



THERMO-FLEX™ 1000QS

TECHNICAL DATA SHEET

100% Acrylic Roof Coating System

Product Description

THERMO-FLEX 1000QS Acrylic Roof Coating is an acrylic elastomeric fluid-applied coating designed to enhance energy savings and water resistance protecting the assets and increase the longevity of the structure. 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 Quick Set Series withstands intense heat and ultraviolet rays in humid climates. Use Thermo-Flex 1000QS (Quick Set) formula before or after light rain occurs or in high humid circumstances.

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

Performance Characteristics

- Superior exterior durability and UV light resistance
- Severe Hail Rated with LPA Roofing Foam and Coating System
- Seamless, fully-adhered elastomeric membrane
- Water Resistant
- Excellent dirt pick-up resistance
- Low temperature flexibility down to -15°F
- UL 790 Approved on multiple constructions
- Low maintenance/renewable

Product Characteristics

Product Characteristics		
Standard Colors:	TF 1001QS – White TF 1002QS – Light Gray TF 1003QS – Tan	
Radiative Properties: (1001QS White)	Solar Reflectance - Initial: Solar Reflectance - Aged: Thermal Emittance - Initial: Thermal Emittance - Aged:	0.86 0.76 0.90 0.91
Solar Reflective Index: (1001QS White)	SRI - Initial: SRI - Aged:	109 88
Radiative Properties: (1002QS Light Gray)	Solar Reflectance - Initial: Solar Reflectance - Aged: Thermal Emittance - Aged:	0.85 0.78 0.89
Radiative Properties: (1003QS Tan)	Solar Reflectance - Initial: Solar Reflectance - Aged: Thermal Emittance - Aged:	0.85 0.78 0.89
DFT:	2 -3 hours	
Tack Free:	12 hours	
Recoat Window:	12 hours	

Application Equipment

TF 1000QS may be applied by medium nap rollers, brushes, or by conventional or airless spray equipment. Airless spray application is most efficient whereas rolling or brushing may be best for touch-up, flashing and edge terminations or to fill voids, pinholes, holidays or cracks. Brush: Synthetic filament. Roller: 1¼" nap. 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.

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	300psi (±25)
Elongation:	ASTM D 2370	260% (±25)
Adhesion:	ASTM C794-D 903	7.0 pli PUF(dry) 6.7 pli PUF(wet) 7.1 pli Galv. Steel (wet)
Hardness (Shore A):	ASTM D 2240	62 (±2)

Permeability:	ASTM D 1653A	24 U.S. Perms @ 20mils
Tear Resistance:	ASTM D 624	85 lbs/in. (±2)
Solids by Weight:	ASTM D 1644	67% (±3)
Solids by Volume:	ASTM D 2697	55% (±3)
Weight per Gallon:	ASTM D 1475	11.95 (± .2)
Theoretical Coverage:	13-14 dry mils	1.5 gallons
Viscosity (cps):	ASTM D 562	110 K.U. (±8)

Credentials/Certifications

- Underwriters Laboratories Inc. (UL 790) Approved
- Cool Roof Rating Council (CRRC) Listed
- CRRC Product ID: 1001 White - 0770-0001
- Miami-Dade County Approved
- NOA 16-0525.09, Miami-Dade County, Florida
- Energy Star Approved
- Title 24 Compliant

Surface Preparation & Priming

Apply only to roofs with adequate positive drainage (i.e. a minimum slope of 1/8 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 TF Primer, Consult Huntsman Building Solutions Technical Service Personnel for specific primer recommendations and substrate preparation procedures.

Application Guidelines

Apply TF 1000QS 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 1000QS 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 1000QS 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 in a minimum of 2 coats with each coat at a maximum rate of 1.5 gallons per 100 square feet, for a total minimum coating rate of 3 gallons per 100 square feet. Additional coats of 1.5 gallons maximum per 100 square feet may be applied to obtain the desired final thickness of coating. The minimum allowable dry mil thickness shall be no less than 24 mils. Granules may be broadcast into the final coating application at a rate of 35 – 40 pounds per 100 square feet. No foot traffic shall be permitted on the finished coated surface for 24 - 72 hours depending on curing conditions after application.

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 1000QS 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: 11.65 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