

TECHNICAL DATA SHEET FOR

NIPPON SOLAREFLECT

- DESCRIPTION** : Nippon Solareflect is an elastomeric cool paint system that reflects a large amount of solar energy from the sun. It can reflect more solar energy and reduces the surface temperature by up to 5°C*. This special property can lower heat build-up and subsequently decreases the energy needed for air-conditioning. The Nippon Solareflect technology enables us to offer a wide range of fashionable colours for design and decoration, now houses don't have to be white to be cool!
- TYPE** : Elastomeric acrylic-based coating system formulated with Solar reflective pigment, for exterior use.
- COLOUR** : A wide range of fashionable pastel, medium and dark colours as per colour card
- FINISH** : Low Sheen
- USES** :
- Premium high performance coating system for use on external masonry wall surfaces such as cement, plastered wall and brickwork.
 - Warehouse, factory and cold storage room.
- FEATURES** :
- High solar energy reflection, less heat build-up results in lesser power consumption for air-conditioning – energy saving
 - Excellent weather resistance
 - Long lasting colours
 - Excellent dirt pick-up resistance
 - Elastic and flexible – covers hairline cracks
 - Excellent washability
 - Excellent resistance to alkali and efflorescence
 - Non-toxic, does not contain lead, mercury and heavy metals
 - Anti-fungus and anti-algal properties
 - Environmentally friendly paint certified under the Singapore Green Building Product Certification Scheme

*Temperature reduction varies from colour to colour

APPLICATION DATA

- METHOD** : Brush, roller and airless spray
- THEORETICAL COVERAGE** : 10–12 m²/litre (based on 40 microns DFT)
- DILUTION** : No dilution is necessary for best performance
- REQUIRED THICKNESS** : 40 to 50 microns (Dry Film Thickness per coat)

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- SURFACE PREPARATION** : Ensure surface is clean, dry and stable using the following suggested surface treatments:
- **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 Nippon 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 : Surface Dry - 30 minutes at 30°C
Hard Dry - 2 Hours at 30°C

OVERCOATING TIME : 2 hours based on normal conditions

- RECOMMENDED PAINTING SYSTEM** :
- **New or Unpainted Surfaces:**
 - 1 coat Nippon Solareflect Sealer-Primer White (40-50 microns DFT)
 - 2 coats Nippon Solareflect (40-50 microns DFT per coat)
 - **Previously Painted Surfaces:**
 - 1 coat of Nippon Vinilex 5170 Wall Sealer (20-30 microns DFT)
 - 2 coats Nippon Solareflect (40-50 microns DFT per coat)

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

PERFORMANCE DATA

Check Items	Specification	Method
Alkaline Resistance	Passed	SS 5: Part G2
Accelerated Weathering	No blistering, cracking nor chalking	SS 5: Part G4
Algal Resistance	Passed	SS 345: Appendix B
Adhesion Test (X-cut)	Passed	ASTM D3359
Tensile Strength	Min. 1.5 N/mm ²	ASTM D412 (SS 500: 2002)
Elongation at Break	Min. 100%	ASTM D412 (SS 500: 2002)
Water Absorption	Max. 170 ml water/m ² /24 hours	SS 500: 2002 Annex A
Water Vapour Transmission	Min. 80 g/m ² /24 hours	ASTM D1653 (SS 500: 2002)
Dirt Pick Up Resistance (3 months natural weathering)	Before washing: Min. 92% After washing: Min. 95% Water spotting: Less than 10%	ASTM D1014 (SS 500: 2002) ASTM D3719 (SS 500: 2002) ASTM D610 (SS 500: 2002)

NIPPON SOLAREFLECT**GENERAL INFORMATION**

SOLID CONTENT	:	60 ± 2% by weight (based on white colour)
SPECIFIC GRAVITY	:	1.36 ± 2% kg/litre (based on white colour)
PACKING	:	5 litres & 20 litres
STORAGE	:	Store in a tightly sealed container below 30°C.
SHELF LIFE	:	Up to 24 months in a tightly sealed container.
PRECAUTION	:	Avoid painting when the temperature is below 10°C or when the humidity is over 85%. Ensure adequate protection and avoid direct contact on sensitive skin, eye, etc. 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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