



CEM-KOTE® FLEX PLUS

Flexible Cementitious Waterproofing

FEATURES

- Excellent flexibility at low temperatures
- Substrate crack spanning, up to 2.5 mm
- Superior waterproofing (negative & positive)
- Long term crack resistance
- Excellent salt scaling resistance
- Effective protection against acid rain
- Self-curing
- Continuous water immersion possible
- Superior freeze/thaw resistance
- Highly breathable
- Very low shrinkage
- Salt resistant
- Non-toxic
- Potable water approved
- Easy mixing & application = sprayable

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. It provides an excellent negative and positive side waterproofing.

When exposed to low temperatures and in new construction where a superior flexibility is required (waste water treatment facilities), **CEM-KOTE FLEX PLUS** is reinforced with the **Reinforcing Fabric HD** throughout. In restoration, **Reinforcing Fabric HD** is used just over the cracks to provide bridging.

Composition and Materials

CEM-KOTE FLEX PLUS is a highly flexible, hydraulic cement based two-component system consisting of dry Component A and 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 precautions when applying **CEM-KOTE FLEX PLUS** at temperatures exceeding 25° C (77° F). **CEM-KOTE FLEX PLUS** is not designed for high traffic areas.

Health and Safety

CEM-KOTE FLEX PLUS is non-toxic. 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.

Colour

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

Packaging

CEM-KOTE FLEX PLUS consists of dry Component A, packaged in 16.0 kg (35.2 lb.) bags and liquid Component B, packaged in plastic containers. Component B *Industrial Grey* = 6.5 L (1.7 USG); *Light Grey and White* = 7.4 L (1.95 USG). Note: Special formulations, depending on colour, contain varying amounts of Component B.

CONTINUED ON REVERSE SIDE...

W. R. MEADOWS OF CANADA

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Yield

CEM-KOTE FLEX PLUS Industrial Grey yields 12.9 L (0.46 ft.³) and covers approximately 8.06 m² @ 1.6 mm (86.8 ft.³ @ 63 mils) per kit, applied in two (2) coats. The *Light Grey* and *White* material yields 13.8 L (0.49 ft.³) and covers approximately 8.63 m² (92.8 ft.²). Special formulations, with a higher volume of the Component B, have a higher yield, depending on specific formulation. The actual coverage will depend on surface roughness 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

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

TECHNICAL DATA

Ultimate Tensile Strain (ASTM D412 Mod.) @ 20°C, (68°F) non-reinforced @ 20°C, (68°F) reinforced	70-100% 40%
Ultimate Tensile Stress (ASTM D412 Mod.) @ 20°C, (68°F) non-reinforced @ 20°C, (68°F) reinforced	0.38-0.55 MPa (55-80 psi) 3.1 MPa (450 psi)
Crack Spanning (Gemite ISO TP 005) @ 20°C, (68°F) non-reinforced @ 20°C, (68°F) reinforced	0.8 mm (0.32") up to 2.5 mm (0.1")
Water Vapour Permeance, 1.6 mm thick coating (ASTM E96 dry cup)	257 ng/Pa.s.m ² (4.49 perms)
Water Vapour Permeability, Engelfried-Klopfer Sd <3 m	S _d = 0.720 m (134 mils)
Salt Scaling Resistance, (ASTM C672)	Excellent
Hydraulic Impermeability (negative side), (TT-P-1411, 2 mm thickness)	Water head >38.4 m (>126 ft.)

INSTALLATION

Current guide specification and application instructions contain additional information specific to each application and must be followed. The applicator must, prior to bidding a project, confirm the detailing and the use of the **Reinforcing Fabric HD** with W. R. MEADOWS 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 (27.6 – 41.4 MPa [4,000 - 6,000 psi]). Repair deeper areas using **Gem-Plast TC** or **W. R. MEADOWS MEADOW-CRETE OV**. The proper surface preparation is essential for a successful waterproofing and concrete repair using **CEM-KOTE FLEX PLUS**.

Reinforcing Steel

Remove all loose rust from any exposed reinforcing steel and apply two coats of **W. R. MEADOWS PATCH-PRIME** rust proofing.

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 of **CEM-KOTE FLEX PLUS**, 15-25 cm (6-10") 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 1.6-2 mm (60-80 mils).

Mixing

Thoroughly mix the 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 approximately 80% of the Component B into the mixer and gradually add the dry material into the liquid. Mix until a smooth and lump-free mix is obtained. Add the remaining liquid as required for a given application consistency. A small amount of water can be added, if required, at higher ambient temperatures.

Application

Apply **CEM-KOTE FLEX PLUS** to a saturated surface dry (SSD) or saturated surface damp surface. Trowel or brush apply 1.6 to 2 mm, (60-80 mils) thick layer in two coats. **CEM-KOTE FLEX PLUS** can also be spray applied using a hopper gun or positive displacement (moyno or carousel) pump with a suitable plastering spray nozzle with compressed air at the nozzle. The

hose size should be 25 mm (1”).

The second coat must be applied into a wet first coat, as soon as the first coat allows the application and brushing of the second coat. The time between the coats will depend on temperature, relative humidity, surface porosity, sun, wind, 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 pressure water [10 – 14 MPa (1,500-2,000 psi)] and let dry prior to application of an additional coat.

Reinforcing Fabric

In some projects, the **Reinforcing Fabric HD** may have to be used throughout. When using the **Reinforcing Fabric HD**, apply first a thin layer of **CEM-KOTE FLEX PLUS** by brushing or spraying. When spraying, brush each coat to eliminate all “pinholes”. Embed the **Reinforcing Fabric HD** into the first coat and follow with a second coat. 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 1.6 - 2 mm (60 - 80 mils).

Curing

Cure **CEM-KOTE FLEX PLUS** by air-drying for a minimum of three 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 must be removed mechanically.

MAINTENANCE

None required.

WARRANTY

A limited twelve (12) month material replacement warranty is available. For details, contact Technical Service.

TECHNICAL SERVICE

For technical advice on the suitability of **CEM-KOTE FLEX PLUS** for a specific application, specification assistance and application instructions, contact Technical Service at 1-800-563-3618.

Short Specification

The waterproofing will be **CEM-KOTE FLEX PLUS**, a highly elastomeric, polymer-modified cement manufactured by Gemite Products, Inc. (905-672-2020). It will be mixed and applied according to manufacturer’s specifications and recommendations. Contact our Technical Service for specification assistance and application instructions.

MANUFACTURER

Gemite Products, Inc.
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Phone: 905-672-2020
Fax: 905-672-6780

LIMITED WARRANTY

Gemite Products Inc. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

Disclaimer

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