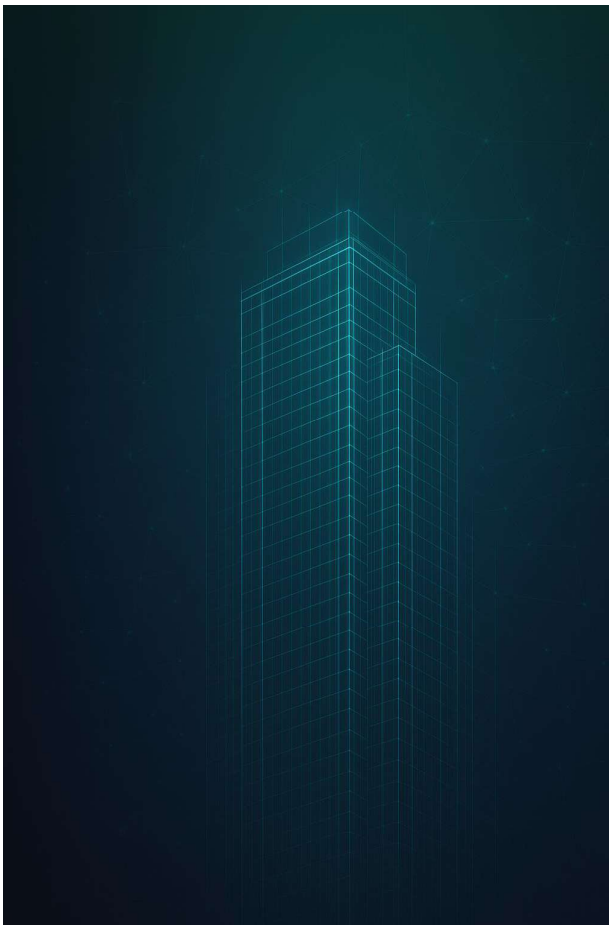
NanoTech Materials Insulative Ceramic Particle Platform

NanoTech Materials, Inc. has revolutionized the science of heat control by integrating its novel Insulative Ceramic Particle (ICP)™ into common building materials, coatings, and substrates, giving them unprecedented heat conservation, rejection, or containment properties.



Flagship Products: Multi-Market Penetration

1

Cool Roof Coating

Targeting $9.51B market

- Delivers 30-50% energy savings
- Certified, ready for scale
- White label partnerships established

2

Wildfire Shield

Addressing $6.6B fire protection market

- Caltrans validated performance
- Critical infrastructure protection
- Government/OEM contracts potential

3

ICP Insulator

Penetrating $96B thermal insulation market

- Thin-film disruption of traditional solutions
- Substantial material and space savings
- Cross-industry applications

THE SCIENCE BEHIND OUR ICP™

- Our Insulative Ceramic Particle (ICP)™ can be embedded into common building materials, coatings, and substrates, giving them unprecedented heat conservation, rejection, or containment properties
- Once cured and when exposed to an impingent flame or heat flux, the particles vibrate, emitting the heat away.
- The sponge-like internal structure ensures low density and low mass while simultaneously preventing heat penetration

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COMMERCIALLY AVAILABLE PORTFOLIO

Formulations are adaptable to paints, polymers, cement, resins, and more...

Insulative Ceramic Particle ™

Fire Mitigation
Up to 1,800 °C

Cool Roof Coating
Reduce energy costs & carbon footprint

Insulative Coat: Cool Touch

Battery Shield
Fire mitigating cellulosic fiber. Non-flammable, non- flame spread, low thermally conducive panel system

Refractory Shield
Next generation refractory material

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NanoTech Fire Protection: Revolutionizing Fire Safety Through Innovation

Pioneering nano-coating technology set to transform the $50B+ global fire safety market


Watch This
thenanoshield.com

WILDFIRE SHIELD PROVIDES A COST EFFECTIVE, FIRE RESILIENT SOLUTION, FOR THE CONTINUED USE OF WOOD TIMBER LAGGING

- ✓ No reactivation energy required
- ✓ Non-Toxic/ No reportable VOCs
- ✓ Non-sacrificial
- ✓ Sprayable/Easy to apply
- ✓ Aesthetic finish (pigments available)
- ✓ Withstands up to 1,800 C
- ✓ Breathable with zero smoke or flame spread
- ✓ Multiple hour ratings of ASTM E119 and E84
- ✓ Lightweight
- ✓ Durable/UV protective
- ✓ Engineered, designed, and assembled in the U.S.A


Click Image for Video
NANOTECH
MATERIALS
NANOTECH FIREPROOF COATING
IS 13X BETTER AT RESISTING HEAT TRANSFER
THAN INTUMESCENT PRODUCTS
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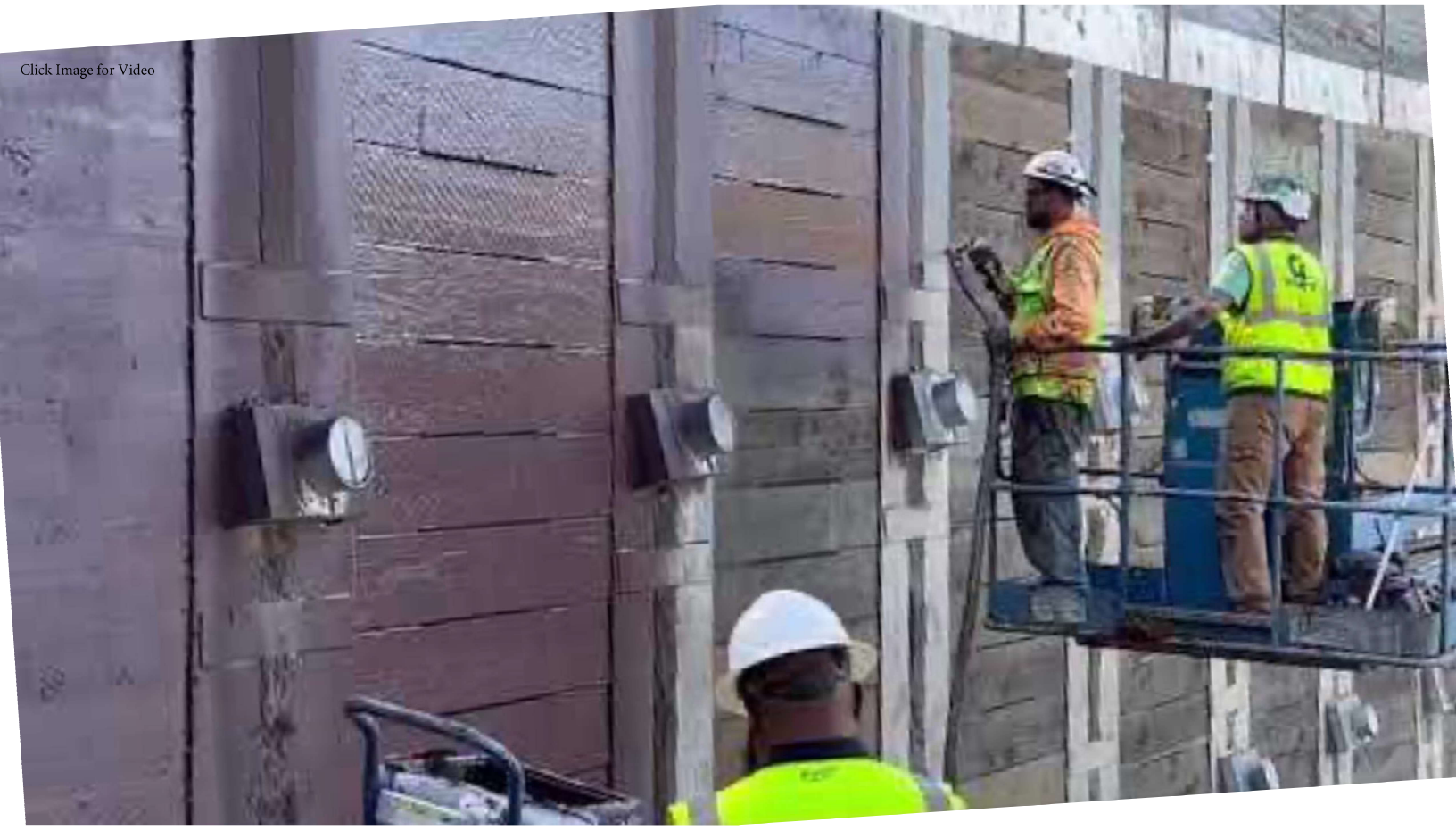
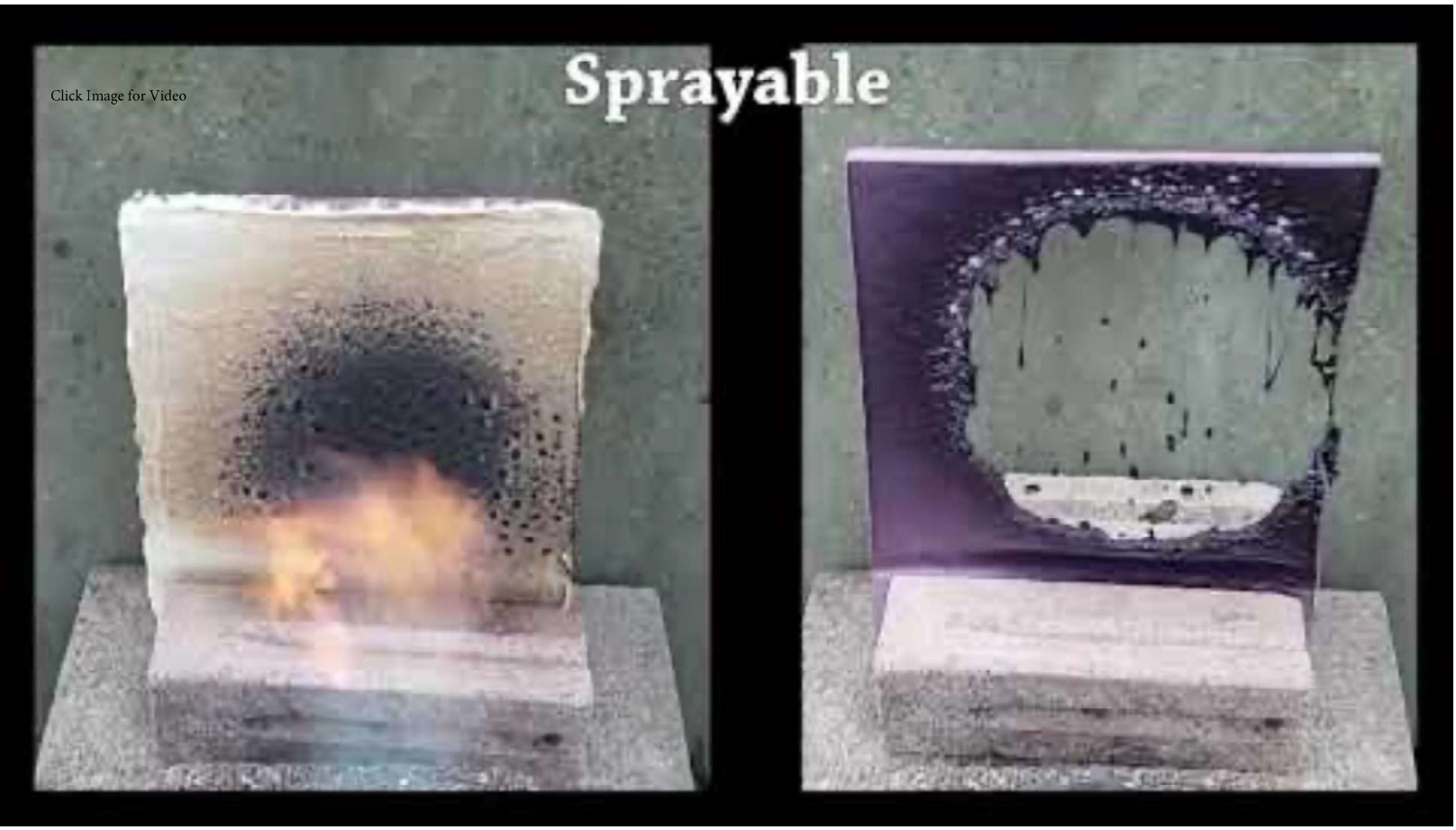
Click Image for Video




Click Image for Video
Sprayable

Click Image for Video

Cool Roof Coat Key Benefits

- High solids acrylic emulsion system (71.8% solids)
- Stops heat penetration through the roof
- Significantly extends roof life
- **Applied at 2 gal/square for standard 10-year warranty***
- Engineered, designed, and assembled in the USA
- Reduce HVAC usage by up to 49%
- Shelf Life: 12 months
- 10/15/20 year warranty options available
- Excellent adhesion and flexibility
- Superior UV resistance
- Waterproofing/ 2-inch hail resistance
- Significant Tax Savings (179D)
- Low VOC

*additional application rates apply for longer warranties

ICC

CRRC COOL ROOF RATING COUNCIL RATED PRODUCT

CERTIFIED ISO 9000

*FBC # FL46925 Approved

MIAMI-DADE COUNTY APPROVED

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Building Case Study Fortune 500 Big-box

- Highly 180,000 ft^2 single store retail facility with 30-foot ceilings and a trapezoidal metal roof which had never been coated.
- During baseline scans of the facility on the uncoated roof, surface temperature was 149 F and the ceiling temperature taken underneath the bat insulation was 112.28 F (44.6 C) with an ambient outside temperature of 90 F.
- **This means that the store's HVAC system was constantly working to bring the internal temperature from 112 down to ~70 for the customers at ground level.**
- **Cool Roof Coat dropped internal ceiling temp to 73F and reduced the cool component of HVAC use by 49%.**

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Process to Install

NanoTech Cool Roof Coat is warranty backed and now available nationwide, installed exclusively by our network of trained and certified professionals, to ensure the highest standard of service and longevity.

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Why Insulator Represents a Unique Opportunity

Perfect Market Timing

With energy costs soaring and sustainability mandates tightening globally, the $65B insulation market is ripe for disruption. Traditional insulation hasn't fundamentally changed in 50 years.

Technology Advantage

NanoTech's insulator provides 3x better thermal performance at 1/5th the thickness of traditional materials. This isn't an incremental improvement—it's a paradigm shift.

THE SOLUTION:
NANOTECH MATERIALS, INSULATIVE COAT: COOL TOUCH

- **Powerful Thermal Barrier:** Prevents burns from skin contact, enhancing worker safety
- **Patented Technology:** Infused with (ICP)™ technology
- **Efficacy:** Reduces heat transfer on pipes, boilers, and high-heat surface, ensuring cool touch.
- **Low Heat Transfer:** Extremely low k-value for highly effective insulation.
- **Temperature Range:** Designed for superior insulation from -22F to 350F with minimal film thickness.
- **Easy Application:** Fast cure, spray on coating which adheres directly to primed steel surfaces for long-lasting protection in a single pass.
- **No CUI:** Does not promote corrosion under insulation (CUI)
- **Ideal Industrial Formulation:** Anti-pipe sweating through eliminating condensation. Passed ISO 12944 for Condensation and Natural Salt Spray

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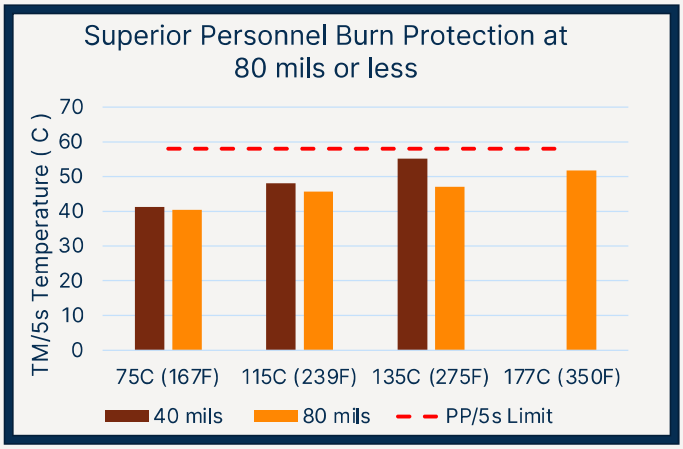
SUPERIOR PERSONNEL BURN PROTECTION AT 80 MILS OR LESS

- Burn protection up to 275 F in a single pass
- Burn protection up to 350 F in only two passes
- NACE TM21423-2020 validated
- NSF certified



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104.5
Thermometer
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INSULATIVE COAT
After six hours NanoTech Materia
kept the final water below ambient
a Coleman Cooler!

Container Case Study Saudi Arabia

- 20 ft container
- Roof and Sides were coated with Cool Roof Coat
- Pre-coating temperature readings:
  - Roof – 159.1 F/70.5 C
  - Internal Ceiling – 141.98 F/61.1 C
- **Post-coating temperature readings:**
  - **Roof – 129.38 F/53.8 C**
  - **Internal Ceiling – 105.8 F/41 C**
  - **Internal Room Temp w/o AC – 93.2 F/34 C**
- **Cool Roof Coat reduced HVAC energy consumption by 70%**

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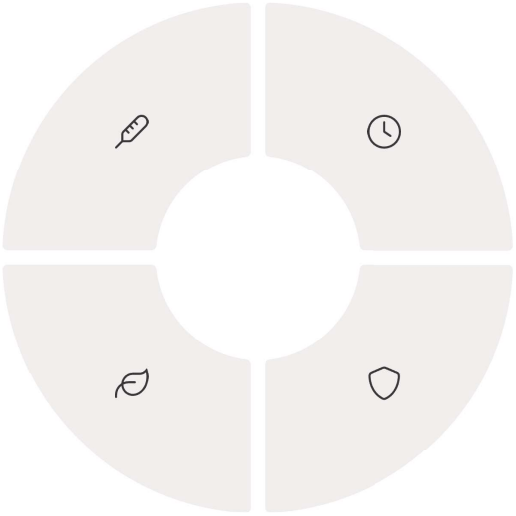
The Insulator Advantage: Revolutionary Performance

Insulation

CUI + Insulation

Installation

75% faster than traditional methods



Environmental

90% lower carbon footprint

Durability

50-year lifespan with no degradation

SUPERIOR INSULATION

NanoTech Materials insulation test in carbon steel pipes

- Product: NanoTech Materials Thermal Coat
- Ambient Temperature: 25 C
- Temperatures measured at steady state conditions with a variance of + or – 4 degrees.
- Internal liquid: Mineral Oil
- 5- inch diameter Carbon Steel Pipe: 1 meter length
- Thermal conductivity constant min measured = 0.05 W/mK
- Thermal conductivity constant max measured = 0.08 W/mK

	Internal Liquid Temp				
Thickness / mm	100ºC	150ºC	200ºC	250ºC	External Surface Coating Temperate
2	76	112	145	179	
4	63	87	112	139	
6		74	91	116	
8		69	87	101	
10		61	71	87	
12			63	79	
14			60	72	
16				67	
18				63	

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