

PRODUCT NAME

Thermo-Cote™ Roof Coat

Insulating, Reflective & Waterproof Roof Coating



MANUFACTURER

Gemite® Products Inc.

Toll Free: 888-4-GEMITE (888-443-6483)
E-mail: techinfo@gemite.com
Web Site: www.gemite.com

USA

160-3480 East Robinson Rd.
Amherst, NY 14228
Phone 888-443-6483
Fax 888-443-6329

CANADA

1787 Drew Road
Mississauga, Ontario L5S 1J5
Phone 905-672-2020
Fax 905-672-6780

FEATURES

- Insulates & Reflects sun rays
- Conserves Energy
- Permanently Seals Moving Cracks
- Totally Waterproofs
- Excellent Elongation & Recovery at Low Temperatures
- Continuous Elongation (built into the “molecular chain”)
- Long Term Adhesion & Durability
- Fully Breathable
- Highly Resistant to Carbon Dioxide Diffusion
- Exceptionally UV Light Resistant
- Dirt Resistant = Stays Clean
- Excellent Color Stability + Unlimited Color Selection
- Easy Application = Spray or Roll
- Low Sensitivity to Substrate Moisture Content
- VOC Compliant & Not Regulated by WHIMS or TDG
- Mold Resistant

PRODUCT DESCRIPTION

Basic Use

Thermo-Cote Roof Coat is a highly insulating and reflective flexible waterproofing roof coating with very high resistance to water ponding. Thermo-Cote Roof Coat can be used over concrete, metal, asphalt roofs and over most existing roof coatings. Use Primer # 300 over concrete and Primer # 2000 over galvanized roof.

Composition and Materials

Thermo-Cote Roof Coat is a water borne coating using with ceramic micro-spheres and acrylic elastomeric emulsions, combined with inorganic extenders, pigments & additives providing mildew resistance and high durability. Thermo-Cote Roof Coat bridges over and seals substrate cracks due to its high elongation at ambient and very low temperatures. The superior durability and weathering (no-chalking, no-leaching and color stability), combined with toughness, abrasion and chemical resistance are achieved by the unique cross-linking chemistry employed in the formulation. Thermo-Cote Roof Coat is VOC compliant, highly breathable (fully releases water vapor from the substrate) and

provides a high resistance to carbon dioxide diffusion.

Limitations

Do not apply when rain is imminent. Surface and ambient temperature during and 24 hours after the application must not be less than 7°C (45°F) or above 32°C (90°F). Fresh (green) concrete or cement plaster must cure for at least ten (10) days prior to the application of Thermo-Cote Roof Coat. Must not freeze. Reflectivity varies when colors are introduced.

Health and Safety

Thermo-Cote Roof Coat is nontoxic & nonflammable. If contact with skin occurs, wash with water. Harmful if digested. Keep the product out of reach of children. **FOR INDUSTRIAL USE ONLY.** Consult MSDS for additional information.

Color

White, but other colors are also available.

Every effort is made to fill each order using the same batch number, but different batch numbers of the same color are occasionally sent to complete an order. It is the sole responsibility of the applicator to make certain that only one batch number is used on any one area.

Packaging

Thermo-Cote Roof Coat is a liquid material packaged in 20 L (5.3 USG) pails.

Yield

Primer #300: 6.0-8.0 m²/ L (244-326 ft²/ USG).

Thermo-Cote Roof Coat: 3.5-4.5 m²/ L @ 0.22-0.29 mm (143-183 ft²/ USG @ 9-11 mils) thickness per one (1) coat.

The actual coverage will depend on surface roughness, application technique and the thickness applied. The applicator must carry out a sample application to determine the actual coverage for the given substrate and application thickness.

Storage and Transportation

Shelf life of unopened containers is two years. Store in temperatures above 4°C (40°F). Must not freeze. Packaged 36 pails per pallet.

TECHNICAL DATA

Viscosity (Ford Cup)	110±10 KU
Specific Density	1.46 g/ cm ³
Solids (by weight)	71.5 %
Solids % by volume	61.2 %
Volatile	37%
VOC	38 g/ L

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07540 Fluid Applied Roofing
099700 Special Coatings

Elongation at break (ASTM D2370)	at +23°C at -21°C	230 % 85 %
Adhesion (pull-off)		
Before freeze/thaw		> 2 MPa
After freeze/thaw		>1.5 MPa
Water vapor transmission (ASTM E-96 B)		24 perms
Water Penetration Resistance	passes 160 km/hr (98 mph) wind-driven rain test over concrete block	
Accelerated Weathering (ASTM G 53-69) Fluorescent UV - Condensation Type, 2,500 hours	Excellent color retention and resistance to chalking	

INSTALLATION

Current Guide Specification and Application Instructions contain additional information specific to each application and must be followed. Contact Gemite's Technical Service for information specific to your project.

Surface Preparation

The surface to be coated must be thoroughly clean. Remove all dirt, efflorescence, loose particles, paint, cement scaling and other foreign matter which can interfere with the adhesion of the coating. Use high pressure waterblast (min. 4,000 psi), or sandblast for concrete surfaces.

A bond test must be carried out to determine that a proper adhesion (bond) can be achieved.

Primers

Primer # 300 must be used in applications of over concrete.

Primer #2000 must be used over galvanized metal roofs, and special primers may be required over rusted surfaces. Contact Gemite's Technical Service.

Crack Treatment

Small cracks have to be pre-filled by brushing Thermo-Cote into the crack before the overall application. Cracks larger than 1 mm (40 mills) must be routed out and filled with a flexible caulking. Apply a coat of Thermo-Cote Roof Coat, and place a strip of Reinforcing Fabric LW into the wet coating assuring that it is fully embedded before that application of the final coat of Thermo-Cote Roof Coat.

Treatment of Leaks and Joint (Seams)

Repair and seal all delaminations & leaks.

All joints & seams, including parapets, flashing and protrusion areas must be treated after primer application, ahead of application of *Thermo-Cote Roof Coat*.

Apply a coat of *Thermo-Cote Roof Coat* approximately 12 cm (5") wide over the joint (seam). Embed the strip of the *Reinforcing Fabric LW* into the first coat, and apply a second coat of *Thermo-Cote Roof Coat* to fully cover the *Reinforcing Fabric LW*.

Mixing

Do not add water to *Thermo-Cote Roof Coat*. Mix thoroughly, using a power drill and paint mixing paddle, before application.

Application

Thermo-Cote Roof Coat can be applied using an airless sprayer, such as Graco 10:1 President, with a min. 0.584 mm (0.023") tip, or use a short or medium nap roller. **Keep a wet edge.**

Metal Roofs

Tighten, or replace fasteners as necessary. Treat all rusted areas with a rustproofing primer. Apply a coat of *Primer #300*. Apply a coat of *Thermo-Cote Roof Coat* over all fasteners, followed by an additional coat of *Thermo-Cote Roof Coat* over the entire roof.

Concrete Roofs (Cast-In-Place, or Precast)

Apply one coat of *Primer # 300*, followed by two (2) coats of *Thermo-Cote Roof Coat*. If a large amount of cracks exist, use the *Reinforcing Fabric LW* throughout. Embed it thoroughly into the wet coat of *Thermo-Cote Roof Coat*, before the application of the second coat. In some cases, due to the porosity and roughness of the substrate, two coats of *Thermo-Cote* may be necessary. Apply the second coat as soon as the first coat is dry to touch, or within 48 hours.

Asphalt Roofs

All deteriorated areas must be repaired with a roofing membrane and rubberized asphalt. Apply one coat of *Primer # 300*, followed by one coat of *Thermo-Cote Roof Coat*.

Note: Some asphalt roofs may be deteriorated, cracked or delaminated so much that they me beyond repair, and *Thermo-Cote Roof Coat* must not be used.

Curing

Thermo-Cote Roof Coat will cure sufficiently by air drying in 12 - 24 hours, depending on temperature and relative humidity.

Clean Up

Clean tools and equipment immediately after use with water. For dry material use MEK or Xylol.

AVAILABILITY AND COST

Thermo-Cote Roof Coat is available worldwide. Contact Gemite for the name of the nearest Representative / Distributor and pricing information. When ordering, specify the color. The color suitability and pricing must be established by Gemite before order can be processed.

MAINTENANCE

None required. *Thermo-Cote Roof Coat* is self-cleaning. Surface dirt and dust can be easily cleaned using a detergent and water.

WARRANTY

A limited twelve (12) month Material Replacement Warranty is available. For complete details contact Gemite's Head Office.

TECHNICAL SERVICE

For an advice on suitability of *Thermo-Cote Roof Coat* for a specific application, specification assistance and application instructions, contact the Technical Service by e-mail: techinfo@gemite.com, or by phone USA 888-443-6483 or Canada 905-672-2020.