

1.6 Product Delivery, Storage and Handling

- A. Deliver materials to the site in original, unopened and undamaged packaging with manufacturer's identification and labels intact.
- B. Store Cem-Kote CW Plus in a clean, dry area protected from direct sunlight, weather and other damage.
- C. Material Safety Data Sheets (MSDS) shall be available at the job site.

1.7 Alternates

Obtain written permission from the owner's representative at least ten days prior to close of tender. The alternate material must have been in use for a minimum of eight years.

1.8 Standards

- A. ASTM C 109/C 109M - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (use 2 in (50 mm) Cube Specimens
- B. ASTM C 321 - Standard Test Method for Bond Strength of Chemical-Resistant Mortars
- C. ASTM C 348 - Standard Test Method for Flexural Strength of Hydraulic Cement Mortars
- D. ASTM C 596 - Standard Test Method for Drying Shrinkage of Mortar Containing Portland cement
- E. ASTM C 944 - Standard Test Method for Abrasion Resistance of Concrete or Mortar Surfaces by the Rotating-Cutter Method.
- F. COE CRD-C 48 - Method of Test for Water Permeability of Concrete; US Army Corps of Engineers

1.9 Job Site Conditions

- A. Cem-Kote CW Plus materials must be applied within 15 to 20 minutes after mixing.
- B. Do not apply if ambient temperatures cannot be kept above 5°C (40°F) during, and for at least 48 hours before and after application, or when rain is imminent.
- C. Do not apply Cem-Kote CW Plus to frozen or frost filled surfaces.
- D. The proper surface preparation is essential for successful bond of Cem-Kote CW Plus.
- E. Protect surrounding surfaces from damage due to work of this trade.
- F. Co-ordinate installation of waterproofing with work in related sections and trades.

1.10 Warranty

- A. Warrant installed waterproofing to be free of leaks and defects for one (1) year from the date of acceptance, with the exception of structural cracks exceeding 0.3 mm (0.012 in) or wider.

2 PRODUCTS

2.1 Manufacturers

- A. Manufacturer's materials are specified by brand name and by performance requirements to establish a standard quality. The requests for substitutions will be considered, provided that the provisions regarding substitutions are followed and evidence of meeting all technical parameters specified is provided. The Engineer reserves the right to reject any material that, in his opinion, will not produce the quality of work specified herein.
- B. The following are acceptable manufacturers:

Gemite Products Inc.	
160-3840 East Robinson Road, Amherst, NY 14228	Tel. 888-443-6483
1787 Drew Road, Mississauga, ON Canada L5S 1J5	Tel. 905-672-2020
e-mail: techinfo@gemite.com	Website: www.gemite.com

2.2 Materials - General

- A. Cem-Kote CW Plus is supplied as a one component dry premix packaged in 22.7 kg (50 lbs) bags manufactured by Gemite Products Inc.

3 EXECUTION

3.1 Inspection

- A. Inspect surfaces to which Cem-Kote CW Plus will be applied.
- B. Report to owner's representative, in writing, any defects in previously prepared work or unsatisfactory site conditions. Proceed with work under this section only when such defects have been entirely corrected.
- C. Starting work under this section means acceptance of the surface and previously prepared work.

3.2 Preparation

- A. Surface Preparation: Remove all loose and deteriorated concrete, latency, dust, dirt and efflorescence. High-pressure waterblast or sandblast should be used.
- B. Surface Repair: All active water leaks must be stopped using Fibre-Patch WP (water plug) and deeper surface deterioration repaired with Fibre-Patch OV (overhead). The surface of Fibre-Patch OV should be left rough (bristle finish) and washed 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.

3.3 Mixing

- A. Mix the content of the bag, 22.7 kg (50 lbs), with approximately 4.6 – 5.0 L (1.2 – 1.3 USG) of water. Use a drill with a mixing paddle. Gradually add the dry material into the water and mix until a smooth and lump free mix is obtained. Do not over mix. Adjust the water for brushable consistency or a stiffer consistency for trowel application.

3.4 Application

- A. Cavity Fill: Prime cavities at cleaned and prepared faulty construction joints, cracks, form tie holes, etc. with waterproofing material and fill flush to surface with Fibre-Patch OV patching compound in mortar consistency.
- B. **Crack Treatment – IMPORTANT:** Any existing moving cracks MUST be treated using Cem-Kote Flex PLUS (see Cem-Cote Flex PLUS Specification for details). The alternative crack treatment method is to “open” the crack by cutting and chipping, approximately 25 mm by 25 mm (1 in by 1 in) “groove”. Clean the formed “groove” with water, apply a thin coat of Cem-Kote CW Plus and fill the crack with Fibre-Patch OV.
- C. Horizontal and Vertical Construction Joints: Prime seal strips/ reglets in pre-formed 25 x 25 mm (1 x 1 in) cavities with waterproofing material and fill flush to surface with Fibre-Patch OV patching compound in mortar consistency.
- D. Freshly Poured Slabs: Dry-sprinkle waterproofing material to freshly poured slabs at 1 kg/ m² (2.0 lb/ yd²) and power trowel
- E. Over Mud Slab/Under Finish Slab: Dry distribute to pre-watered mud slab at 1.2 kg/ m² (2.25 lb/ yd²) immediately prior to casting the structural slab
- F. Existing Slabs: Brush or spray apply waterproofing material in slurry consistency, in one coat on existing slabs.
 - 1. For standard applications, apply at rate of 1 kg/ m² (2.0 lb/ yd²)
 - 2. For applications in contact with salt or wastewater, apply at rate of 1.4 - 1.5 kg/ m², (2.5 - 2.8 lb/ yd²).
 - 3. Spread material evenly and work it well into the surface.

G. Vertical Surfaces:

1. Apply base coat of waterproofing material in slurry consistency at uniform rate of 0.7 - 0.75 kg/ m², (1.25 - 1.4 lb/ yd²). Apply using appropriate compressed-air spray equipment, stiff masonry brush or stiff broom.
2. After base coat has reached initial set but is still "green" (tacky), apply finish slurry coat of waterproofing mixture at 0.7 - 0.75 kg/ m² (1.25 - 1.4 lb/ yd²).. Apply so that final brush or broom strokes leave parallel, uniform texture.

4 CURING

- A. Moist cure Cem-Kote CW Plus for 3 to 4 days.
- B. Protect surfaces from rapid drying and rain and frost.

5 PREPARATION FOR DECORATION, COATING AND TILING:

- A. Cure surfaces, treated with crystalline waterproofing, for 4 weeks if these are to be coated, painted or tiled.
 1. At the end of the curing period, saturate surfaces with water and neutralise with a 1:8 solution of muriatic acid.
 2. Rinse waterproofed areas thoroughly with water.

6 ADJUSTING

- A. Following application and completion of related work, as required, but well prior to completion of entire project, fill tanks to capacity and allow to stand not less than 2 weeks
- B. If any leaks appear during this period, drain tanks. Notify Owner prior to draining tanks
- C. Stop leakage due to curing and shrinkage cracks by installing plugs, seal-strips and additional surface treatment at no additional cost to the Owner
- D. Following repairs re-test by refilling tank and allow standing not less than 1 week.
 1. Follow this procedure until all leakage is eliminated.
- E. Thoroughly rinse all tanks and reservoirs with water and with 100 ppm chlorine water solution.

7 CLEANING

7.1 Job Site Cleanup

All excess and waste materials are to be removed from the job site by the contractor in accordance with contract provisions. Surrounding areas where the material has been applied will be left free of debris.