PasteCool® Coolguard Roof Elastic Acrylic Radiative Cooling Primer

Product Overview

This product is a specialized primer designed for Elastic Acrylic Radiative Cooling Primer with extremely high infrared reflectivity. It reflects longer-wavelength near-infrared light that passes through the topcoat, enabling even a relatively thin composite coating system to reflect the full spectrum of solar radiation — including ultraviolet, visible, and near-infrared light. When used together with a radiative cooling top coating, the resulting coating exhibits exceptionally high solar reflectance and effectively radiates heat into outer space with high emissivity. Applied on building roofs, walls, or outdoor equipment surfaces, the coating can maintain surface temperatures 3－8°C lower than the ambient temperature even in hot summer conditions. This reduces air-conditioning energy consumption, alleviates energy shortages, lowers carbon emissions, and contributes to sustainable development.

Product Features

1. Excellent near-infrared reflectivity and radiative cooling performance.
2. Excellent Penetration and Adhesion: Strong adhesion to various substrates such as concrete and metal.
3. Outstanding stain resistance and weather durability.
4. Superior crack resistance and anti-cracking performance.
5. High Coverage and Excellent Water Resistance
6. Eco-friendly: Easy application with water-based, environmentally friendly formulation.

Scope of Application

Can be used in combination with PasteCool® Radiative Cooling Interface Agent, Elastic Acrylic Radiative Cooling top coating, and Acrylic Radiative Cooling Clear coating. It is widely applied in areas requiring cooling and energy saving, such as building energy conservation, communication data centres, grain storage, petrochemical storage tanks, power equipment, cold-chain logistics, and new energy facilities—particularly suitable for building roof surfaces.

Application Guidelines

1. Surface Preparation: Remove dust, oil, and loose materials from the surface. Rinse with clean water and allow to dry naturally. If there are cracks or holes, repair and level them with cement mortar. Sand the surface to achieve a slightly rough texture.
2. Application Methods: Rolling, brushing, or airless spraying. Stir the paint thoroughly before application and apply immediately after mixing evenly.
3. Coating System and Number of Coats:

Coating Step	Coating Name	Number of Coats	Paint Consumption (m²/KG per coat)
Sealer (Optional)	PasteCool® SP-01	0/1 (Optional)	8-10
Primer	PasteCool® Coolguard Roof	2	6-8
Topcoat Varnish	PasteCool® CoolcoatRoof	1 – 2	5-7
Cear Coating (Optional)	PasteCool® Protector	0/1 (Optional)	8-10

4. Cleaning: Clean all tools with water promptly during pauses or after application.
5. Application Conditions: Avoid application in humid or cold weather (temperature below 5 ℃ or above 35 ℃, relative humidity above 85%), as it may affect the coating performance.
6. Recoat Interval: The recoat interval must be strictly controlled. Apply the next coat only after the previous layer has reached the specified recoat time. Applying the next coat too early may lead to issues such as slow drying, wrinkling, blistering, poor water resistance, and weak adhesion.

<u>Precautions</u>

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.

<u>Packaging and Storage</u>

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