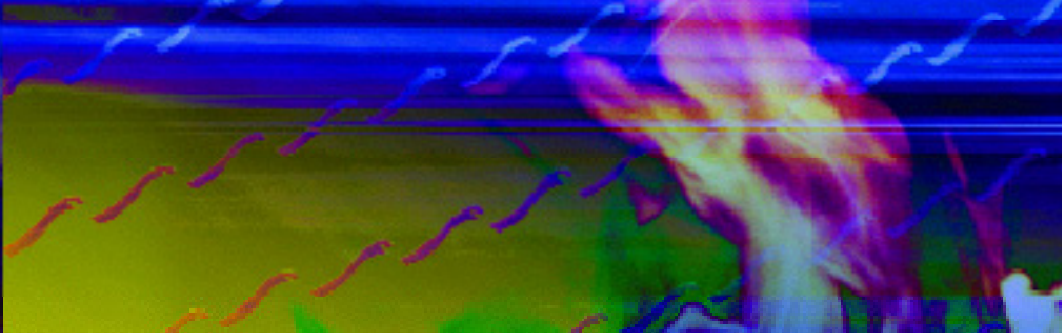


SUPER THERM[®]



The right coating for ultimate protection.

SUPER THERM[®]

DEFEATING THE THEORY OF (R) HEAT REFLECTION, NOT ABSORPTION

In conventional insulation, the measurement of resistance is based upon the transference of heat through an insulation material. This measurement is known as (R). Insulation materials that use this guide of resistance are a means to temper heat, but also require thickness. The thicker the material, the slower the time will be to absorb and eventually transfer the heat from the external source into the insulated environment. These materials allow a 100% loading of surface heat facing the heat source.

Super Therm[®] does not absorb heat and, therefore, does not require thickness—effectively eliminating a measurement of (R) value. Super Therm[®] is a blend of ceramic compounds that, when applied to a surface, will reflect heat away from protected areas. Super Therm[®] only allows a 5% heat load of the surface facing the heat source.



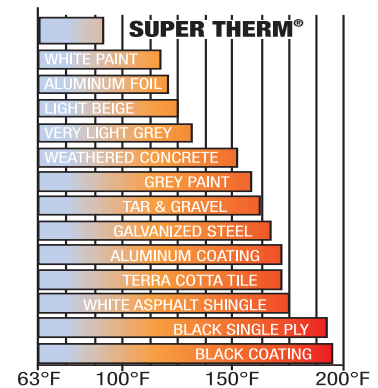
Super Therm[®]:

- Has a reflective value of 95%, effectively blocking all three windows of heat—infra red, visual light and UV (infrared emissivity rating of 0.901 to repel surface load)
- Creates a moisture barrier to resist condensation, mold and mildew (ASTM D 7088; 9/10 per Buckman Laboratories)
- Has a class A Fire Rating— “0” flame and smoke. Resists fire and chemicals, provides insulation, and corrosion protection
- Out-performs fiberglass, cellulose, fillers and polystyrene foam
- UL, FM, ABS and USDA approved
- ICC approved, CRRG Listing—selected Energy Star[®] with only a 0.6% drop in three years (less than 1% loss of reflectivity on the same roof area after three years weathering)
- Is a water-based coating that is VOC compliant
- Reduces surface maintenance with 15+ years of expected wear
- Approved water barrier under ASTM testing D6904 and D7088

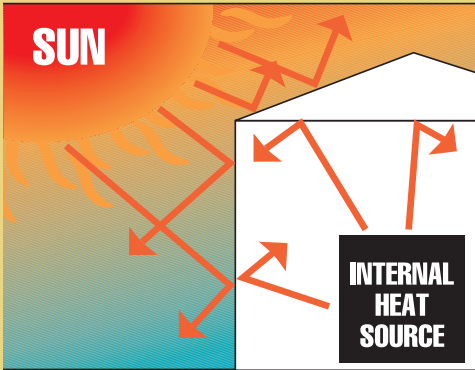
- ✓ = Approved
- = Partial Approval
- ⊘ = Not Possible

	Super Therm [®]	Fiberglass	Cellulose Fillers	Ceramic Fillers	Polystyrene Foam
RE19, one, 10-mil coats (Interior App.)*	✓	10"	8"	⊘	5.5"
RE19, one, 10-mil coat (Exterior App.)**	✓	⊘	⊘	⊘	⊘
68% Sound Blockage	✓	✓	✓	⊘	✓
Rated as one of EnergyStar [®] best overall	✓	⊘	⊘	⊘	⊘
Approved by California Cool Roof program	✓	—	—	✓	—
NASA tested	✓	—	—	⊘	—
Proven for both interior and exterior	✓	—	—	—	—
Class "A" rated "0" flame spread	✓	⊘	⊘	✓	⊘
Passed 2000 hrs of salt spray testing	✓	⊘	⊘	⊘	⊘
USDA approved	✓	—	—	—	—
Moisture resistant	✓	⊘	⊘	✓	⊘
Blocks 99.5% of infrared rays	✓	—	—	—	—
Resists mold and mildew	✓	⊘	⊘	✓	⊘
K Factor (less is better)	0.10	0.29	0.31	⊘	0.28
25 years, residential life expectancy	✓	—	—	⊘	—

Temperature of coatings & other materials in sunlight



Test Conditions: Central Texas, August, Ambient Temperature of 90°F Clear skies.



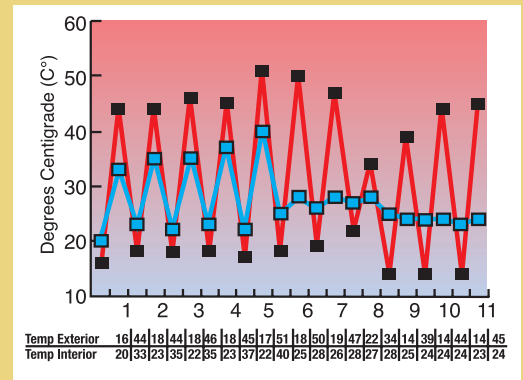
The composition of Super Therm® makes it a superior solution in insulation requirements. Super Therm® is a combination of high-performance aliphatic urethanes, elastomeric acrylics, and resin additives in a water-borne formula. Super Therm® has four different ceramics, used to block 95% of the three sources of heat—visible light, ultra violet rays and infrared rays. Super Therm® creates a permanently flexible “breathing” membrane that also stops water penetration to help in the preven-

tion of corrosion and surface deterioration (ASTM Tested).

Beating the Heat:

Subject: Metal roof in Sevilla, Spain; temperature readings taken 8:00 am and 2:00 pm to determine increase of heat load from the coolest point of the day to the hottest. Super Therm® was applied at the beginning of the 6th day (shown on chart). A noticeable change is recorded on subsequent readings, indicating a leveling of temperature between the morning

Super Therm® has found success in a variety of insulation applications—from housing, to protection of container and storage facilities, and as the only insulation barrier in use on the world's largest casino boat.



and afternoon interior readings compared to the consistent exterior temperature readings (private industry test data).

NASA VALIDATES SUPER THERM WITH FLAMMABILITY AND TOXICITY TESTING.

SUBJECT: Flammability Testing

“The subject material has been tested for flammability by the procedures outlined in NHB 8060. 1B/C, Test 1.

The subject material met the acceptance criteria of NHB 8060 1B/C Test 1. The overall rating was determined by an analysis of all available data.”

— C.F. Key
Deputy Director
Materials & Processes Laboratory
5/3/95

Sample Size: 2.5” x 12”
Substrate: 0.020” Aluminum
Cure: 2 coats applied per test sample:
(1) 2 hours, 75F., 14.7 psia
(2) 336 hours, 75F., 14.7 psia

Test Number	Thickness	Environment
M103903-A	0.0080”	30% Oxygen 10.2 psia
M103903-B	0.0076”	34% Oxygen 10.2 psia
M103903-C	0.0079”	40% Oxygen 10.2 psia

Burn length for all three = 0”
Rating for all three = A

SUBJECT: Toxic Off-gassing

“The subject material has been tested for toxic off-gassed products by the procedures outlined in NHB 8060. 1C, Test 7, Space Orbiter.

The subject material met the acceptance criteria of NHB 8060. 1C for toxic off-gassing...

An overall rating of K has been given to this material for toxicity.”

— C.F. Key
Deputy Director
Materials & Processes Laboratory
5/16/95

Composition: Acrylic & Polyurethane with Ceramic Filler
Cure: 1st Coat: 2 hours, 75 F., 14.7 psia
2nd Coat: 336 hours, 75 F., 14.7 psia
Material Code: 02181
Project: Space Station Study
Test Number: M103903-D
Test Temperature: 120F
Sum T100 Value: 0.02196
Max. Limit Weight: 2276.87 lbs
Rating: K (“O” offgassing)



SUPER THERM

THE SECRET OF EMISSIVITY

Nissan Building—Before coating



Nissan Building—After coating



(courtesy of Daiko Shokai-Asian Distributor)

“When radiation energy falls on a body, the body will warm up until it emits as much heat as it absorbs and then stops warming, reaching a state of thermal equilibrium. If the heat loss by the body takes place in empty space, the only way in which the body can lose heat is through radiation. In that case its radiated energy flux will be equal to the absorbed flux.

Reflectivity = 1 – Absorptivity.
What this means is that if all energy is reflected, no energy is left to be absorbed.

Absorptivity = Emissivity
What this means is that only the absorbed energy is emitted.

So if there were no absorption of energy, there would be no emission of energy either.

...As a point of reference, emissivity refers to the properties of a material; emittance to the properties of a particular object that depends on the shape of the object, oxidation and surface finish. As an example, if shiny metal surface which has a low emissivity is oxidated and gets dirty, its emissivity remains the same but its emittance becomes very high.”

—Inn Choi, PhD.

“Super Therm reflects 95% of all radiation allowing only a 5% heatload. Super Therm repels (throws off) 90% of the 5% heat load from the surface.”

—J.E. Pritchett

SUPER THERM® IS CERTIFIED ENVIRONMENTALLY FRIENDLY AND ENERGY EFFICIENT

U.S. Green Building Council, Leed Program (Leadership in Environmental and Energy Design) (Green Building Rating System)

Points come from the following criteria: Temperature Reduction, Containment of Biohazards—Lead-based Paints and Asbestos, Environment Improvements for Humans and Animals, Reduction of Harmful Environmental Properties.

U.S. Department of Agriculture
Super Therm® has been tested and approved for use inside food facilities.

MBDC Cradle to Cradle Certification
“Gold Certificate” awarded to Super Therm®

Certifies the following: (i) product is environmentally safe and contains healthy materials; (ii) product is design for material re-utilization, such as recycling or composting; (iii) product promotes renewable energy and energy efficiency; (iv) product production employs efficient use of water, and maximum water quality; and (v) company has instituted strategies for social responsibility. MBDC is a product and process design firm dedicated to transforming the design of products, processes, and services worldwide and promote and power “the Next Industrial Revolution” through intelligent design. Employs Cradle to Cradle Design using strategies called “eco-effective” (rather than the widely promoted “eco-efficiency”) to create products and systems that contribute to economic, social, and environmental prosperity.





WHAT MAKES A SUPERIOR PRODUCT

For over 17 years, Superior Products International II, Inc. has researched, developed and tested proven solutions to real-world problems of heat, corrosion, sealants and insect elimination. Each of our branded products has the backing of extensive scientific trials, both in the lab and in the field. SPI holds the distinction of having scientific research and testing relationships with major corporations around the world and with NASA.

Superior Products International II, Inc. works through a network of dedicated distributors who are rigorously trained in the use and application of the SPI branded line of coatings. Each SPI distributor strives to demonstrate the highest standard of the SPI Products line in performance, delivery and results.

Each SPI branded product offers more than claims of results—the proof is in the successful application and use of our products. All over the globe, more industrial, commercial, petrochemical and residential coatings are SPI branded products. Superior Products International II, Inc. has built a reputation on the proven results of our coatings, but SPI is more than just coatings.

We are a solutions driven company. Our product line has developed from our historical commitment to solve problems. Each product found an avenue to existence based upon a tangible or required need in the field. They were proven in field use before being laboratory tested and established for sale in the market place. When a company or industry is challenged to resolve a problem with heat, corrosion, sealants or insect elimination, SPI steps up to deliver.

The Superior Products International II, Inc. product line:

- > Super Therm® > Rust Grip® > Enamo Grip > Enamo Grip
- > HPC™ Coating > HSC™ Coating
- > Omega Fire™ (SP2001F) > Moist Metal Grip > Lining Kote
- > Super Base HS > Epoxotherm > Total Seal > Aqua Pox > SP Super Cleaner
- > SP Ceramic Stucco > Sunshield > ATC > SP Primer

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