DESCRIPTION

High volume solids roof coating manufactured with a high quality styrene - acrylic resin. THERMOTEK Gold PLUS is a single component coating that exhibits tremendous adhesion to the substrate while providing for film build for a total roof coating system. It is ideal for use on new roofs and also as a maintenance coating system over preexisting roofing systems in sound condition.

KEY TECHNOLOGY FEATURE

Styrene - Acrylic resin

PROPERTIES:

Physical Property	Test Method (ASTM)	Value
VOC Content	ASTM D-3960	<50 g/L
Viscosity, cps	ASTM D-2196	100 KU's
Density gr/ml (lb/gal)	ASTM D-1475	11,51 ± 0.1
Appearance	INTERNAL	LIQUID
Туре	INTERNAL	Water based product
Color	INTERNAL	White
Solar Reflectance	ASTM C-1549	0.88
Solar Reflectance Index	CRRC	111
Thermal Emittance	ASTM C-1371	0.9
Solids by volume, %	ASTM D-1644	49,0 ± 1
Solids by weight, %	ASTM D-1644	63
Elongation, %	ASTM D-412	200 min
Dying time for water resistance	ASTM D-1640	8 Hour *Required time will increase depending on humidity
Total Dryingtime	ASTM D-1640	12 Hours
Tensile Strength, lb/in2 (Mpa)	ASTM D-412	200 MIN

ADVANTAGES

- Excellent waterproofing and mold protection
- High solar reflectivity; extends the life of the roof
- Contributes to a building's energy efficiency; reduction in cooling costs
- Low maintenance cost
- Greater life expectancy with maintenance and recoats
- Reduces thermal shock
- Excellent adhesion to most substrates
- Low VOC

SUBSTRATESt

- METAL
- SPRAYED POLYURETHANE FOAM (SPF)
- CONCRETE
- MODIFIED BITUMEN MEMBRANES (GRANULATED FINISH) (*)
- ACRYLIC ROOF COATINGS
- ASPHALT BUILT-UP SURFACES (*)
- ASPHALTIC ROOF SYSTEMS (*)
- STUCCO
- MORTARS

(*) Note: Requires the use of the THERMOTEK® BLEED BLOCK PRIMER to avoid yellowing/staining of the coating caused by this type of substrate.

APPLICATION TOOLS

3" paint brush, 3/8" nap woven roller, natural fiber brush and/or airless spray equipment (2000-3000 PSI-.041 Type Size, 1-3GPM)

MIXING

Mix for 3-5 min prior to use, by hand or with a mechanical mixer.

APPLICATION PROCESS

SURFACE PREPARATION

ALL ROOFS: If some areas hold excessive ponding water, they must be brought into conformance by installing proper drains. Roof surface must be clean, dry and free of any oil, grease, dirt and any other contaminants that could interfere with the proper adhesion to the substrate; wash with clean water using a power washing machine (1 ft. away). Areas of algae, mildew or fungus on the roof membrane should be treated with a solution of 1-part household bleach and 3-parts water followed by rinsing with clean water using a power washer. If the roof contains grease spills, use mineral spirits and mop thoroughly. Any existing coating must be checked for good adhesion. Any loosely adhered coating must be removed by mechanical means such as wire brushing, sand blasting or scraping. Remove all silicone caulks and sealants; elastomeric acrylic coatings and primers will not bond properly to any silicone product. Remove and replace deteriorated pipe boots and other flexible flashing materials. Ensure the substrate is structurally sound, fully cured and dry. Perform adhesion test(s) (also known as Pull Test(s)) on the primed substrate.

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Gold ⁺Plus

White Elastomeric Coating





Pull Test(s): With a brush, apply a generous coat of the THERMOTEK COATING to the surface, a minimum of 6" (15 cm) long and 3" (7.5 cm) wide. While the coating is still wet, embed a minimum of 1"-2" (2.5 cm - 5 cm) wide strip of THERMOTEK roofing mesh while leaving at least 3" of the length of the mesh uncoated. Apply a second coat of the roof coating on top of the embedded strip section. Allow 48 hours to dry before trying the pull test. Pull the uncoated end of the mesh straight up. If the pull test exhibits good adhesion, continue with the application. If the test shows poor adhesion, redo the preparation and check that the correct system is being used. The number of Pull Tests required will be one for every 1000 sq. ft, with a minimum of 2 tests per roof.

METAL ROOFS: All rusted areas shall be mechanically abraded and corroded/deteriorated metal shall be replaced. A rust inhibitor should be used before applying THERMOTEK METAL PRIMER.

MODIFIED BITUMEN / ASPHALT BUILT UP ROOFS: Remove

all the loose granules/sand with a brush and dispose of the waste (vacuum is an option for waste removal). New asphalt shall be exposed to ambient conditions for 90 to 120 days before coating. To reduce yellowing of the topcoat, use the THERMOTEK BLEED BLOCK PRIMER over the entire roof surface before applying THERMOTEK COATING. Refer to the THERMOTEK Application Guides for more detailed installation instructions specific to the substrate you are coating

PRIMING AND CRITICAL POINTS

Apply the appropriate primer to the substrate, with a brush, roller or conventional airless spray equipment.

Address all roof details, flashing areas, drip edges, cracks control joints, and all other critical points by sealing/ reinforcing them with THEMOTEK DURAMASTIC, THERMOTEK MESH and THERMOTEK COATING. **CRACKS AND SEAMS:** Apply a layer of THERMOTEK DURAMASTIC using a brush, trowel or putty knife to cover all the areas that need reinforcement. The mastic should extend at least 1" on each side of the crack. Let the mastic dry for 3-5 hours, weather dependent. Then apply a layer

of THERMOTEK COATING and embed an appropriately sized piece of THERMOTEK MESH on top. Next, apply a layer of coating, fully saturating the mesh, feathering the

coating at least 2"-3" (5 cm to 7.5 cm) past the edge of the mesh while eliminating air pockets and gaps. Allow the completed patch 6-12 hours to dry prior to proceeding to the final coating step. This process applies for cracks smaller than 3/8". For cracks bigger than 3/8" you need to repair the crack with backer rod and an appropriate sealant. EXTERNAL ACCESSORIES: Remove the accessory from the roof surface. Apply THERMOTEK DURAMASTIC to the bottom of the accessory using a brush, trowel or putty knife. Replace/refasten the accessory onto roof surface. Apply a layer of THERMOTEK DURAMASTIC onto the top edges of the accessory. Let the mastic dry for 3-5 hours, weather dependent. Then apply a layer of THERMOTEK COATING and embed an appropriately sized piece of THERMOTEK MESH on top. Next, apply a layer of roof coating, fully saturating the mesh, feathering the coating at least 2"-3" (5 cm to 7.5 cm) past the edge of the mesh while eliminating air pockets and gaps. Allow the completed patch 6-12 hours to dry prior to proceeding to the final coating step.

COATING

The THERMOTEK COATING requires (2) coats applied using a brush, 3/8" nap woven roller and/or with proper spray equipment. FIRST COAT: Apply THERMOTEK COATING perpendicular to the slope, over the entire surface. Allow to cure before applying the second coat. If the temperature is 55 °F (13 °C) or above, the cure time will be a minimum of 6 hours. SECOND COAT: Apply THERMOTEK COATING perpendicular to the first coat - in a "cross hatch" pattern. Your second coat should be aligned with the slope/drainage of the roof. Allow this last coat to dry for 12-24 hours (weather dependent) which completes the THERMOTEK Roof Coating System application.

YIELD

Yield of coating will vary significantly based on specifications and substrate type. When calculating material needs, consideration should also be given to the amount of THERMOTEK COATING required in addressing critical points. The following yields are averages for the coating step only.

SMOOTH SURFACES: Apply each coat at a rate of 1.0 -1.5 gal/100 sq. ft. (minimum 20 wet Mils per coat). **ROUGH SURFACES:** Apply each coat at a rate of 1.5 - 2.0 gal/100 sq. ft. (minimum 20 wet Mils per coat).

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On concrete roofs exceeding 1,000 sq. ft., THERMOTEK FABRIC must be used on the entire surface. In this instance, the yield will be 1.8 gal+ per 100 sq. ft. (minimum 20 wet mils per coat).

CURING TIME

THERMOTEK ROOF COATINGS

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6-12 hours per coat for rain resistance and between coats. Allow 12-24 hours for complete cure. High humidity and/or low temperatures will result in longer curing times.

PACKAGING

Pail 5.0 GAL (18.93 L), Drum 55 GAL (208.17 L), Tote 275 GAL (1,040.87 L)

STORAGE

The storage temperature should be greater than 41 °F (5 °C) and below 113 °F (45 °C). Keep only in the original container in a cool, well-ventilated and dry area, protected from the elements. Keep container tightly closed when not in use. Keep from freezing. Keep away from sources of ignition; no smoking. Protect from direct sunlight.

SHELF LIFE

Shelf life is 2 years.

COMPLIANCES / CERTIFICATIONS

• Meets the requirements of California Energy Commission Title 24, Section 118(i)

- UL Classified and Fire Rated
- Cool Roof Rating Council (CRRC) Product ID#0734-0010
- Miami Dade NOA No.: 19-1106.01

FOR BEST PERFORMANCE

Do not apply at temperatures below 50 °F (10 °C) or above 104 °F (40 °C), or if cold weather, rain or fog is expected within 48 hours of application. Use the THERMOTEK BLEED BLOCK PRIMER over asphaltic systems to prevent staining/yellowing of the final coating. Do not use in swimming pools or other submerged conditions where the coating will be exposed to strong oxidizers. For improved energy savings and extended protection, the roof should be cleaned yearly with a pressure washer (1500 PSI - 1ft away) using detergent such as TSP and water only.

