



# Roof Mate HT Coating

Product Data Sheet



## PRODUCT DESCRIPTION

**Roof Mate HT Coating** (HIGH TENSILE) is a unique water-based elastomer coating utilizing the latest advances in acrylic technology for roof areas subject to heavy maintenance traffic, severe weather conditions, chemical fallout, etc. High tensile emulsion polymers are combined with reinforcing pigments and non-migrating fire retardants for superior physical properties, durability, weatherproofing, dirt and mildew resistance, ultraviolet resistance and fire retardancy. The fire retardant chemicals are permanently locked into the cured coating and will not leach out upon extended weathering. **Roof Mate HT Coating** is a "breathing" coating, allowing moisture vapor to pass through the film while remaining impervious to mass water penetration.

## WARRANTY

See applicable warranties and guarantees for complete coverage and restrictions.

## PACKAGING & SHELF LIFE

5 gallon (19 liter) pail  
54 gallon (204 liter) drum

Shelf life 18 months if unopened containers stored between 40°F and 70°F (4°C - 21°C).

## BASIC USES

**Roof Mate HT Coating** was especially developed as a superior coating for extending the life of metal, conventional built-up, modified bitumen, single-ply, and concrete roofs. Once applied, the substrate is protected from further degradation caused by normal weathering, aging and ultraviolet exposure. **Roof Mate HT Coating** forms a waterproof elastomeric seal, uniformly covering the

textured profile of various substrates. Its dense, smooth finish repels dirt and pollutants.

**Roof Mate HT Coating** is available in standard White, Tan, Light Tan and Solar Gray colors, which are certified to meet ENERGY STAR®, Cool Roof Rating Council (CRRC) and LEED reflectance and emissivity criteria. White and Light Tan also meet California Title 24 requirements.

## PHYSICAL PROPERTIES

ROOF MATE HT COATING	
Solids by Weight	62% (± 2) [ASTM D1644]
Solids by Volume	52% (± 2) [ASTM D2697]
Ultimate Tensile Strength	550 psi (± 50) (4.0 MPa) @ 70°F (21°C) [ASTM D412]
Elongation at Break	500% (± 50) @ 70°F (21°C) [ASTM D412]
Hardness	75 to 80 Shore A [ASTM D626]
Permeance	2.5 U.S. Perms @ 20 mils [ASTM D1653]
Bond Strength	Exceeds cohesive strength of coating [ASTM C794]
High Temperature Stability	No age hardening or slump up to 250°F (121°C)

VOC	<50 g/L
Dry Time For Foot Traffic Resistance	Lt Gray: 3 hours, 75°F (24 C), 50% RH @ 16 wet mils (406 microns) White: 5 hours, 75°F (24 C), 50% RH @ 16 wet mils (406 microns) [ASTM D1640] <small>*Dry times will increase with higher humidity and/or lower temperature</small>
Temperature Limits for Normal Service Conditions	-30°F to 200°F (-35°C to 93°C)
Colors	White, Tan, Light Tan and Solar Gray All other colors are custom matched by GAF for the specific application. Color chips or samples must be furnished to GAF for all custom colors.

## APPLICATION INSTRUCTIONS

**SUBSTRATE PREPARATION:** Clean and prepare surfaces to receive coating by removing all loose and flaking particles, grease, and laitance with the use of a stiff-bristle push broom and/or pressure washing. Be sure that the substrate is dry before applying the coating. Metal, asphaltic, and single-ply systems must be primed prior to application. See [gaf.com](http://gaf.com) for more details.

**MIXING:** Thoroughly mix using a power mixer for a minimum of 5 minutes prior to application. For 5-gallon (19 L) pails, use a 3" (76 mm) minimum diameter mixing blade; for 55-gallon (208 L) drum, use a 6" (152 mm) minimum diameter blade.

**APPLICATION:** Apply product with an airless sprayer, covering the surface at an even rate. Use an airless spray pump with a 1 gallon-per-minute (3.8 L/minute) output and 2,000 psi (13,790 kPa) pressure capability. Use a reversible, self-cleaning tip with orifice size 0.027"–0.039" (0.69–0.99 mm) and a fan angle of 40° to 50°. Filter screens should be 30 mesh or larger. Use a 3/8" (9.5 mm) minimum inside diameter, nylon

high pressure-type hose for lengths up to 75 ft. (23 m) from pump. For 75 ft.–200 ft. (23–51 m), use 1/2" (12.7 mm) inside diameter hose added to pump side of existing 3/8" (9.5 mm) hose to maintain pressure and delivery. Over 200 ft. (51 m), use 5/8" to 3/4" (16 to 19 mm) inside diameter hose added to pump side of existing hose. Apply at a minimum rate of 100 ft<sup>2</sup>/gallon (2.5m<sup>2</sup>/L) per coat. Apply minimum 2 coats. Each coat shall be applied in a direction perpendicular to the previous coat. Each coat must be dry and cured before an additional coat is applied. All surfaces must be uniformly coated and free from voids, pinholes, or blisters.

**APPLICATION NOTE:** Requires complete evaporation of water to cure. Cool temperatures and high humidity will slow curing.

Apply in two coats at a minimum total rate of 1.5-2 gallons per 100 ft<sup>2</sup> (.6-.8 l/m<sup>2</sup>). Consult GAF's product specifications for specific film thickness requirements to qualify for GAF's product warranty.

GAF Liquid-Applied

January 2016, supercedes April 2014

March 2015, supercedes June 2009

For technical, system, and warranty information, visit [gaf.com](http://gaf.com) or call 1-800-766-3411.

continued on next page



# Roof Mate HT Coating

Product Data Sheet

Page 2 of 3

APPROVALS	
ASTM D-6083	Tested and approved
California Title 24	Meets all Title 24 requirements
CRRC (Cool Roof Rating Council) coolroofs.org	<i>Roof Mate HT Coating White</i> Initial Solar Reflectance 0.82 Initial Thermal Emittance 0.89 Initial SRI 103 Product ID 0614-0010
Department of Energy, ENERGY STAR®	Roof Mate HT Coating White Approved
UL 790 Class A	Classified as a Class "A" spray applied foam and coating system as outlined in the UL Roofing Materials & Systems Directory and UL website
FM 4470	Factory Mutual Approved for recover over FMRC-rated BUR or insulated metal panels
Factory Mutual	Passes FM Severe Hail

## LIMITATIONS & PRECAUTIONS

**Roof Mate HT Coating** should generally not be used over cold storage tanks or buildings where a vapor barrier is required. **Roof Mate HT Coating** will freeze and become unusable at temperatures below 32°F (0°C), or when there is a possibility of temperatures falling below 32°F (0°C) within a 24-hour period after application.

**Roof Mate HT Coating** requires complete evaporation of water to cure. Cool temperatures and high humidity retard cure. Do not apply if weather conditions will not permit complete cure before rain, dew, fog or freezing temperatures occur. Do not apply in the late afternoon if heavy moisture condensation may appear during the night.

**Roof Mate HT Coating** may be applied to a wide range of clean, dry and structurally sound substrates. Slope for positive drainage is recommended for any roofing application.

Avoid breathing of vapor or spray mist. For exterior applications, approved (MSHA/NIOSH) chemical cartridge respirator must be worn by applicator and personnel in vicinity of application. Check filters frequently to ensure proper protection. If used indoors, provide mechanical exhaust ventilation. During indoor spray operations, air line masks or positive pressure hose masks must be worn. Avoid contact with eyes and contact with skin.

Adequate precautions must be taken when applying **Roof Mate HT Coating** to occupied buildings to ensure that air conditioners and ventilation units are turned off and covered to prevent vapors from entering the building. Windows should also be kept closed. Signs should be posted around the area to advise building occupants or visitors of the spray activity.

## PRODUCT ADVANTAGES & APPROVALS

**Fire Testing:** **Roof Mate HT Coating** is a UL 790 Class "A" classified coating over various polyurethane foam substrates. It also achieved a Class I rating in the FMRC fire test for Insulated Steel Deck Construction. Ratings are subject to the conditions of approval as described in the Factory Mutual RoofNav and a UL Building Materials Directory, which describes requirements of rated roof systems.

**Spread Of Flame Fire Test:** Tests were conducted in accordance with ASTM E 108 Fire Tests of Roof Coverings for Class A non-combustible deck test procedures. **Roof Mate HT Coating** achieved a Class A rating over a variety of polyurethane foams. At no time during the Spread of Flame Tests were flying brands developed or excessive lateral flame spreads observed. Refer to Factory Mutual RoofNav for listing details.

**Simulated Windstorm Classification Pull Tests:** Wind uplift tests were conducted to evaluate the ability of the deck components to resist a simulated wind uplift force without failure of the assembly. **Roof Mate HT Coating** passed the Class 1-180 wind uplift requirements over a variety of polyurethane foams. Refer to Factory Mutual RoofNav for details.

**Simulated Hail Damage Tests:** Simulated hail damage tests were conducted to evaluate the ability of the roof cover/insulation combinations to withstand a hailstorm without damage to the covering. After 10 drops of the impactor apparatus, the **Roof Mate HT Coating** showed no sign of cracking, splitting, internal separation, delamination or rupture. Refer to Factory Mutual RoofNav for details.

**Resistance To Foot Traffic:** Tests were conducted to determine the ability of the roof cover/insulation combination to resist foot traffic. After completion of the testing, the samples showed no sign of tearing or cracking. Refer to Factory Mutual RoofNav for details.

**Susceptibility To Leakage Test:** Tests were conducted to determine the resistance of the roof cover/insulation assembly to water intrusion when subjected to a 6" (15 cm) head of water above the sample as well as air pressure below the sample. After

7 days exposure, the **Roof Mate HT Coating** showed no signs of water leakage. Refer to Factory Mutual RoofNav for details.

**Low Temperature Flexibility:** **Roof Mate HT Coating** is capable of withstanding 180° mandrel bends over a 3/16" (5 mm) mandrel @ -25°F (-30°C). Federal Test Method No. 141a-6221/ASTM D522

**Resists Abusive Weather:** **Roof Mate HT Coating** will take abusive weather conditions of all types. Ice, snow, wind driven rain and sand do not penetrate its tough, dense surface under normal conditions.

**High Tensile Strength & Elongation Properties:** **Roof Mate HT Coating** achieves outstanding elongation, tensile strength and tear resistance properties, which are carefully balanced to provide optimum long-term performance. The cured film provides excellent abrasion and impact resistance to withstand extreme weather conditions and maintenance traffic. Its tight finish also exhibits excellent chemical, dirt pickup and mildew resistance.

**Bond Strength:** **Roof Mate HT Coating** achieved a 50 to 60 lb./sq. inch (.34 to .41 MPa) breaking strength when tested in the Instron Universal Testing Instrument. ASTM C297

**High Acrylic Resin Content:** Solids by volume percentage is only one measure of a coating's quality. Another basis for determining longevity of a coating is the ratio of filler pigment to polymer content. **Roof Mate HT Coating** contains lower filler pigment load and higher levels of acrylic polymer than most coatings. This high ratio of pure acrylic polymer provides long-term weather resistance. **Roof Mate HT Coating's** overall high performance is achieved through the use of elastomer acrylic polymers.

**Reduced Energy Cost:** **Roof Mate HT Coating White** stays clean to reflect the sun's heat, unlike dark colored roof substrates that retain heat and are subject to UV degradation. Roof temperatures can be reduced in excess of 50°F (28°C).

**Roof Mate HT Coating** is certified to exceed Energy Star® and CRRC requirements.



continued on next page



# Roof Mate HT Coating

Product Data Sheet

Page 3 of 3

## PRODUCT ADVANTAGES & APPROVALS

**Easy Application and Repair:** A smaller crew can do the work that used to require many, at a fraction of the cost of other roofing systems. With a **Roof Mate HT Coating** roof there is no asphalt to degrade, metal to corrode or seams to come apart and leak. It is formulated to remain flexible to -30°F (-35°C) without cracking, and is impervious to the minor ponding water associated with most roofs. When maintenance is required, the repair is easily accomplished

with the use of an acrylic caulk or touch-up with additional **Roof Mate HT Coating**.

**Colorfast:** The acrylic resins utilized in **Roof Mate HT Coating** cross-link under exterior exposure to lock in color and lock out dirt. The topcoat color remains true through years of weathering, while the tight, cross-linked surface repels dirt to remain clean and highly reflective.

## SAFETY & HANDLING

For specific information regarding safe handling of this material please refer to the Safety Data Sheet (SDS).

## CLEAN UP

Use water and United Cleaning Concentrate (UCC) or other similar detergent to thoroughly flush equipment. Purge the water from the system using Mineral Spirits or Glycol Ether. Leave the solvent in the lines and equipment until next use. It is not recommended practice to leave **Roof Mate HT Coating** in the pump or hoses.

### GAF

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*See applicable warranties and guarantees for complete coverage and restrictions.*