

005-604 Electricity-Free Cooling Waterproof Coating

Technical Data Sheet (TDS)

Product Introduction

005-604 Electricity-Free Cooling Waterproof Coating is based on the core principle of radiative cooling — it reflects solar radiant heat and cools without electricity, making it energy-saving and environmentally friendly. The product integrates waterproofing, thermal insulation, and protective functions in one: it offers excellent anti-seepage and waterproofing performance, along with outstanding weathering and anti-aging resistance to withstand long-term outdoor exposure. It has a wide range of applications and can be used on building roofs, warehouse canopies, open-air canopies, and other substrates, providing a one-stop solution for both waterproofing and cooling needs. It is a premium material choice for outdoor substrate protection.

Product Specifications

Item	Value	Standard
Appearance	White viscous liquid	Visual inspection
Viscosity	90~110 KU	GB/T 9269-2009
Solid content	≥65%	GB/T 16777-2008
pH value	8~10	GB/T 1717-2022
Relative density	1.4~1.6	GB/T 6750-2019
VOC content	<80 g/L	GB 30981.1-2025

Technical Specifications

Item	Value	Standard
Surface-dry time	≤4 h	GB/T 16777-2008
Tensile strength	≥1.2 MPa	JC/T 864-2023
Bond strength	≥1.4 MPa	GB/T 16777-2008
Artificial weathering resistance	≥2745 h	GB/T 18244-2022

Product Features

- Waterproof & anti-seepage: forms a dense, flexible film that seals capillary pores and blocks rainwater penetration; resists cracking and water-blistering, making it suitable for open-air roof waterproofing with long-lasting resistance to sun and rain.
- Weathering durability: excellent resistance to UV aging, water, and alkali.
- Easy application: can be applied by spraying, roller coating, and other methods, making construction convenient.
- Environmentally safe: water-based system, low VOC content, free of heavy metals.

Health, Safety & Environment (HSE)

- Construction protection: wear protective goggles, gloves, and a mask during application, and ensure good ventilation on site.

- Fire safety: this product is a water-based coating and is non-flammable.
- Waste disposal: waste generated during construction (such as paint residue and empty containers) should be collected and handed over to a qualified waste-disposal unit in accordance with local environmental regulations.

Construction Guide

- Substrate preparation: use a wire brush or broom to remove laitance, oil stains, and other debris from the substrate surface. Sand down raised areas; repair recessed areas with polymer cement mortar or specialized putty to level the surface. If the mortar strength is too low, use 005 Penetrating Crystalline Interface Agent to reinforce the substrate.
- Viscosity adjustment: dilute with 0~5% water as needed for the application process to achieve suitable viscosity. Stir thoroughly and let stand for 10~15 minutes before use;
- Coating application: apply 2~3 coats, with a theoretical coverage rate of approx. 2 kg/m²;
- Note: this section is a summary; please refer to the corresponding Construction Guide for detailed steps.

Packaging & Storage

- Packaging: 5 kg, 20 kg, or 25 kg.
- Storage: store in a cool, dry place at 5°C~35°C.
- Shelf life: 24 months (in original sealed packaging).

Attention

- This technical data is based on our current knowledge and experience and is accurate and reliable. However, since application conditions vary and are complex, the user is responsible for testing and confirming the suitability of the product before use.
- We assume no legal liability arising from this information.
- Product specifications are subject to change without further notice.

Contact Us

Address: 1310 International Business Center, 38 Qingnian Road, Yuzhong Dist., Chongqing, 400010, China

- Official Web: <https://nanocoat.net>
- Email: sales@nanocoat.net

