PASTECOOL™
Passive Cooling Paint System

# PasteCool® Protector Organic Cooling Clear Coat

## Product Overview

This product composes of special pure acrylic polymers and nano inorganic silica. It is specifically designed for use as a topcoat varnish for use with PasteCool® radiative cooling coatings. The product enhances the water resistance, stain resistance, and chemical resistance of radiative cooling coatings without reducing their reflectivity, emissivity, or cooling efficiency. At the same time, it provides excellent weather resistance, anti-yellowing performance, and super-hydrophilic self-cleaning properties, enabling the coating to maintain extremely high solar reflectivity and long-term energy-saving performance.

## Product Features

1. Waterproof and stain-resistant, offering full protection.
2. Excellent weather resistance, non-yellowing.
3. Self-cleaning effect, strong dirt resistance, ensuring long-lasting cooling performance.
4. Film-forming waterborne varnish.

## Scope of Application

When used in combination with PasteCool® Coolcoat radiative cooling topcoat and PasteCool® Protector 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.

## Technical Parameters

| Compliance | Standard Requirement |
|---|---|
| Topcoat Varnish for Architectural Coatings | HG/T 5056-2016 |
| Limits of Harmful Substances in Interior Wall Coatings | GB 18582-2020 |

## Application Guidelines

1. Application methods: Roller coating, brush coating, or airless spraying. Stir thoroughly before application and apply immediately after mixing.
2. 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: Depending on requirements, either the film-forming or non-film-forming type can be selected. The film-forming type provides better stain resistance, while the non-film-forming type offers superior anti-yellowing performance

3. Cleaning: Clean all tools promptly with clean water during breaks or after finishing the application.
4. Application conditions: Do not apply in damp or cold weather (below 5°C or above 35°C, or relative humidity >85%), otherwise the expected performance may not be achieved. Strictly control recoating intervals—apply the next coat only after the specified recoat time. Insufficient intervals may cause slow drying of the undercoat, wrinkling, blistering, poor water resistance, or poor adhesion.

## Precautions

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

## Packaging and Storage

Available in 5 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.