

PRODUCT NAME

Cem-Kote™ Flex Plus

Flexible Cementitious Waterproofing



MANUFACTURER

Gemite® Products Inc.

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FEATURES

- Excellent flexibility at low temperatures
- Spans Substrate Cracks up to 2 mm (reinforced)
- Superior Waterproofing
- Long-Term Crack Resistance
- Excellent Salt Scaling Resistance
- Acid Rain Resistant
- Self-curing
- Allows Continuous Water Immersion
- Superior Freeze/Thaw Resistance
- Highly Breathable
- Very Low Shrinkage
- Salt Resistant
- Nontoxic
- Sprayable - Easy & Fast Application

PRODUCT DESCRIPTION

Basic Use

Cem-Kote Flex Plus is designed for waterproofing and crack spanning in thin sections when a superior flexibility, or low temperature flexibility is required. When exposed to low temperatures, and in new construction where a superior flexibility is required, *Cem-Kote Flex Plus* is reinforced with the *Reinforcing Fabric HD* throughout. In restoration of structures below grade, a strip of *Reinforcing Fabric HD* is used just over the cracks to provide bridging. In elevated slab applications a strip of *Reinforcing Fabric NW* is recommended.

Composition and Materials

Cem-Kote Flex Plus is a highly flexible, hydraulic cement based system consisting of dry Component A + liquid Component B.

Limitations

Do not apply *Cem-Kote Flex Plus* when the temperature is expected to be below 4 °C (40°F) within 48 hours, or when rain is imminent. Follow Hot Weather concreting procedures when applying *Cem-Kote Flex Plus* at temperatures exceeding 25°C (77°F). *Cem-Kote Flex Plus* is not suitable for high traffic areas.

Health and Safety

Cem-Kote Flex Plus 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 MSDS for additional information.

Color

Industrial Grey, Light Grey and White. Other colours are available on request.

Packaging

Cem-Kote Flex Plus Kit consists of dry Comp. A, packaged in 16.0 kg (35.2 lbs) bags and liquid Comp. B, packaged in 6.5 L (1.7 USG) plastic bottle. Amount of Comp. B for other colors may vary.

Yield

Cem-Kote Flex Plus yields 12.9 L (0.46 ft³), and covers approx. 8.06 m² @ 1.6 mm (86 ft² @ 63 mils) per kit, applied in two (2) coats. Special color formulations may have a slightly higher yield. The actual coverage depends on applied thickness, surface roughness, or both, and the actual coverage may be 10-20% lower. The applicator must carry out a sample application to determine the actual coverage for the given substrate & application thickness.

Storage and Transportation

When stored in dry area both Comp. A & B have a shelf life of 12 months. The liquid Component B must not freeze. Packaged 40 kits per pallet.

TECHNICAL DATA

Ultimate Tensile Strain (ASTM D 412 Mod.)	
at 20°C, non-reinforced	35-70 %
at 20°C, reinforced	40 %
Ultimate Tensile Stress (ASTM D 412 Mod.)	
at 20°C, non-reinforced	0.38-0.55 MPa (55 - 80 psi)
at 20°C, reinforced	3.1 MPa (450 psi)
Crack Spanning (Gemite ISO TP 005)	
at 20°C, non-reinforced	0.8 mm (0.032")
at 20°C, reinforced	2.5 mm (0.100")
Water Vapor Permeance, 1.6 mm thick coating, (ASTM E96 dry cup)	257 ng/Pa.s.m ² (4.49 perms)
Water Vapor Permeability, (Engelfried-Klopfer, Sd < 3 m)	S _d = 0.720 m (134 mils)
Salt Scaling Resistance (ASTM 672)	excellent
Hydraulic Impermeability (negative side) (TT-P-1411, 2 mm thickness)	water head >126ft (>38.4 m)

Gemite Products Inc.
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9 & 7

09820 Flexible Cementitious Coatings
07145 Cementitious Waterproofing

INSTALLATION

Current Guide Specification & Application Instructions contain additional information specific to each application and must be followed. The applicator must, prior to bidding a project, confirm the details of surface preparation, detailing and the use of the *Reinforcing Fabric HD* and *NW* with Gemite's Technical Service.

Surface Preparation

Remove all deteriorated and loose concrete, form release agents, oil, grease, laitance, dust, dirt and efflorescence by dry or wet sandblast, shotblast, or high pressure water using min. 5,000 psi (34.5 MPa). Repair deeper areas using *Gem-Plast TC*, or *Fibre-Patch OV*. The proper surface preparation before application of *Cem-Kote Flex Plus* is essential for a successful waterproofing.

Reinforcing Steel

Remove all loose rust from any exposed reinforcing steel and apply two coats of *Fibre-Prime* rustproofing.

Crack Treatment

All cracks must be treated using *Cem-Kote Flex Plus* and *Reinforcing Fabric HD*. Pre-fill any open cracks with *Cem-Kote Flex Plus*. Apply a thin coat *Cem-Kote Flex Plus*, 15-25 cm (6-10 in) wide over the crack. Embed a strip of the *Reinforcing Fabric HD* into the wet *Cem-Kote Flex Plus* and apply a second coat to fully cover the *Reinforcing Fabric HD*. The total applied thickness should be 2 mm (80 mils). For cracks in elevated slabs, use of *Reinforcing Fabric NW* is recommended.

Mixing

Thoroughly mix liquid Component B prior to its use. Use clean paddle, helix mortar mixer, or heavy duty drill (400-600 RPM) with a mixing paddle. Pour Component B into the mixer and gradually add the dry material into the liquid. Mix until a smooth and lump free mix is obtained. A small amount of water can be added if required at higher ambient temperatures.

Application

Apply *Cem-Kote Flex Plus* only to a Saturated Surface Damp surface. Brush apply 1.6-2 mm, (60-80 mils) thick layer in two coats. *Cem-Kote Flex Plus* can be spray-applied using a hopper gun or positive displacement (moyno or carrousel) pump using a suitable spray nozzle, with compressed air at the nozzle. When spraying, both coats must be brushed, to achieve the continuity of the coating, and eliminate pinholes. Avoid a localized "buildup", which may result in formation of plastic shrinkage cracking "mud cracking". If the "build up" accidentally occurs, use brush to spread the material out. The second coat must be applied into a wet first coat, as soon as the first coat allows the application of the second coat. The time between the coats will depend on temperature, relative humidity, surface porosity, wind, sun etc. The delayed application of the second coat could result in its de-bonding. If the first coat is left to dry overnight, clean the surface with a high pressure water 1,500-2,000 psi (10-14 MPa), and allow to dry prior to application of the next coat. Contact Gemite Technical Service for information on Gemite Peristaltic, Heavy Duty, Spray Pump.

Reinforcing Fabric

In some projects the *Reinforcing Fabric HD* may have to be used throughout. In such case, apply a thin layer of *Cem-Kote Flex Plus* first, embed the *Reinforcing Fabric HD* into the first coat and follow with the second coat. When spraying, each coat must be brushed to eliminate all "pinholes". The *Reinforcing Fabric HD* must be fully covered and must not protrude through the surface. The total applied thickness of *Cem-Kote Flex Plus*, including the *Reinforcing Fabric HD*, should be 2 mm (80 mils).

Curing

Cure *Cem-Kote Flex Plus* by air drying for a minimum of 3 days prior to a continuous exposure to water. Protect fresh applications from rain, strong wind and intense sunlight for 12 hours. When working under tarps at freezing temperatures, use electrical heaters. Avoid using propane heaters to prevent "carbonation" of the material.

Clean Up

All tools must be cleaned with water immediately after use. Cured material can only be removed mechanically.

AVAILABILITY AND COST

Cem-Kote Flex Plus is available worldwide. Contact Gemite Products Inc. for the name of the Representative/Distributor nearest you and pricing information.

MAINTENANCE

None required.

WARRANTY

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

TECHNICAL SERVICE

For technical advice on the suitability of *Cem-Kote Flex Plus* for a specific application, specification assistance and application advice, contact Gemite Technical Service at US 888-443-6483 or Canada 905-672-2020.

Short Specification

The waterproofing will be *Cem-Kote Flex Plus*, a highly elastomeric, polymer modified cement, manufactured by Gemite Products Inc. [USA 888-443-6483] [Canada 905-672-2020]. It will be mixed and applied according to the current manufacturer's specifications and recommendations. Contact Gemite Products Inc., or a local Representative for Specification Assistance and Application Instructions.