

# NanoTech Materials Cool Touch Coat

## Optimized Thermal Insulator

### **DESCRIPTION:**

NanoTech Materials Cool Touch is a high-performance, elastic, polymeric coating formulated with NanoTech's patented additive used to provide high reflectance and high emissivity values as well as its low thermal conductivity constant. Our coating is an insulator that is optimized for use in areas with persistent condensation, and areas where high temperature asset's surface need to be lowered to ambient conditions. With the triple properties acting as a high temperature thermal barrier, this product is highly efficient. Our insulator coating can eliminate or reduce condensation to the substrate's surface while protecting the asset from CUI.

### **APPLICATION:**

Our insulator coating exhibits excellent vertical hangability and dry times will be influenced by humidity and temperature conditions. There is not a maximum or upper limitations to this product. Product can be applied in successive coats to achieve insulation ability. Cure times will vary based on humidity and atmospheric conditions.

#### Application Temperature:

- 40°F (4°C) Minimum
- 120°F (49°C) Maximum (surface, ambient, material)
- Ensure surface temperature is at least 5°F (3°C) above the dew point prior to employing coatings. A maximum relative humidity of 70% must be respected.

#### Application Equipment:

- AIRLESS SPRAY
  - Minimum Pressure 3000psi
  - Minimum 2.5 GPM operating equipment
  - Tip Sizes: .041" or larger
  - Remove all filters.
  - May reduce product with water not to exceed 5% by mass.
- AIR ASSISTED
  - Graco GTX 2000 or larger
- AIRLESS SPRAY
  - Texturizer models
  - Minimum 3.0 GPM operating equipment
  - Graco STX Air Asst Spray Gun
  - Hose 1" Diameter up to 50 feet

- Remove all the filters.
- May reduce product with water not to exceed 5% by mass
- HANDHELD HOPPER
  - A handheld texture spray gravity feed hopper can be used on diameter pipes 4 inches in diameter and smaller.
- BRUSH
  - A synthetic bristle brush may be used to apply coatings. May reduce product with water not to exceed 5% by mass.
- ROLLER
  - 3/8" nap woven roller

### CLEANING:

Clean equipment with water thoroughly before and after each use. For spills and spatters, immediately clean with warm water or a surfactant. Follow local and federal laws on proper disposal.

### TECHNICAL DATA

Color	White, Various
Finish	Flat
Solids by Volume	75%
Recommended Film Thickness	50-200 mils (1-6 mm) WFT 40-200 mils (1-5 mm) DFT
Theoretical Coverage Rates	150 ft <sup>2</sup> per 5 gal @ 40 mils DFT Recommended DFT - No Loss Factor
VOCs	Non-reportable VOCs
Features	Water Based; Faster Cure Times; Eliminates Corrosion Under Insulation; Eliminate Condensation; Extremely Low Thermal Conductivity; High Emissivity and Reflectance; Excellent Vertical Hangability
Primer	No primer needed over non-ferrous materials. Primer required over carbon steel substrates to prevent corrosion. Bonds to generic coatings such as epoxies, alkyds, acrylics and zinc rich primers.
Topcoat	Consult NanoTech Materials Tech Service
Storage Temperature	40°F (5°C) Minimum 100°F (38°C) Maximum Do not subject the product to freezing conditions.
Mixing Instructions	Agitate well using a helicoidal paddle at high rpm prior to use for at least 10 minutes.

Component	Single (One)
Shelf Life	12 Months
Solids by Weight	65%
Weight per 5 gallon	26 lbs. (11.79 kg.)
Weight per drum	277 lbs. (125.65 kg.)

### RECOMMENDED USES:

Formulated to use with primers on carbon steel surfaces or self-priming on non-ferrous substrates (Stainless Steel, Aluminum, etc.)

### SURFACE PREPARATION & TEMPERATURE:

Surface Preparation: Ensure surface temperature is at least 5°F (3°C) above the dew point prior employing cleaning methods.

Ferrous: Surface should be dry and free from any foreign matter. Utilize AMPP surface preparation standards in accordance with NACE 1-3 (SSPC SP-5, 6 or 10) and immediately prime surfaces to protect against corrosion.

Non-Ferrous: The coating is self-priming and can be applied directly to the surface. Ensure the surface is clean, dry and free from any foreign matter.

### PERFORMANCE CHARACTERISTICS:

<b>Corrosion Weathering/Neutral Salt Spray</b>	ISO 9227:2017	ISO 4628 & ISO 12944-6:2018 Rating 0; No blistering; rusting, cracking or flaking.
<b>Dry Heat Resistance</b>	ASTM D2794	302°F (150°C)
<b>Moisture Condensation Resistance</b>	ISO 6270-1:2017	ISO 4628 Rating 0; No blistering; rusting, cracking or flaking.
<b>Personal Protection</b>	NACE TM2143	Minimum 40 mils DFT

## RECOMMENDED SPREADING RATES:

	Minimum	Maximum
<b>Wet Mills (Microns)</b>	25 (635)	250 (6350)
<b>Dry Mills (Microns)</b>	20 (508)	200 (5080)
<b>Coverage Sq ft/gal (m<sup>2</sup>/L)</b>	6 (0.147)	60 (1.47)

## DRYING/CURING/RECOAT SCHEDULE:

Temperature	To Touch	To Handle	To Recoat*	To Topcoat	To Cure*
121°F (50°C)	20 min	4 hours	45 min	1 day	1 day
100°F (38°C)	30 min	6 hours	1.5 hours	2 days	2 days
77°F (25°C)	45 min	8 hours	5 hours	2 days	2 days
40°F (4°C)	4 hours	24 hours	10 hours	3 days	4 days

\*Curing schedule is based on **50 mils WFT @ 50% Relative Humidity applied in a single (per) coat**. Recoat times provided based on overcoating with itself.

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Last Updated: August 2024