

PRODUCT NAME

Cem-Kote™ CW Plus



ANSI/NSF Standard 61

Drinking Water System
Components



Capillary/Crystalline Waterproofing

MANUFACTURER

Gemite® Products Inc.

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FEATURES

- **Approved ANSI/NSF Standard 61- Barrier Materials**
- Negative or positive side waterproofing
- Permanently active (in-depth)
- Seals cracks up to 0.5 mm
- Fast cure waterproofing (48 hours)
- Approved for potable water tanks >10,000 USG (38 m3)
- Waterproofs highly porous concrete
- Non-flammable
- One component (add water only)
- More economical than competitive products
- Inorganic & Environment friendly
- Long working time - 30 minutes plus



PRODUCT DESCRIPTION

Basic Use

Cem-Kote CW Plus is a crystalline (capillary) in-depth waterproofing for new or existing water storage & treatment concrete structures, digesters, clarifiers and utility vaults. *Cem-Kote CW Plus* is suitable for waterproofing of retaining walls, basements, concrete slabs, swimming pools and other concrete structures.

Composition and Materials

Cem-Kote CW Plus is one component (add water only), Portland cement based coating (slurry), containing silica based materials. Under water pressure (negative or positive), the soluble silicate penetrates (due to osmotic pressure) into the substrate, where it reacts with lime and forms insoluble calcium silicate crystals which "plug" the capillary pores and waterproof the concrete while allowing the water vapor to pass.

Limitations

Cem-Kote CW Plus is a fast setting material. Under the normal conditions it should be applied within 15-30 minutes after mixing. Mix only the amount of material which can be applied within this period of time. Do not apply *Cem-Kote CW Plus* when the temperature is expected to be below 4°C (40° F) or when rain is imminent. The proper surface preparation is essential for successful bond of *Cem-Kote CW Plus*.

Health and Safety

Cem-Kote CW Plus is non-toxic and non-flammable. Your skin might be sensitive to cement. We recommend use of rubber gloves. Avoid contact with skin. If contact occurs, flush immediately with water. Seek medical advice if irritation occurs. Harmful if digested. Keep product out reach of children. FOR INDUSTRIAL USE ONLY. Consult MSDS for additional information.

Color

Industrial Grey

Packaging

Cem-Kote CW Plus Premix is a one component material packaged in 22.7 kg (50 lbs) bags.

Yield

Cem-Kote CW Plus Premix yields 13.2 L (0.47 ft³) and the theoretical coverage is 22.7 m² @ the rate of 1 kg/ m² (244 ft² @ the rate of 1.84 lbs/ yd²). The rate of application varies depending upon the actual end use, as specified.

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 rate.

Gemite Products Inc.
Revised July 2004

7 & 3

107145 Cementitious Waterproofing
103700 Concrete Restoration

Storage and Transportation

Cem-Kote CW Plus stored on pallets in a dry, cool area has a shelf-life of 12 months. Packaged 55 bags per pallet.

TECHNICAL DATA

Compressive Strength (ASTM C109 Modified)	54.7 - 59.7 MPa (7,930 - 8,660 psi)
Modulus of Rupture (ASTM C348) 28 days	6.2 - 8.3 MPa (900 - 1,200 psi)
Bond Strength with Concrete (Pull off test)	Greater than the tensile strength of the concrete substrate
Water Vapor Permeance 3 mm (1/8 in) thickness	1.8 metric perms
Hydraulic Permeability	Concrete block coated with <i>Cem-Kote CW Plus</i> withstands 156 m (500 ft) water head pressure

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 application.

Surface Preparation

Remove all loose and deteriorated concrete, laitance, dust, dirt and efflorescence. High pressure sandblast or waterblast (min. 6,000 psi) should be used.

The active water leaks must be stopped using *Fibre-Patch WP* (water plug) and deeper surface deterioration repaired with *Fibre-Patch OV* (overhead). Leave the surface of *Fibre-Patch OV* rough and wash it thoroughly with high pressure water before application of *Cem-Kote CW Plus*. *Cem-Kote CW Plus* should be applied within 48 hours after the surface repair.

Reinforcing Steel

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

Crack Treatment

Any existing cracks must be treated separately using *Cem-Kote Flex ST* or *Cem-Kote Flex Plus*.

Mixing

Mix each 22.7 kg (50 lbs) bag with approx. 5.0-6.5 L (1.3-1.7 USG) of water, depending on required consistency. Adjust the water to obtain a brushable consistency, or stiffer consistency for trowel application. Use a drill (400-600 rpm) with a mixing paddle. Gradually add the dry material into water and mix until a smooth and lump free mix is obtained. Do not over mix.

Application

Brush apply *Cem-Kote CW Plus* in two consecutive coats to achieve the specified rate of application of 0.75-1.5 kg/ m² (1.4-2.8 lbs/ yd²). No wetting is required between the coats. The recoating must be done within 1/2 to 1 hour.

When layers over 3 mm (1/8 in) are required, apply a thin layer of *Cem-Kote CW Plus* first, as a bonding agent, using a brush or broom.



Apply second, stiffer consistency, coat of *Cem-Kote CW Plus* into the wet slurry by trowel. Keep wet edge. Do not build up a layer thicker than 6 mm (1/4 in). In new construction, *Cem-Kote CW Plus* is dry-sprinkle applied onto the surface of the freshly poured slabs (after the concrete starts to reach initial set) and is power trowel finished.

Follow current manufacturer's Guide Specifications, Application Instructions and the specified rate of application.

Curing

Moist cure *Cem-Kote CW Plus* for 3 days. Protect the surface from rapid drying. When working under tarps at freezing temperatures, avoid using propane heaters. Electrical heaters should be used to prevent "carbonation" of *Cem-Kote CW Plus*.

Clean Up

All tools and equipment must be cleaned with water immediately after use. Cured material must be removed mechanically.

AVAILABILITY AND COST

Cem-Kote CW Plus is available worldwide. Contact Gemite Products Inc. for the name of the nearest Representative or Distributor and current pricing information.

MAINTENANCE

None required.

WARRANTY

A limited twelve (12) month Material Replacement Warranty is available. For details, contact Gemite's head office.

TECHNICAL SERVICE

For advice on suitability of *Cem-Kote CW Plus* for specific application, specification assistance and application instructions, contact Technical Service: USA 888-443-6483 or Canada 905-672-2020.

Short Specification

The reactive capillary/crystalline waterproofing shall be *Cem-Kote CW Plus*, as manufactured by Gemite Products Inc., [USA 888-443-6483] [Canada 905-672-2020]. It will meet all the Technical Data specified in the current *Cem-Kote CW Plus* Product Data Sheet.