THERMOTEK®
ROOF COATINGS

RAPID DRY COATING

White Elastomeric Coating

DESCRIPTION

THERMOTEK® RAPID DRY COATING is a high-performance waterproofing coating formulated with styrene acrylic resins, which provide long-lasting elasticity, solar reflectance, durability and waterproofing properties. Formulated specifically to increase productivity on roof coating projects, THERMOTEK® RAPID DRY COATING features technology allowing it to be applied to damp surfaces, to dry rapidly (60 minutes per coat) and to not require the use of a primer on most substrates.

KEY TECHNOLOGY FEATURE

Styrene-Acrylic resin

PROPERTIES:

PHYSICAL PROPERTY	TEST METHOD	VALUE
Useful life (years)	INTERNAL	10 years
Appearance	INTERNAL	Liquid
Type	INTERNAL	Water based product
Color	INTERNAL	White
Dying time for water resistance	ASTM D-1640	1 Hour *Weather dependent
Solids by weight, %	ASTM D-1644	68.96 ± 2
Solids by volume, %	ASTM D-1644	54.50 ± 2
Elongation, %	ASTM D-412	253 min
Density (lb/gal)	ASTM D-2196	11.835
Viscosity (cps)	ASTM D-2196	18,300
Fungus Resistance	ASTM G-21	Approved
Tensile Strength, lb/in2 (Mpa)	ASTM D-2370	245.98
PH	ASTM E-70	9.17 ± 0.5
Solar Reflectivity	CRRC (Initial)	0.87
Thermal Emittance	CRRC (Initial)	0.88
Solar Reflectance Index (SRI)	CRRC (Initial)	110

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

ADVANTAGES

- Long-lasting waterproofing protection
- Extends the life of the roof
- Improves energy efficiency; reduces building's cooling costs
- Low maintenance cost
- Can be re-coated to extend the life expectancy of the roof
- Reduces thermal shock
- Excellent adhesion to most substrates
- Fast dry times (60 minutes* per coat)
- Primer not required on most substrates
- Can be applied to damp surfaces (not to be applied to ponding water areas)
- Low VOC
- High weathering and UV resistance

*Based on a film thickness of 20 wet Mils; weather dependent.

SUBSTRATES

- Metal
- Sprayed Polyurethane Foam (SPF)
- Concrete
- Stucco
- Mortars
- Acrylic roof coatings
- Modified bitumen membranes & self-adhesive roof membranes with granulated finish (*)
- Asphalt built-up surfaces (BUR) (*)
- Asphaltic roof systems (*)

(*) Note: The use of the THERMOTEK BLEED BLOCK PRIMER is recommended to avoid yellowing/staining of the coating caused by these types of substrates.

APPLICATION TOOLS

Brush, 3/8" nap woven roller or airless spray equipment (2000-3000 PSI-.041 Tip Size, 1-3 GMP).

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

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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 damp or dry (not wet). Perform adhesion test(s) (also known as Pull Test(s)) on the substrate.

Pull Test(s): With a brush, apply a generous coat of the THERMOTEK RAPID DRY 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 tests exhibit good adhesion, continue with the application. If the tests 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 RAPID DRY COATING.

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 avoid yellowing of the topcoat, use the THERMOTEK BLEED BLOCK PRIMER over the entire roof surface before applying the THERMOTEK RAPID DRY COATING.

Refer to the THERMOTEK Application Guides for more detailed installation instructions specific to the substrate you are coating.

MIXING

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

PRIMING

Primer not required on most substrates. Use the THERMOTEK BLEED BLOCK PRIMER over asphaltic systems to reduce staining/yellowing of the final coating.

REVIEW CRITICAL POINTS

Address all roof details, flashing areas, drip edges, cracks, control joints, and all other critical points by sealing/ reinforcing them with THERMOTEK DURAMASTIC, THERMOTEK MESH and THERMOTEK RAPID DRY 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 RAPID DRY 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 1-2 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 RAPID DRY 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. Repeat the coating-mesh-coating step until all edges of the accessory are reinforced (the perimeter of the accessory). Allow the completed patch 1-2 hours to dry prior to proceeding to the final coating step.

COATING

The THERMOTEK RAPID DRY COATING requires 2 coats applied using a brush, 3/8" nap woven roller and/or with proper spray equipment. FIRST COAT: Apply THERMOTEK RAPID DRY COATING perpendicular to the slope, over the entire surface. Allow to cure for a minimum of 1 hour (weather dependent) before applying the second coat. SECOND COAT: Apply THERMOTEK RAPID DRY COATING perpendicular to the first coat - in a "cross hatch" pattern.

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Your second coat should be aligned with the slope/drainage of the roof. Allow this last coat to dry for 1 hour (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 RAPID DRY COATING required for addressing critical points. The following yields are averages for the coating step only.

SMOOTH SURFACE: Apply each coat at a rate of 1.5 gal/100 sq. ft. (approximately 24 wet Mils per coat). A minimum dry film thickness (DFT) of 14 Mils per coat is required for published performance.

ROUGH SURFACE: Apply each coat at a rate of 2.0 gal/100 sq. ft. (approximately 35 wet Mils per coat). A minimum DFT of 18 Mils per coat is required for published performance.

On concrete roofs exceeding 1,000 sq. ft., THERMOTEK MESH must be used on the entire surface. In this instance:

SMOOTH SURFACE: Apply each coat at a rate of 1.8 gal/100 sq. ft. (approximately 30 wet Mils per coat). A minimum dry film thickness (DFT) of 16 Mils per coat is required for published performance.

ROUGH SURFACE: Apply each coat at a rate of 2.0 gal/100 sq. ft. (approximately 35 wet Mils per coat). A minimum DFT of 18 Mils per coat is required for published performance.

DRYING TIME

1 hour 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)

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.

CLEAN UP

Clean application tools and equipment with clean water. DO NOT USE SOLVENTS.

MAINTENANCE

For improved energy savings and intended performance of the system, the coated roof should be cleaned yearly with a pressure washer (1500 PSI - 1 ft away) using detergent such as TSP and water only.

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 reduce 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.

COMPLIANCES / CERTIFICATIONS

- Cool Roof Rating Council (CRRC)

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⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

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