

# SUPER THERM

Super Therm® is a ceramic based, water-borne, insulating coating, designed to reflect heat and reduce energy costs. Super Therm® is the most effective and longest lasting ceramic coating on the market.



## DESCRIPTION

Super Therm® is a water-borne combination of high- performance aliphatic urethanes, elastomeric acrylics, and resin additives which produces a tough, yet flexible coating film. Designed for performance and durability, Super Therm® contains 4 unique ceramics to block up to 95% of Solar Heat entering a structure due to Visual Light, Ultra Violet (UV), and Infrared (IR). Super Therm® is a flexible membrane with low permeability that can greatly reduce expansion and contraction of a roof. It also prevents corrosion and surface deterioration.

## BENEFITS

- Reflects over 95% of the radiation from the sun.
- Energy savings of 20-70% for air-conditioned buildings during the warmer months. Greater savings can be seen with cooler buildings and freezers.
- Relatively thin. Only the thickness of a business card, but has been favourably tested in labs and in the field against batt insulation
- Reflects 68% of sound waves that contact it.
- Class A fire rating. In case of fire, Super Therm® will help to prevent spread of, and will not contribute to, the burn.
- Prevents mold and mildew growth.
- USDA approved for use in and around food preparation areas.
- Environmentally friendly.
- Long life - 20+ years lifespan on roofing under normal conditions.

## USES

- Industrial and Commercial
- Reduces energy costs and increases comfort by coating roofing and interior or exterior walls to keep heat in during winter or heat out during the summer.
- Insulate freezers or refrigeration units to protect goods and reduce costs.
- Reduce fuel consumption with refrigerated trucks.
- Protect goods by insulating long haul trailers designed to carry perishables.
- Insulate oil and gas storage tanks to prevent evaporation and heat build-up.
- Insulate hot pipes against heat loss and personal injury.
- Reduce risk of condensation on cold water pipes.
- Insulate air conditioning unit outer casings to prevent reductions in efficiency due to heat build up inside the housing.



## APPLICATION

Super Therm® can be applied to metal, concrete, masonry and wood. The application can be by spraying, brush or roller. For specific instructions on surface preparation, mixing and application, please refer to the SPI's application instructions for Super Therm®. This coating should never be applied at less than 16 mils wet (400 microns), 10 mils dry (250 microns), each coat.

## PHYSICAL DATA

- Solids: By weight 63.6% / By Volume: 65%
- 30-60 minutes to tack free at 70F (210)
- Overcoat: 2 hours when 70F (210) at 40% Relative Humidity
- Full Cure: 21 days
- Lead and chromate free
- Cures by evaporation
- Weight: 11.88 lbs. per gallon
- Vehicle Type: Urethane/Acrylic blend
- Shelf Life: Up to 3 years if unopened under appropriate storage conditions (See MSDS).
- VOO Level: 21 grams/liter
- Viscosity: 105 - 110 KU;
- pH: 8.5 - 9.0
- Maximum Surface Temperature when applying: 150 F (650)
- Minimum Surface Temperature when applying: 40F (50)
- Maximum Surface Temperature after curing: 300F (1490)

## TESTS AND CERTIFICATIONS

1. Exterior insulation against Solar Radiation - benefit comparable to R 19
2. (Guarded hot box; ASTM O236)
3. Blocks 99.5% of infrared / up to 68% sound blockage
4. Factory Mutual approval
5. IOO-ES Legacy Approval
6. UL (Underwriters Laboratory) approved
7. Flame Spread Test (ASTM E84; 0 smoke, 0 flame)
8. Class "A" Flame Spread
9. Marine Approvals: - American Bureau of Shipping; USOG; IMO; DNV;
10. USDA Approved
11. Flexibility (ASTM E1737): 180 degree bend - passed
12. Adhesion (ASTM B3359): Rated a 5B
13. Perm Rating (ASTM E96): 8.8 average
14. Abrasion Resistance (ASTM D4060): 3,000 cycles
15. Resistance to Salt Spray: 2,000 hours
16. Resistance to Wind Driven Rain (ASTM E514)

## PROJECTS



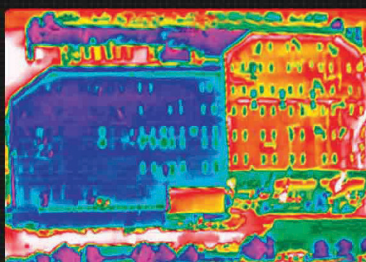
Water Tanks - Honduras



Telecom Containers - Turkey



Pasta Factory - United States



Pasta Factory - United States [IR Image]