

# Product Data Sheet

NSF Registered for incidental food contact surfaces. Reg #138638



Thermal Insulation  
Mold Resistance  
Corrosion Prevention  
Personnel Protection  
In-Service Application  
Long-Term Durability

## OVERVIEW:

NSF registered thermal insulation, mold resistant, corrosion prevention and moisture resistant coating. Sustainable coating which reduces energy costs and carbon emissions. Indoor and outdoor use. Metal or non-metal surfaces up to 256F (125C).

Clear, nanotechnology-based insulation and mold resistant coating for food sensitive areas. Long-term performance and durability resulting in lower maintenance costs and longer asset life; reduces asset turnover and waste. Color: Translucent (Clear Coat) with matte finish; allows visual inspection of substrate.

## ADVANTAGES:

**THERMAL PERFORMANCE:** Excellent thermal insulation performance to maximize control of heat loss, contributing to reduced energy costs. Resistant to moisture infiltration, for consistent thermal performance over time.

**MOLD RESISTANCE:** Resistant to growth of mold and mildew. Coating has been tested to ASTM D5590 and ASTM G21 for mold resistance. Reduces chance of food contamination.

**CORROSION PREVENTION:** Superior corrosion prevention of surfaces. Coating forms a tight bond with the substrate and eliminates issues with corrosion under insulation (CUI). Clear finish allows visibility of substrate through the insulation coating.

**ENVIRONMENTALLY FRIENDLY:** Non-toxic, non-flammable, water-based coating is low VOC, low odor, and environmentally friendly. Nansulate® coatings are a sustainable, green technology.

**SURFACE TEMPERATURE REDUCTION:** Insulates and reduces surface temperatures, making it an excellent safety coating to use for lowering hot surfaces to OSHA safe-touch levels.

## CONTACT/ORDERING:

**Phone: 800-767-3998 or +1 239-254-0346**

**Online: [www.nansulate.com](http://www.nansulate.com)**

## USES:

- ✓ Process Pipes
- ✓ Tanks
- ✓ Industrial Ovens
- ✓ Cookers
- ✓ Food Storage Silos
- ✓ Pasteurization Equipment
- ✓ Mixing and Heating Vessels
- ✓ Safe Touch Application on Hot Equipment
- ✓ Valves, Joints and Other Formerly Difficult To Insulate Areas
- ✓ Other Food Processing Equipment



## BENEFITS:

- ✓ Energy savings
- ✓ NSF registration for food sensitive areas
- ✓ Mold resistant, without use of harsh chemicals
- ✓ Can be applied while in service
- ✓ Cost effective, with long-term savings and short payback period (Reported at 6-18 months)
- ✓ Non-toxic, water-based, low VOC
- ✓ Excellent corrosion prevention
- ✓ Outstanding durability and weathering
- ✓ Easily applied by brush, roller or paint sprayer.
- ✓ Ideal for equipment that is not easily insulated by rigid or fibrous insulation
- ✓ Space saving – each coat is applied at 4 wet mils; a 10-coat application will dry to 20 dry mils
- ✓ Can be painted over
- ✓ Provides protection from harmful UV rays
- ✓ Low odor
- ✓ Easy cleanup with soap and water

## Gold Standard Application Program

With your order, we provide you with personalized support to ensure the success of your Nansulate® application. Contact us to learn more!

**PRODUCT DATA:**

Theoretical coverage rate for One Gallon (3.79 Liters)	Yields approximately 4 mils/100 microns wet film thickness (1 coat) over 450 square feet (42 square meters) of surface area, depending on surface.
Coverage rate for typical application thickness for One Gallon (3.79 litres)	Yields approximately 40 mils/1000 microns wet film thickness (10 coats) over 45 square feet (4.2 square meters) of surface area, depending on surface.
Typical applied coat thickness	4 wet mils (100 microns) per coat
Typical dry film thickness (DFT) of 1 coat	2 mils (50 microns) DFT
Typical application thickness (DFT) of 6-10 coats	12-20 mils (300-500 microns) DFT
Typical touch dry time for 1 coat	1 hour
Typical hard dry time	72 hours
Typical full cure time	30-90 days, dependent upon DFT and environmental variables
Shelf life	2 years, from date of manufacture
VOC content	100 g/L (calculated)
Viscosity	3500 to 4000 (cps)
Cross Hatch Adhesion - ASTM D-3359	0% 5B, edges remain smooth, no flaking
Pull Apart Strength - ASTM D-4541	2400-2450 psi
Flame Spread/Smoke Developed - ASTM E84	Class A
U/V Exposure	Passed 2000 hours
Mold Resistance - ASTM D5590 & ASTM G21	Zero or minimal growth
Accelerated Salt Fog Corrosion Test (GM9540P)	Completed 24 cycles, no rust present
Permeability	5 perms/inch @ 23 deg C.
Thermal resistance (UNI EN ISO 8990:1999)	28.98% increase in thermal resistance
Thermal transmission (UNI EN ISO 8990:1999)	34.8% decrease in thermal transmission, measured in watts

*(As tested at a 3-coat coverage on 8 cm cement wall section with plaster on both sides)*

**NSF REGISTRATION:**

Registered in Non-food compounds program, R-2 category by NSF International. Registration No. 138638  
Acceptable for use on structural surfaces or surfaces with the possibility of incidental food contact.

**LIMITATIONS:**

- Do not use as a final floor covering.
- Do not install where long-term submersion in liquid or continuous exposure to moisture is a possibility.
- Do not install over poor surfaces, such as those with flaking paint, grease or other contaminants.
- Do not allow application to be subject to rain or condensation for at least 72 hours.
- Do not allow application to be subject to freezing temperatures during first 30-60 days.
- Do not apply full recommended thickness on surfaces over 212F/100C. Use "Hot Surface" Application; refer to Application Handbook for further details.
- \*Do not rely on visual measurement for coating thickness. Always use a wet film thickness (WFT) and/or dry film thickness (DFT) gauge in several areas to ensure proper application DFT. See Application Handbook for further details.

**NOTE ABOUT CURE TIME:**

**The product reaches full insulating ability after a cure time of approximately 30-90 days, which is dependent upon DFT and environmental variables. Test of thermal performance should be performed after full cure. Thermal benefits will typically begin to be seen approximately two weeks after application, and will continue to improve as the cure time completes. Final cure is complete when thermal performance has reached a steady state.**

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