



SUPER THERM[®]

Technical Data Sheet (2/17/09)

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.

TYPICAL USES

- As a one-coat insulation system on exteriors to block the migration of Solar Heat gain. (roofs and side walls)
- As an insulation system for interior applications.
- As insulation for transportation vehicles, refrigerated containers, reefer trucks, and railroad cars when applied to the exterior.
- Exterior application to reduce or eliminate condensation on HVAC systems, tanks, spheres, storage systems, and concrete walls.
- As a system over metal, concrete, masonry, and wood to stop moisture penetration and corrosion.
- Ability to resist dirt, mold, mildew, and pollution to increase longevity, and reduce surface maintenance.
- As a topcoat over metal roofs, or an intermediate coat on flat roofs.

APPLICATION METHODS

SUPER THERM[®] can be applied to metal, concrete, masonry and wood. The application can be spray, 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.

TESTS AND CERTIFICATIONS (partial list)

1. Exterior insulation against Solar Radiation - benefit comparable to R 19
2. (Guarded hot box; ASTM C236)
3. Blocks 99.5% of infrared / up to 68% sound blockage
4. Factory Mutual approval
5. ICC-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; USCG; 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)

PHYSICAL DATA

- ◆ Solids: By weight 63.6% / By Volume: 68%
- ◆ 30-60 minutes to tack free at 70F (21C)
- ◆ Overcoat: 2 hours when 70F (21C) 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).
- ◆ VOC Level: 21 grams/liter
- ◆ Viscosity: 105 – 110 KU;
- ◆ pH: 8.5 – 9.0
- ◆ Maximum Surface Temperature when applying: 150 F (65C)
- ◆ Minimum Surface Temperature when applying: 40F (5C)
- ◆ Maximum Surface Temperature after curing: 300F (149C)

SAFETY PRECAUTIONS

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: proper ventilation, use of proper lamps, wearing of protective clothing and masks, tenting, and proper separation of application areas. For more specific safety procedures, please refer to the SUPER THERM[®] Material Safety Data Sheet. **KEEP OUT OF REACH OF CHILDREN.**

LIMITATION OF LIABILITY: The information contained in this data sheet is based upon testes that we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the products made by SPI, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge is reliable. The products and information are designed for users having the requisite knowledge and industrial skills, and the end-user has the responsibility to determine the suitability of the product for its intended use.

SPI has no control over either the quality of condition of the substrate, or the many factors affecting the use and application of the product. Therefore, SPI does not accept any liability arising from loss, injury, or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The information contained in this data sheet is subject to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and the user has the responsibility to ensure that this sheet is current prior to using the product.