



TECHNICAL DATA SHEET

PRODUCT NAME

Series 5 Silicate Topcoat

DESCRIPTION

This product is an inorganic silicate functional coating developed based on advanced material science and thermal radiation principles. It does not require additional electricity or refrigerants. By leveraging its unique material structure and optical properties, it efficiently reflects sunlight and dissipates surface heat as infrared radiation into outer space. The porous nanostructure of the inorganic radiative cooling topcoat enables more efficient cooling, providing an energy-efficient and environmentally friendly temperature control solution for buildings, industrial facilities, cold chain transportation, and other fields.

TYPE

Water based silicate paint

COLOUR

As per colour card

USAGE

Widely applicable in building energy efficiency, data centers, grain storage, petrochemical storage tanks, power equipment, cold chain logistics, and new energy sectors where temperature-sensitivity or cooling/energy savings are required.

Features

- Efficient Cooling significantly reduces surface temperature, with surface temperatures 3-10 °C below ambient temperature in summer (comparison based on same color).
- Superior Weather Resistance, UV-resistant, excellent anti-yellowing properties, maintains cooling effect for over 7-10 years outdoors.
- Eco-friendly, free of biocides, odorless, and free of heavy metals.
- Low Carbon Emissions, no electricity consumption and reduces greenhouse gas emissions, aligns with global low-carbon development.
- Easy Application, can be applied by brushing, spraying, or rolling.

PRODUCT DATA

Packaging size	5 Kg and 20 Kg containers
Specific gravity	1.6 ± 0.1 kg/litre
VOC	<2 g/l
SHELF LIFE	12 months from the production date

APPLICATION DATA

The product can be applied by



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Roller, brush, airless spray

Stir the paint thoroughly before application and apply immediately after mixing.

SURFACE PREPARATION

Remove dust, oil, and loose particles from the surface. Rinse with water and allow it to dry naturally. Repair cracks and holes with cement mortar and sand smooth.

APPLICATION CONDITIONS

Avoid application in humid or cold weather (temperature below 5 °C or above 35 °C, relative humidity above 85%), as it may affect the coating performance. Ensure proper drying time between coats. Applying the next coat too soon may cause slow drying, wrinkling, bubbling, and poor water resistance and adhesion.

DRYING TIME

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly.

1. In case of multiple coat application, drying time will be influenced by the number and sequence and by the total thickness of previous coats applied
2. The surface should be dry and free from any contamination prior to application of the subsequent coat.

RECOMMENDED COATING SYSTEM AND THEORETICAL COVERAGE

Coating Step	Coating Name	Number of Coats	Practical Paint Consumption (m ² /KG per coat)
Primer	PasteCool® Series 2 Silicate Primer	2	6-8
Topcoat	PasteCool® Series 5 Topcoat	1	6-7

Note: Evaluation based on smooth surface, dry film thickness ~50 micron.

CLEANING INSTRUCTIONS

Clean all tools with water immediately during pauses or completion of coating.

PRECAUTIONS

Wear protective gloves, masks, and goggles during application. Avoid skin and eye contact. In case of contact, rinse immediately with plenty of water and seek medical attention if necessary.

STORAGE

Store in a cool, dry, and well-ventilated place at 5-27 °C, away from direct sunlight and freezing temperatures. Seal tightly to prevent moisture loss.



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SAFETY INFORMATION

Before using this product, always read the safety information on the packaging and in the Safety Data Sheet (SDS)

- **Ventilation:** Ensure good ventilation during the application and drying to minimize inhalation
- **Personal protection:** Avoid direct contact with skin and eyes. Wear suitable personal protective equipment (PPE) such as gloves, goggles and, if spraying, a respirator.
- **First aid:** If paint contacts skin, wash immediately with soap and water. If it enters the eyes, rinse thoroughly with clean water and seek medical attention.
- **Fire safety:** For solvent based or flammable products, keep away from naked flames, sparks, welding operations, and smoking areas.
- **Spillage:** Clean up spills promptly using appropriate cleaning agents.
- **Suitability:** If unsure about the product's application or compatibility, consult the manufacturer for guidance.

DISCLAIMER

The information in this data sheet is given to the best of Entropy lab's knowledge, based on laboratory testing and practical knowledge. Users may consult with Entropy Lab on the general suitability of the product for their needs and specific application practices and as such, products are often used under conditions beyond Entropy Lab control. Entropy Lab cannot guarantee anything but the quality of the product itself. In line with Entropy Lab policy for continuous development, Entropy Lab reserves the right to modify the product and the information in this data sheet without prior notice. It is the user's responsibility to check with Entropy Lab for the latest version of this data sheet.

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