

## Architectural & Protective Coatings

| As of 05/30/2018, Complies with           |     |                               |
|---|-----|-------------------------------|
| SCAQMD                                    | YES | LEED V4 BD+C New Construction |
| CARB                                      | YES |                               |
| CARB 2007                                 | YES | SUSTAINABLE SITE INCLUDES     |
| OTC                                       | YES | HEAT ISLAND REDUCTION         |
| OTC PHASE II                              | YES | LEED V4 INNOVATION            |
| CANADA                                    | YES |                               |
| CRRG 16 STANDARD COLORS ENERGY STAR RATED |     |                               |

# REFLECT-TEC® HEAT REFLECTIVE ROOF & WALL COATING



### DESCRIPTION

REFLECT-TEC® is a high-performance roof and wall coating system formulated to withstand the harshest climates while offering high solar reflectivity and emissivity so that roof surfaces stay cooler. This water based Kynar Aquatex® / acrylic coating is breathable, yet offers superior resistance to UV, rain, wind, dirt, mold and mildew. REFLECT-TEC® reduces the amount of heat transfer into buildings by reflecting away the sun's infrared energy. This highly reflective coating can reduce peak cooling loads by as much as 25%, even in darker colors. Available in a semi-gloss finish.

### APPLICATION: ROOFS

**Installation:** TEX-COTE® REFLECT-TEC® can be applied by brush, roller, or commercial grade airless sprayer such as Graco 5900 or equal with tip size .013 to .015.

**Surface Preparation Roof Surfaces:** All surfaces must be sound, clean, dry, and free of contamination such as mildew, dirt, grease, oils, chalk and any other contamination that may affect adhesion prior to application of the TEX-COTE® REFLECT-TEC® system. All loose, flaking or oxidized paints shall be removed from surface by hand scraping, sanding and wire brushing and/or by use of power tool cleaning methods such as electric sanders, grinders, etc. Remove any dust, dirt, grease, oils, waxes, mildew, loose rust, mill scale, rust deposits or any other surface contaminants from surfaces by hand or power tool cleaning according to SSPC-SP2 or SSPC-SP3 standards.

**WARNING!** If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN

### FEATURES

- Advanced resin system.
- Offered in a wide range of heat-reflective colors.
- Mildew and dirt resistant finish.
- Resists rain, wind, ice, and snow.
- Superior fade resistance in all colors
- Flexible and breathable film.

### BENEFITS

- Total Solar Reflectance (TSR) Values exceed Energy Star and Title 24 standards for steep-sloped roofs in all standard colors.

### RECOMMENDED OVER

- Cement, Clay and Metal S-style roofing tiles where refinishing is necessary.
- Flat and standing seam metal roof and vertical metal wall surfaces where refinishing is necessary. Metal doors, canopies, and other ornamental metal surfaces.
- Masonry vertical wall surfaces when applied over approved primers
- Vinyl and cement board siding
- NOT intended for flat roof applications.
- NOT intended to be used for waterproofing purposes.
- NOT for use over glazed roofing tiles.

CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to [www.epa.gov/lead](http://www.epa.gov/lead).

**Mold, Mildew & Fungi:** Surface area affected by mold, mildew and fungi should be thoroughly hand scrubbed with a soft to medium bristle scrub brush and a solution of one cup Tri-Sodium Phosphate or a no-ammoniated detergent cleaner mixed with one part household bleach and three parts warm water, per gallon solution. Allow solution to stand on the affected surface areas for 10 - 20 minutes then rinse thoroughly with clean water and allow 24 - 48 hours to dry. Avoid contact with skin and eyes. Protect skin and eyes by wearing rubber gloves and eye goggles when working with bleach solution.

**Priming is required on all surfaces prior to application of the REFLECT-TEC® System.**

**Priming: Previously Painted / Baked on Metal Finished.** TEX-COTE® METAL-PRIME™ Primer is recommended on hard, slick, or weath-

ered coatings as a bonding coat. If in sound condition, apply a test area of the primer and allow to cure overnight, then test adhesion by cross-hatch method. If adhesion is poor, then mechanical abrasion such as sanding may be necessary followed by retesting the adhesion of primer. Apply at 300-400 square feet per gallon, making sure that a white, opaque primed surface is achieved.

**Bare Metal:** TEX-COTE® METAL-PRIME™ Primer is recommended over bare galvanized, aluminum, galvalume, or cold rolled steel surfaces. All rust should be removed by sandblasting or other mechanical means. Apply at 300-400 square feet per gallon.

**Cement or Clay Roofing Tiles:** TEX-COTE® TEX-BOND™ Primer is recommended at a spread rate of 300-350 square feet per gallon, making sure that all pores are adequately sealed and a white, opaque primed surface is achieved. Two primer coats may be required depending upon the porosity of the surface.

**APPLICATION: WALLS**

**Installation:** TEX-COTE® REFLECT-TEC® can be applied by brush, roller, or commercial grade airless sprayer such as Graco 5900 or equal with tip size .013 to .015.

**Surface Preparation - Masonry:** All surfaces must be sound, clean and dry prior to application of TEX-COTE® REFLECT-TEC®. All loose, flaking or oxidized paint shall be removed from surface by sand blasting, water blasting, wire brushing or scraping. Large cracks, holes and voids must be filled in with cement patching compound which utilizes TEX-COTE®'s Stucco Bonding Agent. Texture of patch shall match existing surface. Cracks less than 1/32" shall be filled with FLEX-PATCH® compound. Cracks greater than 1/32" should be patched with cementitious patching compound.

All surfaces must be primed with HI-BUILD Primer, HI-BUILD Textured Primer, or other manufacturer approved primers for masonry surfaces. See technical data for HI-BUILD and HI-BUILD Textured Primers.

**Surface Preparation - Vinyl:** All vinyl siding, vinyl window surfaces, garage doors, flashing, and other vertical vinyl surfaces should be primed with TEX-BOND™ Primer. See technical data for TEX-COTE® TEX-

BOND™ Primer.

**Surface Preparation - Metal: Bare Metal:**

TEX-COTE® METAL-PRIME Primer is recommended over bare galvanized, aluminum, galvalume, or cold rolled steel surfaces. All rust should be removed by sand-blasting or other mechanical means. Apply at 300-400 square feet per gallon.

**Prepainted Metal:** All surfaces must be sound, clean, and dry prior to application of TEX-COTE® METAL PRIME™. All loose, flaking, or checking paint should be removed. An adhesion test is recommended prior to full application of the system. See technical data for TEX-COTE® METAL PRIME™ Primer.

**Application Rate of Finish Coats:** Coverage rates will be between 175-225 square feet per gallon (4.3 to 5.5 square meters/liter). Two coats are recommended at 350-450 square feet per gallon, depending on surface porosity and texture. Deep tone colors require application in two coats at a minimum of 300-350 square feet per gallon each. Some deep tone colors may require more product depending on the color. An actual mock-up should be done prior to application to determine proper square footage per gallon for the color chosen.

Apply by spray/back-rolling recommended depending on the texture and porosity of the substrate.

**Application:** Over a dry, clean, properly prepared surface, apply the REFLECT-TEC® at the specified application rate. Application shall be at uniform film thickness over the entire wall. A wet edge shall be maintained during spraying (brushing or rolling) at all times. To prevent lap marks, avoid starting and stopping midway on walls. On large areas, two (2) people spraying simultaneously are recommended to avoid lap marks and spray patterns. If rolling on REFLECT-TEC®, with fully loaded roller, apply in vertical strokes initially, then cross roll for even film, ending with vertical strokes. To prevent lap marks, proceed as above and continue to a "natural break" such as panel edge, seam, or corner.

**Drying/Curing Times:** To touch: 2 hrs. approximately. Harness: 24 hrs. minimum. Note: After 24 hours, residual matters in film will continue to cure with additional days of drying. Times are based on ideal weather conditions.

**Clean Up:** For wet material use water to clean up. For dry material use Xylol, acetone, or methyl ethyl Ketone (M.E.K.)

**REFLECT-TEC® Application Rate:** Overall coverage rate will be between 175-225 square feet per gallon (4.9 to 5.5 square meters/liter). Two coats are recommended at 350-450 square feet per gallon each, depending on surface porosity to create a pin hole free finish. Deep tone colors require application in two coats at a minimum of 300-350 square feet per gallon each. Some deep tone colors may require more product depending on the color. An actual mock-up should be done prior to application to determine proper square footage per gallon for the color chosen. Apply by airless spray recommended. Back rolling may be required depending on the porosity of the substrate.

**REFLECT-TEC® Application:** Over a dry, clean, properly prepared surface, apply REFLECT-TEC® Heat-Reflective Finish at the specified application rate. Application shall be at uniform thickness over the entire surface. A wet edge shall be maintained during application at all times. To prevent lap marks, avoid starting and stopping midway on surfaces. Two (2) people spraying simultaneously may be required to avoid lap marks and inconsistent spray patterns.

**Clean-Up:**


Clean up wet material with soap and water; dried material with MEK or acetone.


**Best Performance**


- Surfaces shall be clean, dry, and properly prepared.
- DO NOT apply material when snow, rain, or freezing conditions are imminent. Wet conditions combined with cold temperatures may cause improper curing of product.
- Protect product from freezing.
- DO NOT apply over damp surfaces or when rain is imminent.


- Application temperature shall be between 50°F rising, and not exceeding 100°F (10°C to 38°C).
- **DO NOT APPLY OVER WATER PROOFING SEALANTS OR SILICONE BASED PRODUCTS.**
- DO NOT apply product over pure silicone sealants.
- For sealing openings such as roof seams, flashings, and joints, use a reinforced micro sealant tape such as WebSeal from

- Eternabond prior to priming.
- All joints and seams should be sealed with high performance sealant like Sikaflex-15 LM. Tighten or replace all loose or corroded fasteners and seal as necessary.
- Allow sealant to dry 24 hours prior to applying any coatings.

|  <b>TECHNICAL DATA REFLECT-TEC® Applicable Standards American Society for Testing Materials (ASTM)</b> |  |  |
|--|--|--|
| <u>Test Method</u>   | <u>Property</u>                        | <u>Result</u>  |
| AASHTO R31-09 (14)   | SALT Fog and Cyclic Weathering         | Passed—5000 Hours Total  |
| ASTM B117  | Salt Spray Resistance                  | Passed—500 Hours, Rust 9, Scribe Creep 2 mm  |
| ASTM D714  | Blistering Resistance                  | Passed—No Blistering, 10 Rating  |
| ASTM D522  | Flexibility—1/8" Mandrel Bend          | Passed—No Cracking or Splitting of Film  |
| ASTM C1549-09  | Total Solar Reflectance                | Surface wall temperature reduced up to 40 degrees Fahrenheit depending on color and geographical location as compared to commercial acrylic paint. |
| ASTM E 84  | Surface Burning of Building Material   | Meets Class A Flame Spread Index   |
| ASTM D 6904  | Resistance to Wind Driven Rain         | Passed   |
| ASTM D3363   | Pencil Hardness                        | 6B   |
| AAMA 2065-13 A5.1.1  | T-bend Flexibility                     | Passed 2T  |
| AAMA 2065-13 8.4.1   | Cross Hatch Adhesion                   | Passed   |
| AAMA 2065-13 8.5.1   | Direct Impact Resistance               | Passed   |
| ASTM D1304   | Chemical Resistance                    | Passed Waters, Alcohols, Oils, Detergents  |
| ASTM G53   | QUV-B Weathering                       | Passed 6000 Hours DE<2   |
| ASTM G7  | Florida S.45 Exposure                  | On going   |
| ASTM C1371-04a (2010)e1  | Emittance of Materials Near Room Temp. | Passed   |

|  Application | Wet MILS (Microns μ)     | Dry MILS (Microns μ)    | ft <sup>2</sup> /Gal (m <sup>2</sup> /Liter)                  |
|---|--------------------------|-------------------------|---|
| <b>Overall Coverage Rates:<br/>**2 Coats</b>  | 7-9 mils wet (178-229 μ) | 3-4 mils dry (76-101 μ) | 175-225ft <sup>2</sup> /gal (4.3-5.5 m <sup>2</sup> /Liter)   |
| <b>Minimum Per Coat</b>   | 3.5 mils Wet (89 μ)      | 1.52 mils dry (38.6 μ)  | 450 ft <sup>2</sup> /gal (11 m <sup>2</sup> /Liter) Per Coat  |
| <b>Maximum Per Coat</b>   | 4.5 mils wet (114 μ)     | 2.0 mils dry (50.8 μ)   | 350 ft <sup>2</sup> /gal (8.6 m <sup>2</sup> /Liter) Per Coat |

|  Physical Properties | Solids by Weight:<br>40-52%         | Solids by Volume:<br>33-38% | VOC: <50 grams/Liter<br>( <0.42 lbs/gal ) |
|---|-------------------------------------|-----------------------------|---|
|   | Weight per Gallon:<br>9.0-10.8 lbs. | Viscosity:<br>100-115 KU    |   |

|  Additional Product Information |                                  |
|--|----------------------------------|
| Resin Type:  | Kynar/Acrylic                    |
| Available Finishes:  | Semi-Gloss                       |
| Applications Temperature:  | 50-100°F (10-38°C)               |
| Dry Time:  | To touch: 1-2 hrs/ Recoat: 4 hrs |

**\*\* High humidity and cool temperatures will result in longer dry, recoat, and service times.\*\***

**REFLECT-TEC® High Performance Coating Standard Colors**

**TSR = Total Solar Reflectance SRI = Solar Reflectance Index**

| Color         | TSR  | SRI |
|---------------|------|-----|
| Bright White  | 0.89 | 113 |
| Florida White | 0.83 | 104 |
| Golden Wheat  | 0.73 | 90  |
| Chalk Beige   | 0.73 | 90  |
| Wheat Field   | 0.68 | 83  |
| Flint Gray    | 0.61 | 73  |
| Island Sand   | 0.58 | 69  |
| Clay Tone     | 0.55 | 65  |
| Castle Gray   | 0.48 | 56  |
| Terracotta    | 0.47 | 54  |
| Lark Green    | 0.44 | 50  |
| Cliff Brown   | 0.42 | 48  |
| Dynamic Blue  | 0.40 | 45  |
| Rich Red      | 0.38 | 42  |

**Estimated Reductions in Peak Cooling Load \*\***

Light Colors: 20-30% Savings (KWh )

Medium Colors: 15-25% Savings (KWh )

Darker Colors: 10-20% Savings (KWh )

This data is generated from the Oak Ridge National Laboratory computer simulation. These numbers are theoretical only and are based on a single family one-story residence South Florida.

**Over 573 cool colors available upon request**



The REFLECT-TEC® Systems Total Solar Reflectance (TSR) values exceed Energy Star and Title 24 Standards for steep sloped roofs in all standard colors and has been rated by the Cool Roof Rating Council (CRRG).

**VOC COMPLIANCE**

All Tex-Cote products comply with federal and state Volatile Organic Compound (VOC) rules and regulations.

**ORDER INFORMATION**

**Packaging:**

Available in 1, 5, and 55 gallon containers.

**Colors:**

Over 570 heat reflective colors. Deep tones colors incur an additional charge.

**Shelf Life:**

12 month shelf life, based on the following:

- Containers stored upright and airtight in a cool, dry place at temperature between 45° F rising to 100°F (7°C-38°C) .
- AVOID FREEZING.

- AVOID PLACING CONTAINERS IN DIRECT SUNLIGHT
- Skins formed on surface of product shall be removed prior to mixing, moving or using.

**SAFETY**

Do not breathe spray mist or dust. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

**First Aid:** In case of eye contact, flush immediately with large quantities of water for at least 15 minutes. Seek medical attention if blurring or redness continues.

**In Case of Spill:** Absorb with inert material and place into a suitable container for disposal. Dispose in accordance to the EPA

**WARRANTY**

Upon completion of application of coating in accordance with the manufacturer's recommendations, Tex-Cote® LLC will extend its limited commercial warranty for product replacement as a result of defect in the material. The manufacturer must be notified prior to the application of the coating and the application must be in compliance with the manufacturer's recommendations for installation. Tex-Cote® LLC shall have no obligation to contribute to or otherwise participate in labor or cost associated with effecting repairs. Specimen copy of material warranty is available upon request.



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Tex-Cote® shall in no event have any liability for personal injury or damages caused by any person walking on any roof surface coated with Tex-Cote® products.

\*\*Percentage of peak cooling reductions are based on models generated from the "Roof Savings Calculator" Beta Release V 0.92 Oak Ridge and Lawrence Berkeley National Laboratories. Cooling costs savings, percentage of peak cooling load and surface temperature reductions will vary based on color chosen, geographical location, climate condition and substrate type. In some climates, there may be a heating penalty. For more information, see www.texcote.com.