



THERMO-FLEX™ 1000

TECHNICAL DATA SHEET

100% Acrylic Roof Coating System

Product Description

THERMO-FLEX 1000 Acrylic Roof Coating is an acrylic elastomeric fluid-applied coating designed to enhance energy savings and water resistance, protecting assets and increasing the longevity of structures. It is also designed to extend the life of new and existing built-up asphalt, modified bitumen, asphalt shingle, single-ply, galvanized metal, concrete, and plywood roofs. TF 1000 Series withstands intense heat and ultraviolet rays in humid climates.

TF 1000 is formulated using advanced all-acrylic polymer technology for application over spray polyurethane foam applications. TF 1000 is ideal for low slope roofs with positive drainage.

Performance Characteristics

- Superior exterior durability and UV light resistance
- Seamless, fully-adhered elastomeric membrane
- Water Resistant
- Excellent dirt pick-up resistance
- Low temperature flexibility down to -15°F
- Low maintenance/renewable

PRODUCT CHARACTERISTICS

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|---|--|------------------------------|
| Standard Colors: | TF 1001 – White TF 1002 – Light Gray TF 1003 – Tan | |
| Radiative Properties: (1001 White) | Solar Reflectance - Initial: Solar Reflectance - Aged: Thermal Emittance - Initial: Thermal Emittance - Aged: | 0.86 0.76 0.90 0.91 |
| Solar Reflective Index: (1001 White) | SRI - Initial: SRI - Aged: | 109 88 |
| Radiative Properties: (1002 Light Gray) | Solar Reflectance - Initial: Solar Reflectance - Aged: Thermal Emittance - Aged: | 0.85 0.78 0.89 |
| Radiative Properties: (1003 Tan) | Solar Reflectance - Initial: Solar Reflectance - Aged: Thermal Emittance - Aged: | 0.85 0.78 0.89 |
| DFT: | 4-6 hours | |
| Tack Free: | 12 hours | |
| Recoat Window: | 12 hours | |

Application Equipment

TF 1000 may be applied by medium nap rollers, brushes, or conventional or airless spray equipment. Airless spray application is the most efficient method, while rolling or brushing may be best for touch-ups, flashing and edge terminations, or to fill voids, pinholes, holidays, or cracks. Airless Spray Equipment: capable of maintaining a minimum of 0.027" or greater orifice tips with 2,300 PSI at the tip. Filter screens should be thirty-mesh or larger. Roller: 1¼" nap. Brush: synthetic filament.

Contact Huntsman Building Solutions Technical Service personnel for specific recommendations, pricing and availability of spray and auxiliary equipment.

PHYSICAL PROPERTIES

| Properties | Test Method/Requirements | Value |
|-------------------|--------------------------|---|
| Tensile Strength: | ASTM D 2370 | 290psi (±25) |
| Elongation: | ASTM D 2370 | 153% (±25) |
| Adhesion: | ASTM C794-D 903 | 4.9 pli PUF(wet) 6.0 pli Galv. Steel (wet) |
| Weathering | ASTM D4798 | No Cracking |

| | | |
|-----------------------|----------------|------------------------|
| Permeability: | ASTM D 1653A | 21 U.S. Perms @ 20mils |
| Tear Resistance: | ASTM D 624 | 15.8 kN/m |
| Solids by Weight: | ASTM D 1644 | 63.5% (±3) |
| Solids by Volume: | ASTM D 2697 | 54.2% (±3) |
| Weight per Gallon: | ASTM D 1475 | 10.7 (± .2) |
| Theoretical Coverage: | 13-14 dry mils | 1.5 gallons |
| Viscosity (cps): | ASTM D 562 | 23 Pa-s |

Credentials/Certifications

- UL 14353 Certified
- Cool Roof Rating Council (CRRC) Listed
- CRRC Product ID: 1001 White - 0770-0001
- Meets Federal Specification FE-TT-C 555B
- Energy Star Approved
- Title 24 Compliant
- Meets ASTM D6083

Surface Preparation & Priming

Apply only to roofs with adequate positive drainage (i.e. a minimum slope of 1/4 inch per foot). This product is not intended for areas where ponding water might occur. All surfaces must be clean, dry, and sound; free of loose and peeling coatings and mastics, grease, oil, efflorescence, curing agents, form release agents, dirt, mildew and other detrimental foreign matter that will adversely affect adhesion and product performance. Make sure roof is well vented. A primer may be required subject to type and/or condition of the substrate. If surface is one which requires an application of THERMO-FLEX Primer, Consult Huntsman Building Solutions Technical Service Personnel for specific primer recommendations and substrate preparation procedures.

Application Guidelines

Apply TF 1000 directly to spray polyurethane foam on the same day as the installation whenever possible. Do not allow SPF to remain uncoated for more than 48 hours. Lower temperatures and higher humidity prolong drying and cure time. Apply only when air, surface, & product temperature is above 55°F. DO NOT apply when temperatures may drop below the dew point or below 40°F within 6 hours after application. Apply first coat of TF 1000 over clean, dry surface. After a curing period of approximately three to eight hours (depending on humidity and temperature) apply second coat. Avoid application late in the day when dew or condensation is likely to form or when rain is expected. It is recommended that TF 1000 be applied in multiple coats and in multi-directional (north-south, east-west) passes to ensure uniform film build. Backrolling sprayed material may be necessary to fill pinholes in substrate. Final cured dry film thickness must be free of voids, pinholes, holidays, cracks or blisters. Apply a minimum of 2 coats of TF 1000 with each coat at a maximum rate of 1.5 gallons per 100 square feet, resulting in a total minimum coating rate of 3 gallons per 100 square feet. You may apply additional coats of up to 1.5 gallons per 100 square feet as needed to achieve the desired final coating thickness. The minimum allowable dry mil thickness should be no less than 24 mils.

If desired, granules may be broadcast into the final coating application at a rate of 35 – 40 pounds per 100 square feet. After application, do not allow any foot traffic on the coated surface for 24 - 72 hours, depending on curing conditions. This time is required to ensure proper curing and setting of the coating.

Clean Up:

Promptly clean hands, tools, and equipment with warm soapy water.

Product Handling:

Some separation may occur during shipment and storage, therefore the contents of each container should be thoroughly power mixed for ten (10) to fifteen (15) minutes before application. Product should never be thinned. TF 1000 is a water-based elastomeric acrylic coating which will freeze and become unusable at temperatures below 32°F.

PROTECT FROM FREEZING DURING SHIPMENT AND STORAGE

Do not store material at temperatures below 32°F.

Shelf Life:

One year from manufactured date when stored properly.

Packaging:

U.S. MEASURES: 5-gal. pails, 55-gal. drums & 275-gal. totes.

WEIGHT PER U.S. GALLON: 10.7 lbs.

Limitations:

Do not use on surfaces demonstrating hydrostatic or high vapor pressure. This product is not intended for use in areas where ponding water may be present. Ponding water issues must be eliminated prior to the application of this coating.

General Health & Safety Precautions:

This product is intended for use by trained professional personnel. Material Safety Data Sheets are available on this coating material. Any individual who may come in contact with these products should read and understand the M.S.D.S. In case of emergency contact CHEMTREC EMERGENCY NUMBER at 800-424-9300.

WARNING: Avoid eye contact with the liquid or spray mist. Applicators should wear protective clothing, gloves and use protective equipment on face, hands and other exposed areas.

EYE PROTECTION: Safety glasses, goggles, or a face shield are recommended.

SKIN PROTECTION: Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing.

RESPIRATORY PROTECTION is MANDATORY! Respiratory protective equipment, impervious foot wear and protective clothing are required at all times during spray application. Contact Huntsman Building Solutions for a copy of the Respiratory Protection Program developed by OSHA.

INGESTION: Do not take internally. Consider the application and environmental concentrations in deciding if additional protective measures are necessary.

DISCLAIMERS

The data presented herein is not intended for use by non-professional applicators, or those persons who do not purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer. All guarantees and warranties as to products supplied by Huntsman Building Solutions, shall have only those guarantees and warranties expressed in writing by the manufacturer. The buyer's sole remedy as to any material claims will be against the applicator of the product. The aforementioned data on this product is to be used as a guide and is subject to change without notice. The information herein is believed to be reliable, but unknown risks may be present. NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING PATENT WARRANTIES OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR USE, ARE MADE BY HUNTSMAN BUILDING SOLUTIONS WITH RESPECT TO OUR PRODUCTS OR INFORMATION SET FORTH HEREIN.

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Meets California Title 24 Requirements