Superior Products
International II, Inc.

The right coating for ultimate protection.

10835 W. 78th Street • Shawnee, Kansas 66214 • www.spicoatings.com
Rust Grip® is reviewed and approved by these organizations:
- USDA Product Safety Branch
- ABS (American Bureau of Shipping)
- DNV (Det Norske Veritas)
- US Coast Guard
- Louisiana Dept. of Transportation
- Tennessee Dept. of Transportation
- Georgia Dept. of Transportation
- University of Kentucky
- IMO (International Marine Organizations)

One-coat, patented encapsulation—interior and exterior—Rust Grip® is the one surface protection coating that also acts as a full containment covering. This moisture-cured polyurethane coating has been used successfully in the harshest environments; chemical fields, oil fields, oil rigs, and in areas that demand resistance to the corrosive effects of day-to-day exposure. Rust Grip® is tested to encapsulate toxic elements such as existing lead-based paint, asbestos and other biohazard materials. Passing 15,000 hours of ASTM B117 with the Top Score of 10 at only 6 dry mils and with scribe 500 hours, no blistering.

Rust Grip® is easy to use and stops the progression of rust and corrosion, while protecting the substrate far longer than conventional, surface gluing, industrial grade rust inhibitors. With minimal preparation and no white sand blasting of the surface, Rust Grip® applies with one coat, “two applications,” and penetrates deep into and seals the pores of the surface to become part of the surface profile.

Within an hour of application, Rust Grip® begins to cure, pulling moisture from the air and microscopically swelling into the individual pores of the substrate as it hardens. This moisture absorption anchors the coating and seals against any possibility of outside air, moisture or minerals from entering the pores and attacking the surface and causing further corrosion or penetration of any kind.

Rust Grip® is tested to encapsulate:
- Rust
- Lead-based paint
- Asbestos
- Bio-hazardous materials

Rust Grip® has the ability to protect against mold and mildew on surfaces that are prone to damage from prolonged exposure. Rust Grip® creates an unsurpassed protective surface, proven time and again through on-site evaluations and real-world applications.

- Patented encapsulation of bio-hazardous materials
- Pull testing avg 1480 psi
- Exceptional adhesion: ASTM 5B rating
- Surface tensile strength: 6,780+ psi
- Withstands temperature up to 600°F (315°C)
- Certified penetration of 18 layers of existing lead-based paint
- Endures 29,700 rub cycles without exposing existing lead-based paint
- Passed 15,000 hour salt spray test
- Test “5” on Flame Spread (0-25 Class A)
- Meets EPA Guidelines
- Certified water barrier: ASTM D6904 and ASTM D7088 hydrostatic & wind driven rain
- Over 15 years of successful use on oil rigs and pipe lines

Rust Grip® can protect and seal surfaces of steel, aluminum, concrete, wood, fiberglass, and other substrates. Rust Grip® will seal out moisture and air with a permanent membrane that stops penetration and deterioration, blocking chemical pollutants that cause corrosion and deterioration.
Moist Metal Grip is a two-part epoxy coating designed for application on dry or wet surfaces for protection against corrosion and chemicals. It is applied by brush or roller even while the surface is wet. Moist Metal Grip adheres to metal as well as concrete and wood surfaces. Epoxotherm can be applied as the top coat to stop condensation.

Moist Metal Grip is resistant to water, solvents, and humidity. To apply, remove algae and residues from wet surfaces, then apply Moist Metal Grip directly to the surface, with firm pressure to force the coating into pores. Moist Metal Grip can be applied directly over flash or surface rust without loss of adhesion.

Moist Metal Grip is EU certified for potable water usage and approved by European standards. It is tested to withstand temperatures up to 350°F (176°C) and for 450 hours of salt spray exposure.

Moist Metal Grip is ideally suited for surfaces that will be submerged or subjected to constant water pooling or condensation.

Lining Kote is a two-part, pigmented, high-molecular epoxy coating, which produces a flexible, durable, protective film coat. Lining Kote is designed to withstand the toughest acid, chemical or solvent environments. It is ideal for petrochemical plants, chemical storage, ballast tanks and more. Lining Kote has outstanding adhesion and extended durability and will withstand direct impact.

Lining Kote is resistant to water, humidity, and chemical solutions and can withstand temperatures up to 350°F (176°C).

For milder chemical or sewage water containment, allow the coating to cure for three days, then put it to use. It will finish curing underwater.

For severe environments, particularly those in ACID containment areas, Lining Kote must be given 60 days to fully cure before use.

For best use, apply Lining Kote in three coats, one day apart.

SP Super Cleaner is a high performance, full strength cleaning agent that combines exceptional cleaning strength, safety and quick, total evaporation.

Substitute SP Super Cleaner for any of the hazardous solvents that are more commonly used in industrial applications, particularly where high-solvency is a prime consideration. Use SP Super Cleaner on parts, washers, ultrasonic cleaners or flow rinsing systems.

It may be applied by wiping, coarse spraying, or by dipping.

SP Super Cleaner does not evaporate as quickly as acetone, which results in lower VOC emission levels. It is as effective as acetone but safer to use because it is nonflammable and reducible with water.
Blended as a two-part polyurethane enamel, Enamo Grip forms a hard and durable coating film that resists water, humidity, staining, acids, solvents and chemicals. Enamo Grip excels as a premier finish sealer for walls, floors and ceilings—over a variety of materials, including: masonry, wood, metal, concrete and other porous surfaces.

Enamo Grip can be applied by airless spray, brush or roller, and finishes with an even, self-leveling glossy surface. No brush marks will show in the finished surface.

Once cured, clear Enamo Grip is graffiti resistant. Krylon spray paints, magic markers and other marring mediums can be wiped off completely. Enamo Grip is in use in Rome, Italy to protect public transportation from the destructive effects of graffiti. The use of Enamo Grip as a protective finish helps to save millions of dollars annually by reducing or even eliminating the need for blasting and repainting graffiti marred surfaces. Enamo Grip is not affected by solvents and does not allow paints or oils to penetrate its surface.

Enamo Grip is available in colors and can be tinted to any color to match existing color schemes. Enamo Grip 5000 - polyester to withstand acids, chemicals and caustics.

Typical uses for Enamo Grip include:

- Architectural and maintenance situations that require extensive exterior durability
- Swimming pools, jacuzzis, and water parks
- As a topcoat over Super Therm®, Rust Grip® or Moist Metal Grip
- As a one-coat system for graffiti protection
- As a floor covering where a tough, long-lasting finish is required—non-skid can be added to the formulation if required
- Anywhere that a UV-resistant topcoat is required

Enamo Grip provides a permanent, protective membrane that stops water penetration, preventing surface deterioration, contamination and development of mold and mildew. This makes Enamo Grip an excellent finish choice for fully submersible surfaces such as pools, Jacuzzis, hot tubs, waterslides, and water rides. Enamo Grip is a certified water barrier under ASTM D6904 and ASTM D7088, hydrostatic, and wind driven rain.

Enamo Grip is used all over the world in applications that demand extended protection from weather, UV radiation, and wear and tear. Enamo Grip is USDA approved for use in and around food preparation areas. Enamo Grip has a 15+ year expected lifespan under normal conditions.

Enamo Grip is a reliable topcoat and sealer for use in harsh environments including uses for UV protection, water resistance, and for mold and mildew protection. It is an excellent finish over Rust Grip® and Super Therm®.
The right coating for ultimate protection.
Super Therm
Defeating the theory of (R)
Heat reflection, not absorption

Super Therm® Replacing the theory and outdated (R) measurement. (R) measurement is purely the calculation of how fast heat passes through a material (originally designed specifically for fiberglass). It is accepted that there will be 100% heat load on one side of the material and then measure how fast this heat passes through. The problem is that 100% heat load will be passed through at a reduced rate. It absorbs into the material and once it is fully loaded - is there still any (R) value?

With this fact on the table, if the “initial loading” of heat was reduced to only 5%-10%, then this amount of heat is all that is available for transfer during the entire heating cycle. It is best to not load the heat, rather than slowing all of it passing through and all of it eventually coming through.

SUPER THERM® is an excellent reflective surface, but the performance is only part of how it blocks heat load. The unique ceramic particles resist absorbing heat as heat without the benefit of reflecting. If a surface cannot load heat even after 10 years of surface and environmental dirt accumulation, then the ability to block heat load is long term and does not diminish.

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, CRRC 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Super Therm</th>
<th>Ceramic Paints</th>
<th>Polystyrene Foam</th>
<th>Fiberglass</th>
<th>Cellulose Fillers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound Blockage</td>
<td>68%</td>
<td>75%</td>
<td>70%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>Approved</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Partial Approval</td>
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</tr>
<tr>
<td>Not Possible</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Resistance</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Moisture Resistance</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Blocks 99.5% of infrared rays</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Passed 2000 hrs of salt spray testing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Flame and Smoke</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>25-Year, residential life expectancy</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
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 prevention 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 and afternoon interior readings compared to the consistent exterior temperature readings (private industry test data).

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**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 8060.1 B/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, 75°F, 14.7 psia
(2) 336 hours, 75°F, 14.7 psia

<table>
<thead>
<tr>
<th>Test Number</th>
<th>Thickness</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>M103903-A</td>
<td>0.0080”</td>
<td>30% Oxygen 10.2 psia</td>
</tr>
<tr>
<td>M103903-B</td>
<td>0.0076”</td>
<td>34% Oxygen 10.2 psia</td>
</tr>
<tr>
<td>M103903-C</td>
<td>0.0079”</td>
<td>40% Oxygen 10.2 psia</td>
</tr>
</tbody>
</table>

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: 120°F
Sum T100 Value: 0.02196
Max. Limit Weight: 2276.87 lbs
Rating: K (“0” offgassing)
“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

**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.
More options from Superior Products International II, Inc.

SP LIQUID MEMBRANE

This is a sprayable rubber coating to be applied using a standard airless sprayer, squeegee, roller or brush. The product can be partially used, recapped and saved for later use (unlike current rubber coatings of like type that must be applied when activated and application begins.)

- Passed the ASTM D6083 testing requirements for roofing, Title 24, California and Dade County, Florida.
- Offers excellent reflectivity of 87% and emissions of .93 when produced in white.
- Is designed to provide water proofing for surfaces and be less expensive and extremely easy to apply.

SUPER Base HS

Super Base HS is a one part, water-based, high performance elastomeric acrylic coating designed for application on roofs or wall structures to seal cracks and to perform as an excellent base coating.

Super Base HS adheres tenaciously, resists ponding water and UV and weathering, and remains tough and flexible. It can be used alone or with a topcoat of Super Therm® to create a long lasting, water tight, energy barrier roofing system. Super Base HS can be applied to tar, wood, asphalt shingles or concrete.

It may be applied with airless or pot sprayers, brush or roller. Coverage rate is 30 sq. ft./gal. to fill cracks and as a roofing base, or 100 sq. ft./gal. to seal wood or concrete as a base coating for Super Therm®.

Super Base HS should be used specifically as a primer, applied directly over the top of sealing tape—where sealing tape is used to mask seams—before Super Therm® is applied on a roof or wall substrate.

TOTAL SEAL

Total Seal is a two-part epoxy coating designed for application on wet or dry surfaces and to seal concrete and masonry. Total Seal provides excellent solvent and chemical resistance. Use it to coat concrete floors or concrete block walls. Total Seal may be used below grade, and makes an excellent basement liner to block water leakage.

Total Seal can be tinted to any color. It dries to a semi-gloss finish and is resistant to scuff and direct impact.

AQUA POX

Aqua Pox is a two-part, amine-cured, epoxy coating that will demonstrate the physical properties of solvent-borne epoxies but in a water-reducible formula.

Aqua Pox displays excellent adhesion properties and produces a surface coating/film that will exhibit outstanding resistance to water, chemicals, acids, solvents, oils and gasoline. It is designed for the protection of steel and concrete surfaces.

Aqua Pox should be used for all interior sealing applications where durability is required and solvent odors or flammability are not acceptable, such as the interior lining of tanks. Aqua Pox produces a surface that will resist impact, abrasion and scuffing.

Aqua Pox can be tinted to any color. It dries to a semi-gloss finish and is resistant to scuff and direct impact.
HPC™ Coating

HPC™ Coating is a combination of high performance, specially designed, high-temperature ceramics and resins in a water-borne, nonflammable formula. It is used as an insulation coating to reduce surface heat on pipes carrying hot liquid, gas or steam.

HPC™ Coating is designed to coat surfaces that sustain temperatures between 350°F (176°C) and 878°F (470°C) and able to coat during operation.

HPC™ Coating prevents the loss of conductive heat off the pipe and vessel surfaces. By blocking heat loss from the interior of a pipe or vessel, HPC™ Coating will increase the overall heat of the fluid or gas within the pipe or vessel. HPC™ will hold heat in a transmission pipe for longer distances than conventional wraps.

HPC™ Coating is applied by spraying directly to operating hot surfaces that have previously been power cleaned, sandblasted or wire brushed. HPC™ Coating may be applied to vehicle undercarriages and catalytic converters to reduce heat loss for better burn. When applied to manifolds or headers, HPC™ Coating enables gas to burn more efficiently, with the probability to increase gas mileage and reduce emissions from a hotter, cleaner burn. HPC™ Coating can also retard corrosion. It is applied over all configurations to give a 100% insulation to the complete system.

HSC™ Coating

Like HPC™ Coating, HSC™ Coating is a combination of high performance, specially designed, high-temperature ceramics and resins in a water-borne, nonflammable formula. HSC™ Coating is designed to be applied by Texspray or brush for applications requiring smoother surfaces over small diameters.

HSC™ Coating is designed to coat surfaces that sustain temperatures between 150°F (66°C) and 350°F (176°C).

HSC™ Coating is applied while the surface is hot, which prevents downtime and lost production hours. HSC™ Coating can be applied over valves and elbows where wraps cannot be effectively applied.

HSC™ Coating prevents the loss of conductive and radiant heat from surfaces. By blocking heat loss from the interior of the surface, pipe or vessel, HSC™ Coating will increase the overall heat of the fluid or gas within the pipe or vessel.
Omega Fire™ is a blend of eight ceramics, combined together to create a heat block (fire wall) that resists heat migration and fire. Omega Fire™ is a water-based coating that dries tough and is designed to withstand temperatures of 2000°F without collapse or failure.

During a fire, the ceramics in Omega Fire™ will cause the subsurface to harden and block the flame and repel the heat transfer. Because the heat is controlled, the adhesion side of the coating will remain flexible and the coating will not crack or fall off when the structure expands or contracts.

Omega Fire™ is fungus and mildew resistant. It offers a resin blend to form a tight surface. It stops the corrosive effect of moisture and air from penetrating a coated surface.

Omega Fire™ can be applied to any clean, dry interior surfaces that are free of wax, grease and oil. Omega Fire™ can be used on metal, concrete, stucco, plasterboard, wood, plastic and composite surfaces and on ceilings and walls for fire protection.

The combination of HPC and Omega Fire™ gave a result of 7+ hour rating.

Omega Fire™ has been tested for fire endurance under UL testing for 165 minutes and ASTM E119 testing for 185+ minutes (over metal plate - test was stopped without failure of coating).

The combination of HPC and Omega Fire™ gave a result of 7+ hour rating.

SP Ceramic Stucco is a mixture of high-performance ceramics and acrylics specially blended for breathability, adhesion, flexibility, texture and toughness. Added into the formulation is a lightweight aggregate compound to insure a stucco texture surface but with the added characteristics not found in standard dry mix ratios of stucco. It is not affected by water or moisture-penetration, and is designed to adhere for a long bonding life. It will not crack and peel. It is UV-protected for long life and durability against weathering whether in hot or cool climates or under high humidity or very dry. It is tough and durable to provide years of service and added beauty.

SP Ceramic Stucco was designed to coat a variety of surface structures on metal, wood, stone, concrete, fiberglass or composites. It breathes, and unlike standard stucco, it can flex with the substrate without cracking—giving years of maintenance-free service. Due to the blend of ceramics and acrylics, SP Ceramic Stucco will not allow water to penetrate that can affect and damage substrates. It has added mildecide in the formula to guard against the growth. When top coated with Super Therm® for insulation, the surface provides an insulating effectiveness equal to an RE-19 on exterior walls and will not detract from the stucco texturing.
For over 20 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 5000
- HPC® Coating
- HSC® Coating
- Omega Fire™
- Moist Metal Grip
- Lining Kote
- Super Base HS
- Epoxotherm
- Total Seal
- Aqua Pox
- SP Ceramic Stucco
- Sunshield
- SP Primer
- SP Liquid Membrane
- HSC® 1000

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