



# SUPER THERM<sup>®</sup> FABRIC

## Technical Data Sheet (05/19/10)

### DESCRIPTION

SUPER THERM<sup>®</sup> FABRIC is a water-borne combination of high-performance elastomeric acrylics, and resin additives which produces a flexible coating film. Designed for application directly to fabric or coated onto thread prior to weaving, SUPER THERM<sup>®</sup> FABRIC contains 4 unique ceramics to block up to 95% of Solar Heat due to Visual Light, Ultra Violet (UV), and Infrared (IR). SUPER THERM<sup>®</sup> FABRIC is a flexible membrane with low permeability.

### TYPICAL USES

- Clothing
- Tents
- Specialized fire resistance
- Moisture barrier
- Thermal ability in heat and cold
- Helps to regulate body temperature

### APPLICATION METHODS

SUPER THERM<sup>®</sup> FABRIC can be applied by spray cutter bar or dipping. Manufacturing processes are established according to needs for applying the coating to the threads or finished cloth.

### TESTS AND CERTIFICATIONS (partial list)

1. Comparable to an R19 effect
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 62.83% / By Volume: 67.48%
- ◆ 30-60 minutes to tack free at 70°F (21°C)
- ◆ Can run through oven to aid in drying
- ◆ Full Cure: 10 days complete
- ◆ Lead and chromate free
- ◆ Cures by evaporation
- ◆ Weight: 11.88 lbs. per gallon
- ◆ Vehicle Type: 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 Facing Temperature when applying: 400°F (204°C)
- ◆ Minimum Surface Temperature when applying: 40°F (5°C)
- ◆ Maximum Surface Temperature after curing: 300°F (149°C)

### 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<sup>®</sup> FABRIC Material Safety Data Sheet. **KEEP OUT OF REACH OF CHILDREN.**

**LIMITATION OF LIABILITY:** The information contained in this data sheet is based upon tests 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.