



THERMO-FLEX™ 500

TECHNICAL DATA SHEET

100% Acrylic Roof Coating System

Product Description

THERMO-FLEX 500 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. TF 500 Series withstands intense heat and ultraviolet rays in humid climates.

TF 500 is formulated using advanced all-acrylic polymer technology for application over spray polyurethane foam applications. TF 500 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

Physical Properties	
Standard Colors:	TF 501 – White TF 502 – Light Gray TF 503 – Tan
Dry to Touch:	4 hours
Tack Free:	12 hours
Recoat Window:	12 hours

Application Equipment

TF 500 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.

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.

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) 3.6 pli PUF(wet) 1.4 pli Galv. Steel (dry) 3.0 pli Galv. Steel (wet)
Hardness (Shore A):	ASTM D 2240	62 (±2)
Permeability:	ASTM D 1653A	11 U.S. Perms @ 20mils
Tear Resistance:	ASTM D 624	85 lbs/in. (±2)
Solids by Weight:	ASTM D 1644	56% (±3)
Solids by Volume:	ASTM D 2697	45% (±3)
Weight per Gallon:	ASTM D 1475	11.65 (± .2)
Theoretical Coverage:	13-14 dry mils	1.5 gallons
Viscosity (cps):	ASTM D 562	110 K.U. (±8)

Application Guidelines

Apply TF 500 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 500 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 500 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 500 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 50°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. Safety Data Sheets are available and any individual who may come in contact with these products, should read and understand the S.D.S. In case of emergency contact CARECHEM EMERGENCY NUMBER at (866) 928-0789.

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

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