

PRODUCT NAME

Cem-Kote Barrier Cote 100

Multipurpose polymer modified cement waterproofing coating & bonding agent



MANUFACTURER

Gemite® Products Inc.

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FEATURES

- Superior toughness in thin section
- Adhesion to asphalt surfaces
- High abrasion resistance
- Long-term crack-resistance
- Superior freeze/thaw resistance
- Excellent salt scaling resistance
- Effective protection against high range of chemicals
- Self-curing
- Continuous water immersion possible
- Superior negative/positive waterproofing
- Water vapor retarder
- Very low shrinkage
- Will not crack on drying shrinkage
- Nontoxic
- Easy mixing and application - Sprayable

PRODUCT DESCRIPTION

Basic Use

Cem-Kote™ Barrier Cote 100 is a waterproofing & heavy-duty and high impact resistant traffic coating, with an excellent UV resistance (does not degrade). Suitable as high-traffic coating for new concrete, or for resurfacing of parking garages, industrial floors, loading docks, etc. Cem-Kote Barrier Cote 100 is used as a bonding agent for highly contaminated substrates - including oil contaminated concrete (contact Gemite Technical Service for correct procedure).

Cem-Kote Barrier Coat 100 is also used as a negative / positive side waterproofing & chemically protective coating, since it has an excellent resistance to concentrated salt solutions & alkalis.

Cem-Kote Barrier Cote 100 is an excellent water vapor retarder for concrete slabs with a high water vapor transfer, to accommodate application of non-breathable coatings (epoxy or urethane).

Dynamic (moving) substrate cracks are treated using Cem-Kote Flex ST reinforced with the Reinforcing Fabric HD or NW, prior to the application of Cem-Kote Barrier Cote 100. In some instances cracks are routed out and filled with Fibre-Patch OV.

Contact Gemite Technical Service for specification assistance. The applicator must, prior to bidding a project, confirm the details

of surface preparation, crack treatment, suitable Reinforcing Fabric HD or NW & detailing with Gemite Technical Service.

Composition and Materials

Cem-Kote Barrier Cote 100 is a 2-component system consisting of dry Comp. A and liquid Comp. B. For additional tensile strength and crack bridging the Reinforcing Fabric HD may have to be used throughout. Cem-Kote Barrier Cote 100 has an excellent bond to clean, structurally sound concrete, provides substrate crack spanning and has an excellent freeze/thaw resistance.

Limitations

Do not apply Cem-Kote Barrier Cote 100 when the temperature is expected to be below 40°F (4°C) within 48 hours, or when rain is imminent. Follow “hot concreting” procedures when applying Cem-Kote Barrier Cote 100 at temperatures exceeding 77° F (25° C).

Health and Safety

Cem-Kote Barrier Cote 100 is nontoxic. Your skin might be sensitive to hydraulic cement or the liquid additive. We recommend use of rubber gloves. Avoid contact with eyes and prolonged contact with skin. If contact occurs, flush immediately with water. Seek medical advice if irritation occurs. Harmful if digested. Keep product out of reach of children. FOR INDUSTRIAL USE ONLY. Consult SDS for additional information.

Colors

Cem-Kote Barrier Cote 100 has an industrial gray color.

Yield

Cem-Kote Barrier Cote 100 approx. coverage is 8.7 m² @ 1.6 mm (100 ft² @ 60 mils) per kit, applied in 2 coats.

Used as bonding agent it yields approx. 20 m² (200 ft²) per kit. The actual coverage will depend on surface roughness, porosity and the thickness applied.

The applicator must carry out a sample application to determine the actual coverage for the given substrate & required thickness.

Packaging

Cem-Kote Barrier Cote 100 kit consist of Comp. A - 22.7 kg (50 lb.) bag + Comp. B - 6.1 L (1.6 USG) bottle.

Storage and Transportation

When stored on pallets in a dry cool area, free from moisture the material has a 12-months shelf-life. The liquid Comp. B must not freeze. Packaged 40 kits per pallet.

Gemite Products Inc.
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TECHNICAL DATA

Modulus of Rupture (ASTM C348)	10.8 - 11.8 MPa (1,570 - 1,710 psi)
Ultimate Tensile Strength (ASTM D 412 Mod.)	4.7 - 5.3 MPa (680 - 770 psi)
Compressive Strength (ASTM C109)	44.0 -45.6 MPa (6,380 -6,610 psi)
Freeze-Thaw Resistance (ASTM C666, Procedure A)	0% weight loss after 300 cycles
Direct Tension Bond	1.2 - 2.4 MPa (170 - 350 psi) Failure in concrete substrate
Resistance to Chloride Penetration (AAH-STO T259)	no chloride penetration
Resistance to Chloride Penetration (AASHTO T277)	300-400 Coulombs
Salt Scaling Resistance (MTO Ontario, Form 1351)	accumulative weight loss, 50 cycles, 0.004g/cm ²

INSTALLATION

Mixing

Mix the dry Comp. A with liquid Comp. B using clean mortar mixer (paddle or screw), or heavy duty drill (400-600 RPM) with a suitable mixing paddle. Pour all the liquid into the mixing container and mix while gradually adding the dry material into the liquid, and mix until a smooth and lump free mix is obtained. Lumps will form if the dry material is added suddenly into the liquid. A small amount of water can be added at high ambient temperatures, if required.

Application

Remove all deteriorated, loose concrete, and all oil and grease contaminated concrete, laitance, dust, dirt and effloresce. Clean the surface using dry or wet sandblast, shotblast, or high pressure water. Proper surface preparation is essential for a successful application of *Cem-Kote Barrier Cote 100*.

Repair deeper areas using *Gem-Plast TC* or *Fibre-Patch OV*. Contact Gemite Technical Service for detailed surface preparation instructions and crack treatment.

Apply *Cem-Kote Barrier Cote 100* to a saturated, surface “damp” concrete. Spray, trowel or brush apply 1.6-2 mm (40-60 mils) thick layer in two coats. When spraying, brush each coat well, to eliminate any “pin holes”.

Reinforcing Fabric HD is used only over cracks, or throughout, depending on project. *Reinforcing Fabric NW* is used only over cracks on elevated slabs. Embed the *Reinforcing Fabric HD* or *NW* completely into the first coat, followed by the second coat to assure full cover. The second coat must be brushed to make the surface smooth & free of wrinkles. The *Reinforcing Fabric* must have 100% contact with the substrate with no air pockets, and

must be fully covered by *Cem-Kote Barrier Cote 100* - it must not protrude through the surface.

This is especially important in applications where the smooth surface is required to minimize the solids “pickup”, such as waste water treatment facilities.

The minimum applied thickness is 2 mm (80 mils), including the *Reinforcing Fabric HD*.

It is essential to use only 100% solids epoxy or urethane, when used over *Cem-Kote Barrier Coat 100*.

Curing

Cure *Cem-Kote Barrier Cote 100* by air drying for a min. 3 days prior to a continuous water exposure, or before application of non-breathable coating (urethane or epoxy).

Protect fresh applications from rain, strong wind and intense sunlight for 12 hours. When working under tarps at freezing temperatures, avoid using propane heaters. Electrical heaters must be used to prevent “carbonation” of the material.

AVAILABILITY AND COST

Cem-Kote Barrier Cote 100 is available worldwide. Contact Gemite Products Inc. for local Representative or Distributor.

MAINTENANCE

None required

WARRANTY

A limited, twelve (12) months, Material Replacement Warranty is available. Contact Gemite Technical Service.

TECHNICAL SERVICE

For technical advice on the suitability of *Cem-Kote Barrier Cote 100* for a specific application, specification assistance & application advice, contact Gemite Technical Service: USA 800-724-5944 or Canada 905-672-2020.

Short Specification

The traffic coating [waterproofing][bonding agent][water vapor retarder] will be *Cem-Kote Barrier Cote 100* manufactured by Gemite Products Inc.[USA 800-724-5944], [Canada 905-672-2020]. Use *Reinforcing Fabric HD* treatment over the cracks, or [throughout]. It must be mixed and applied according to current manufacturer's specifications and recommendations. Contact Gemite Technical Service for specification assistance, or prior to application.