



BREAKTHROUGH PRODUCTS BASED ON BETTER TECHNOLOGY.

NANSULATE® ADVANCED INDUSTRIAL PRODUCTS

A New Alternative for Energy Savings and Asset Protection

Thermal Insulation

in a thin film coating

Corrosion Prevention

combined with thermal resistance

Mold Resistance

without hazardous anti-fungal agents

Chemical Resistance

for severe service environments

Lead Encapsulation

with a clear, smooth finish

Flame Resistance

in a low VOC coating



- Thermal Insulation - contains Hydro-NM-Oxide - a nanomaterial with extremely low thermal conductivity 0.017 W/mK
- Corrosion Resistance - passed 24 cycles of the GM9540P salt spray testing - 8 cycles required for corrosion coatings
- Mold Resistance - passes ASTM D5590 & ASTM G21
- Typical energy savings reported - 20% to 40%. Typical ROI reported - less than 1 year.



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**We are the people who bring the best of science
to the world's innovative industries.**

Industrial Nanotech, Inc. funds & participates in research with the world's brightest scientists and leading laboratories. We produce materials that work for you...increasing productivity and efficiency. It's not just talk or theory...it's amazing technologies.

No one can afford to ignore the dramatic developments that nanotechnology is producing in materials and the manner in which materials are designed and manufactured. There are too many effective solutions to problems and too many opportunities coming to the marketplace to let anyone else get ahead.



NANSULATE® - GREEN NANOTECHNOLOGY

Industrial Nanotech, Inc. utilizes nanotechnology to provide materials with a unique combination of characteristics, which are not usually found together in the same product. These include ; thermal insulation, corrosion resistance, mold resistance, lead encapsulation, chemical resistance, and flame resistance. We also strive to create earth friendly technologies which positively impact the environment by reducing energy use.

Green characteristics of our products include:

- Reduces energy consumption in industrial, commercial, and residential applications
- Reduces carbon emissions by reducing energy use
- Water-based, non-toxic, low VOC
- The nanotechnology we use involves safe, micro-sized particles with nano-sized internal architecture and surface chemistry
- Safe for use by consumers, NSF non-food compound registered



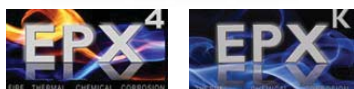
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NANSULATE® ADVANCED INDUSTRIAL PRODUCTS



Productline Overview

Industrial & Pipeline



Nansulate® EPX
water-based epoxy system
-severe service environments
-thermal insulation, corrosion resistance, chemical resistance, flame resistance



Nansulate® High Heat
water-based thin film coating
-temperatures up to 400F (204C)
-metal and non-metal surfaces
-thermal insulation, corrosion resistance



Nansulate® PT
water-based thin film coating
-temperatures up to 257F (125C)
-metal surfaces
-thermal insulation, corrosion resistance



Nansulate® GP
water-based thin film coating
-NSF Registered
-non-metal surfaces
-thermal insulation, mold resistance

Green Building & Solar



Nansulate® HomeProtect Clear Coat
water-based thin film coating
-thermal insulation
-mold resistance
-exterior or interior use
-clear, matte finish
-non-metal or metal surfaces



Nansulate® HomeProtect White Interior
water-based thin film coating
-thermal insulation
-mold resistance
-interior use
-white, semi-gloss finish
-can be tinted
-non-metal or metal surfaces



Nansulate® Solar
Thermal Solar Insulation Coating
-clear, matte finish
-increases system performance by reducing heat/energy loss
-insulates and protects against corrosion

Specialty



Nansulate® LDX
Lead Encapsulation Coating
-clear, smooth finish
-metal and non-metal surfaces



NanoBoost™
Automotive Parts Coating
-clear, smooth finish
-reduce heat transfer, boost horsepower
-thermal insulation, corrosion resistance



Nansulate® Top Coat
water-based, white, top coat
-white, semi-gloss finish
-can be tinted

Agriculture



Nansulate® Bee Protect Clear
Protective Hive Coating
-clear, smooth finish
-coated on exterior of hive
-insulates and protects against mold growth
-proven to keep bees healthier and more productive



Nansulate® Bee Protect White Top Coat
Protective Hive Coating
-white, semi-gloss finish
-coated on exterior of hive
-insulates and protects against mold growth
-proven to keep bees healthier and more productive



Nansulate® Greenhouse
Clear Greenhouse Insulation Coating
-Insulates from cold
-Allows through visible light
-Protects against harmful U/V
-Reduces energy used for heating plants in winter



BREAKTHROUGH PRODUCTS BASED ON BETTER TECHNOLOGY.



NANSULATE®
THE ULTIMATE INSULATION & CORROSION SOLUTION

Patented Energy Saving Technology

The Ultimate Solution to **Too Hot** or **Too Cold...Rust,** **Mold, Lead** and more.

**Pipes - Tanks - Steam Lines - Boilers - Attics - Ceilings -
Walls - Ships - Transport - Containers - Building Envelope.**

Nansulate®, patented technology, is a revolutionary breakthrough in the science of insulation, corrosion prevention, mold resistance, lead encapsulation, and chemical and flame resistance. Nansulate® is a premium industrial grade protective coating containing Hydro-NM-Oxide, a product of nanotechnology, which is documented as the best insulating material currently known. (thermal conductivity of 0.017 W/mK). Nansulate® when fully cured, contains approximately 70% Hydro-NM-Oxide and 30% acrylic resin and performance additives.

AN OVERVIEW OF THE NANSULATE® PRODUCT LINE

- Outstanding thermal insulation and corrosion resistance
- Easy application with brush, roller or paint spayer (non EPX)
- Non-toxic, water-based, no hazardous fumes
- Outstanding adhesion capabilities and ability to be applied to many different substrates, such as steel, aluminum, copper, wood, plaster, brick, stucco, PVC, concrete, and many others
- Resistant to existing molds as well as new molds, without use of harmful biocides
- EPX has excellent pot life (2 hours) and fast cure time
- EPX offers severe service protection against chemicals and flame

NANSULATE® ADVANCED INDUSTRIAL PRODUCTS

Nansulate® Product Line Benefits

Provides excellent thermal insulation in a thin film coating.

Prevents corrosion under insulation (CUI).

Safety and effectively encapsulates hazardous lead paint.

Provides excellent protection against corrosion.

Provides chemical resistance to acids, bases, and fuels.



Average reported return on investment is less than 1 year.

Space saving - low thermal conductivity allows thinner application for thermal benefit.

Versatile - Can be painted over or sprayed on in a variety of places, including tight spaces and over odd shaped parts.



GO GREEN & SAVE ENERGY EASILY WITH NANSULATE®



Nansulate® is a line of nanotechnology-based coatings which provide thermal insulation, corrosion prevention, mold resistance and lead encapsulation in a clear, thin film finish.



Hyundai saved money and alleviated a condensation issue by having Nansulate® applied to this luxury apartment building which they own.



- Save Money - Save Energy
- Insulate without losing square footage or costly remodeling.
- Keep buildings cooler in the summer and warmer in the winter.
- Resistant to existing molds as well as new molds, without use of harmful moldicides.
- Cost is only .44 to .53 cents per s.f.
- Easily applied with brush, roller or paint sprayer.
- Long term performance
- Non-toxic, Water-based

Major Industries where Nansulate® is Making a Difference



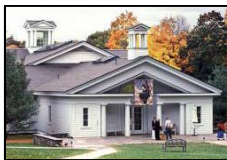
Commercial Buildings & Residential



BioFuels



Food & Beverage manufacturing



Museums & Public Buildings



Defense/Military

The science of tomorrow, providing solutions today.



Customer Applications & Feedback

Residential



Connecticut Homeowners, were looking for an easy way to reduce their heating bills during the cold season and make their home more energy efficient.

After coating their walls and attic with Nansulate as a thermal barrier, they found that their annual use of heating oil was reduced by 41%

Reduced carbon emissions for this project:

6,317 lbs annually by reducing heating oil use.

Heating Oil Cost before Nansulate (4 year Average)	Heating Oil cost after Nansulate (1st year)
\$1,618.21 per year*	\$952.65 per year*

*Cost per year was calculated using the July 16, 2007 figure for the average Connecticut regional retail heating oil price (\$2.61 per gallon). Source: (www.opm.state.ct.us).

Carbon emissions data calculated from www.epa.gov.

Industrial



Henateks, a large Turkish textile company, used Nansulate® High Heat insulation and corrosion prevention coating on its equipment and decreased its natural gas costs by 10% in only 4 months. Upon project completion, they are seeing a minimum of 20% reduction in energy usage.

Financially this equates to a savings of over \$600,000 USD per year for this one facility. The payback time for the application was 6-7 months.

Museum



The Seattle Museum of Flight was restoring the first jet airliner, the de Havilland Comet Mk4C. They used Nansulate Translucent PT as an earth-friendly means of protection for the aircraft from both condensation and corrosion.

"The coating you contributed has already become an important part of our eventual exhibit. We have painted the interior of our aircraft's forward passenger compartment's skin, and have already seen the benefits of its protection through a significant reduction in condensation. When we have completed the entire project, Industrial Nanotech's coating will be an important hidden addition to the 'first Jet Airliner' exhibit. The original interior skin finish was a revolutionary (for 1959) epoxy. It seems appropriate that we replace it with a revolutionary (for 2006) coating by Industrial Nanotech."

Other Museums using Nansulate include: The Norman Rockwell Museum (Stockbridge MA), the Metropolitan Museum of Art (New York, NY), the Please Touch Museum (Philadelphia, PA), the Rosemount Museum (Pueblo, CO)

SAVE ENERGY & PROTECT EQUIPMENT WITH NANSULATE®



Nansulate® is a line of nanotechnology-based coatings which provide **thermal insulation & corrosion prevention** for equipment and facilities. It has proven energy savings for a variety of textile applications.



Nansulate improves dye lot consistency when used as insulation on dyeing machines



Nansulate® is non-toxic and low VOC. It can be applied without equipment down time.

- Reduce your monthly energy costs.
- Keep buildings cooler in the summer and warmer in the winter.
- Low cost, fast return on investment.
- Insulate machinery of all shapes and sizes.
- Protect equipment from corrosion.
- Long term performance, thus minimizing costs of repair and maintenance.

Customer Savings Example:

One Textile Customer is saving \$40,000 USD per month in their Liquid Natural Gas (LNG) Costs.

Monthly LNG Cost prior to application	\$200,000 USD
Investment for Product/Application	\$120,000 USD
Percentage of Energy Saved after Nansulate.....	20%
Dollar Amount of Energy Saved.....	\$40,000 USD per month

Reduction in Energy Use = Reduction in Carbon Emissions



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NANSULATE® TECHNOLOGY

Reducing Energy Use - Saving Money

CUSTOMER SAVINGS: \$100,000/year

DYEHOUSE

Dyehouse for two of the largest sports apparel manufacturers in the world. Energy costs were reduced by 10%.

APPLICATION: LNG Burners, Dye Machines, Drying Ranges, Steam Pipes, Valves, Hot Water Storage Tanks



Material cost for project: \$40,000
Return on investment for project: 4 months



CUSTOMER SAVINGS: \$30,000/over 4 month period

CORNWELL QUALITY TOOLS

Used Nansulate as part of an integrated solution to increase energy efficiency in their facility

APPLICATION: Windows



Material cost for project: \$3,572
Return on investment for project: less than 4 months

CUSTOMER SAVINGS: \$600,000/year

HENATEKS TEXTILE

Large textile house that used large amounts of energy each year. Energy costs were reduced by 20%.

APPLICATION: LNG Burners, Dye Machines, Steam Boiler, Heat Exchangers



Material cost for project: \$200,000
Return on investment for project: 6-7 months



Applications and Testing

Water Pipes



**The Norman Rockwell Museum
Stockbridge, MA**

- Helps to regulate water temperature inside pipes.
- Stops Rust & Condensation

Metal Buildings



**Portsmouth Naval Shipyard
Kittery, ME**

- Reduces Heat Transfer
- Stops Corrosion
- Reduces Metal Temperature

Oil Pipeline



**Application on Oil Platform
in the Argentinian Sea.**

- Solution for insulation and corrosion prevention for pipes, pipeline and tanks.
- Solves CUI (corrosion under insulation)

Testing & Specifications

Tested By: Princeton Polymer Laboratories, EFI Polymers, Chemcoat, Inc., Sandia National Laboratories, EMSL Analytical, Inc., Assured Testing Services

Product	Tg (C)	Cross Hatch adhesion	Pencil Hardness	Freeze/Thaw Cycles	Max Temp (C)	UV Resist (h)
Nansulate(tm) GP, PT	55	5B	H	5+	125	2000
Nansulate(tm) High Heat	58	5B	H	5+	200+	2000

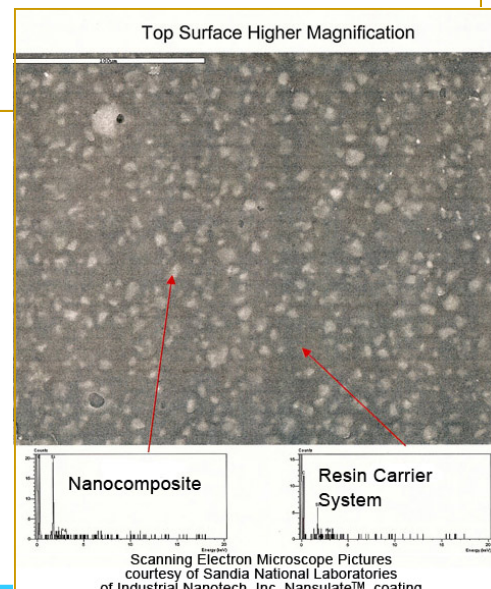
Thermal Conductivity.....Hydro-NM-Oxide.....0.017 W/mK

Accelerated Corrosion Test: GM9540P, 24 cycles passed, no red rust

Mold Resistant Testing: "Standard Test Method for Determining the Resistance of Paint Films and Related coatings to Fungal Defacement by Accelerated Four-Week Agar Plate Assay" ASTM D 5590 & "Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi" ASTM G21 : Zero or minimal growths

Flame/Smoke: Flame Spread – Class "A"
Smoke Developed – Class "A"

Adhesion Test: ASTM 3359 Cross Hatch Adhesion – Method B
No loss of adhesion.



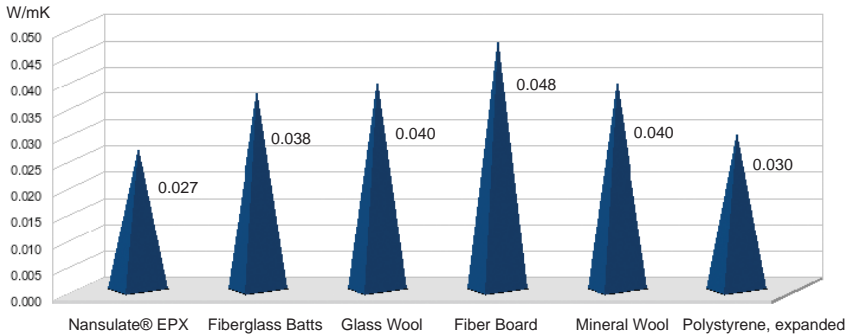


NANSULATE®

Item	Nansulate® Coatings	Notes
Coverage	150 s.f./gal @ 5.0 mils (3 coats)	
Container	1 gallon and 5 gallon	US gallon pail
Thickness of 1 coat	2.5 mils (63.5 microns)	Dry mils
Thickness of 3 coats	7.5 mils (190.5 microns)	Dry mils
Average wet coat thickness (each coat)	3 to 5 wet mils (76.2 to 127 microns)	Wet mils
Component parts	Inclusive	
Shelf Life	2 years	From date of manufacture
VOC Content	100 grams/liter	
Weight	8.2 lbs/gallon	
Volume Solids %	30.0 (+ or - 2%)	
Viscosity	3500 to 4000	
Cyclic Salt Fog test	Passed 2000 hours	ASTM B117
Accelerated corrosion test	Passed 24 cycles	GM9540P
UV Exposure	Passed 2000 hours	
Cross Hatch Adhesion	100% 5B	ASTM D-3359
Pull Apart Strength	2400-2450 psi	ASTM D-4541
Flame/Smoke Spread	Class A	ASTM E84
Mold Resistance	Passed	ASTM D5590 & ASTM G21
Application Temperature	40-200°F*	*application can be done on surfaces higher than 200F with a misting spray technique
Operating Temperature - PT, GP, HP Clear Coat	-40 to 257 °F	
Operating Temp - High Heat	-40 to 400 °F	
Dry time/coat	Approx. 1 hour	May fluctuate depending upon the humidity of the environment
Hazardous Ratings	Considered non-hazardous	
HMIS Ratings	Health = 1 Flammability = 0 Reactivity = 0	
Color	Translucent, flat	

PRODUCT GUIDE

SKU#	Color	Description	Packaging	Weight
EPX_2GK	Grey/Blue	Nansulate® EPX 2-gallon Kit	Part A in 2-gallon pail Part B in 1-gallon pail	not less than 11.5 lbs. not less than 2.9 lbs.
EPX_5GK	Grey/Blue	Nansulate® EPX 5-gallon Kit	Part A in 5-gallon pail Part B in 1-gallon pail	not less than 29.0 lbs. not less than 7.3 lbs.



References for thermal conductivity include in house testing and the Engineering Toolbox

Thermal Conductivity Comparison

Thermal conductivity indicates a material's ability to conduct heat. The lower the value, the better the insulating ability

EPX Technical Data

Touch Dry:	3 hours
Hard Dry (return to service):	24 to 36 hours
Typical thickness range:	1/8" to 1" per coat
Theoretical coverage:	@ 1/8" - 48 s.f. per 2-gallon kit
Thermal Conductivity:	0.027 W/mK @ 20°C @ 1/8"
Chemical Resistance:	Resistant to Acids, Bases, Fuels
Tensile Strength (ASTM D2370):	3500 psi, 24000 kpa
Abrasion Resistance:	Hard
VOC	60 grams/litre



Ecologically
Friendly



Energy
Saving



Saves
Money



Chemical
Resistant



Flame
Resistant

For More Information
Contact Us At
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International: 1-951-324-7121
or visit our website
EPX4.com



NANSULATE® EPX

Patented Technology

Another fine product developed by



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