primer depending on the type of surfaces.  
Apply the 1<sup>st</sup> bodycoat of Solareflect Roof-Seal Waterproofing and whilst the membrane is still wet, lay and press in the reinforcing fibremesh and allow to dry for at least 3 hours. Subsequently, apply the 2<sup>nd</sup> bodycoat to completely wet and fill the fibremesh. Finish off the system with a final coat of membrane
- RECOMMENDED PRIMER**
- New surfaces:**
- Masonry** - 1 coat of Roof-Seal Primer
- Ferrous Metal** - 1 coat of Crystalux A/C Primer
- Non Ferrous Metal-**  
Apply 1 coat of Hi-Vinyl 1102 Etching primer followed by 1 coat of Crystalux A/C Primer before application of waterproofing system
- Repaint metal surfaces:**  
Ferrous and non-ferrous metal roofing with underlying rusting issue shall be treated accordance to recommended surface preparation as above. Both treated bare ferrous and non-ferrous metal shall spot prime with 1 coat of Crystalux A/C Primer and 1 coat of Hi-Vinyl 1102 Etching primer respectively before application of waterproofing system

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**CLEANING** : All equipment should be cleaned with water immediately after use

### PERFORMANCE DATA

(Based on white colour)

Test Items	Test Methods	Results
Resistance to water penetration (0.2 kgf/cm <sup>2</sup> for 12 hours)	Adopted DIN1048 Part 5: 1991	No penetration
Elongation at break	ASTM D412 : 1992	>300%
Tensile Strength (without fibremesh)	ASTM D412 : 1992	>2MPa
Tensile Strength (with fibremesh)	ASTM D412 : 1992	>10 MPa
Adhesion Strength	ASTM D4541	> 0.5 MPa
Shore A Hardness	ASTM D2240	>70
Crack Bridging	ASTM C836	- No crack at 2mm width - No crack after 10 cycles of opening and closing at 1mm width
Water vapor transmission	ASTM E96	>8 g/24h/m <sup>2</sup>
QUV Accelerated Weathering (1000 cycles)	ASTM G154 (Cycle 1)	No defects (Grey scale 4.0)

### GENERAL INFORMATION

**SOLID CONTENT** : 66 ± 2% (Based on White)

**SPECIFIC GRAVITY** : 1.34 ± 2%

**PACKING** : 20 litres

**STORAGE** : Store in a tightly sealed container in a cool dry place.

**SHELF LIFE** : Up to 24 months in a tightly sealed container.

**PRECAUTION** : Ensure good ventilation during application and drying of paint. Avoid direct contact with sensitive skin. Use appropriate personal protective equipment.

Refer to the product Safety Data Sheet for more information.

The information given is intended to give a description of the product performance under specific test conditions. Nevertheless, we cannot assume any responsibility for the use of it since circumstances under which the products are applied in practice are subjected to many variations. We reserve the right to alter the given data without notice.

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