



PasteCool® Coolguard Organic Radiative Cooling Primer

Product Overview

This product is a specialized primer for acrylic radiative cooling coating with extremely high infrared reflectivity. It reflects longer-wavelength near-infrared rays that penetrate the topcoat, enabling a thinner composite coating system to reflect the entire solar spectrum, including ultraviolet, visible, and near-infrared light. When used in conjunction with radiation cooling topcoats, the coating achieves extremely high solar reflectance and radiates heat into outer space with high emissivity. Applied on building roofs, walls, or outdoor equipment surfaces, it can reduce surface temperatures by 3~8 °C below ambient temperatures even during hot summers, lowering air conditioning energy consumption, alleviating energy shortages, reducing carbon emissions, and promoting sustainable development.

Product Features

1. Extremely high near-infrared reflectance and heat radiation capabilities.
2. Excellent adhesion to various substrates such as concrete and metal.
3. Superior alkali resistance and weather resistance.
4. Strong hiding power and excellent water resistance.
5. Easy to apply, water-based, and environmentally friendly.

Scope of Application

When used in combination with PasteCool® Coolcoat radiative cooling topcoat and PasteCool® Protector radiative cooling topcoat varnish or water-based fluorosilicone waterproofing agent, it is widely applicable in energy-saving

applications such as building energy efficiency, communication data centers, grain storage, petrochemical storage tanks, power equipment, cold chain logistics, and new energy sectors where cooling and energy efficiency are required.

Application Guidelines

1. Substrate Preparation: Remove surface dust, oil, and loose materials. Rinse with water and allow to dry naturally. Repair cracks and holes with cement mortar, then sand the surface to achieve a rough texture.
2. Application Methods: Application Methods: Rolling, brushing, or airless spraying. Stir thoroughly before application.
3. Coating System and Number of Coats:

Coating Step	Coating Name	Number of Coats	Paint Consumption (m ² /KG per coat)
Primer	PasteCool® Coolguard Radiative Cooling Primer	2	6-8
Topcoat	PasteCool® Coolcoat Radiative Cooling Topcoat	1	6-8
Topcoat Varnish	PasteCool® Protector Radiative Cooling Topcoat Varnish (Film-forming)	1	10~12
	FSK900 Water-based Fluorosilicone Waterproofing Agent (Non-film-forming)	1	16~20

Note: The topcoat varnish can be chosen as either film-forming or non-film-forming. The film-forming type offers better anti-fouling properties, while the non-film-forming type provides better anti-yellowing performance.

4. Cleaning: Clean all tools with water immediately after pauses or completion of coating.
5. 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.

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.

Packaging and Storage

Available in 10 L and 18 L containers. Store in a cool, dry, and well-ventilated place at 5~35 °C, away from direct sunlight and freezing temperatures. Seal tightly to prevent moisture loss. Shelf life: 12 months from the production date.