

DINJER CMS-10K

Product Description

CMS-10K is a silica fume based cementitious mortar. **CMS-10K** is a specially formulated, combination of processed cement, aggregates, silica fume and nylon fibers which, when mixed with water, results in a dense, low rebound, high build mortar. The required low water to cement ratio ensures low permeability and adequate long term strengths for most applications.

CMS-10K is designed to be hand applied, shotcrete, or spin-cast applied.

Recommended Uses

Any concrete and masonry surfaces where rehabilitation of an existing structure requires enhancement of the structural integrity and /or there is a need to stop inflow and infiltration.

- Sanitary Sewers
- Clarifiers
- Lift Stations
- Digestors
- Wastewater Treatment Plants
- Water Treatment Facilities

Advantages

- **Quality controlled**- material's proportioning, mixing and packaging ensures product consistency. Every production run of product is batch coded and tested prior to shipment.
- **Trowelable and Sprayable** - trowels easily after spraying or can be trowel applied on small placements.
- **Low Permeability** - < 300 Coulombs creates an extremely dense product.
- **Sulfide Resistant**- silica fume enhancement improves chemical resistance to H₂S attack. Guaranteed at PH level >3.
- **High Build** - 2" spray, no sag – 3" trowel, no sag
- **High Performance** – strong, possessing exceptional bonding strength

Packaging & Coverage

CMS-10K is available in 50 lb. poly-lined bags – 60 bags per pallet. One 50 lb. bag (22.72kg) of **CMS-10K** yields approximately .45 cubic feet and will cover approximately 10.2 sq. ft. at ½" thickness.

IMPORTANT: STORE IN A DRY PLACE IN ACCORDANCE WITH ACI GUIDELINES.

Surface Preparation

Surfaces to receive **CMS-10K** must be cleaned of all oil, grease, rust, scale, deposits and other contaminants to insure a proper bond. Concrete and masonry surfaces can generally be prepared by low (3,500 - 5,000 psi) to high (<5,000 psi) pressure water blasting or abrasive blasting.

Excess water should then be removed by air blasting with an oil free air compressor to allow for a clean, damp surface for application of **CMS-10K**. Any hydrostatic leaks in substrate should be stopped with **DINJER STOP LEAK** or similar hydraulic cement product.

Mixing

For normal brush coat consistency mix 2.5 - 3 quarts of potable water per 50 lb. bag of **CMS-10K**. For best results mix approximately 3 to 5 minutes with a low speed mortar mixer by first adding water, starting mixer and then adding **CMS-10K** until mortar is thoroughly mixed.

Placement

Dampen all surfaces to which **CMS-10K** is to be applied to assure proper saturation. For wet process spray applications, the surface to be sprayed must be Saturated Surface Dry (SSD) and the process should start as soon as an (SSD) condition is achieved. For troweling, the surface to be troweled must be Saturated Surface Dry (SSD) and all surfaces should be primed with a slurry coat of **CMS-10K** that is loose enough to be applied with a stiff mason's brush. Scrub the slurry into the substrate and trowel on **CMS-10K** as soon as the slurry mix becomes tacky to the touch and before it dries.

For additional applications of **CMS-10K** allow first coat to completely dry before applying second coat.

CMS-10K can be wet process sprayed to a thickness of 2" vertically and 1/2" overhead in a single application. For hand troweled applications, **CMS-10K** can be applied up to 3" vertically and 1/2" thick overhead. Minimum thickness for either wet process spray or hand trowel application is 1/2" thick.

Follow cementitious manufacturer's curing recommendations before application of epoxy liner. Material is cured when able to withstand screwdriver head applied, with pressure, down side of wall with no scratching.

High performance Cementitious Liner Materials:

Cementitious Liner material shall be Dinjer CMS 10K or approved equal.

A high performance cementitious liner product specifically designed and formulated, providing a structural monolithic liner covering all interior surfaces and shall have the following minimum requirements:

CMS-10K Technical Data:

		1 Day	3 Days	7 Days	28 Days	56 Days	84 Days
ASTM C-109	Compressive Strength (71° - 50% humidity)	4300	6360	7690	8720		
ASTM C-109	Compressive Strength (75°-88° - Humidity 68%-85%)	7120	9730	10980	13020		
ASTM C-293	Flexural Strength	930		1440	1620		
ASTM C-78	Flexural Strength	800		915	1050		
ASTM C-882	Slant Shear	1400		3000			
ASTM C-1042	Bond Strength by Slant Shear 10.4% Water-Cement Ratio	820 psi		1210 psi			
ASTM C-1042	Bond Strength by Slant Shear 9.4% Water-Cement Ratio	1120 psi		1640 psi			
ASTM C-496	Splitting Tensile	602		958	1156		
ASTM	Set Time	Initial: 60 min. Final: 180 min.					
ASTM C-267	Chemical Resistance (weight change in sulfide solution)				+0.016	+0.025	+0.035
ASTM C-267	Compressive Strength				14490 psi	18767 psi	17883 psi
AASHTO T-277	Permeability	300 Coulombs					
ASTM C-1202	Rapid Chloride Permeability		340 Coulombs				
ASTM – C321	Bond Strength Of Mortar	109 psi			109 psi		
ASTM C-596	Dry Shrinkage of Mortar				0.04%		
ASTM C-672	Rapid Freeze-Thaw Resistance – 100 cycles (Scaling resistance of concrete exposed to deicing chemicals)	No surface damage after 100 cycles	No surface damage	No surface damage			

The Cementitious Liner product and the Epoxy Liner Material shall be produced by the same manufacturer, assuring material compatibility.

Manufacturer's Warranty

WBE DORCAS INC. warrants that at the time and place we make a shipment our materials will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING CUSTOM OR TRADE OR OTHERWISE. As the exclusive remedy for breach of this Warranty, we will replace defective materials, provided, however, that the buyer examine the material when received and promptly notify us in writing of any defect before the materials are used or incorporated into structure. Three (3) months after **WBE DORCAS INC.** has shipped the materials, all our Warranty and other duties with respect to the quality of the materials delivered shall conclusively be presumed to have been satisfied, all liability therefore terminates, and no action for breach of any duties may thereafter commence. **WBE DORCAS INC.** shall in no event be liable for consequential damages. Unless otherwise agreed to in writing, no warranty is made with respect to materials not manufactured by **WBE DORCAS INC.**. We cannot warrant or in any way guarantee any particular method of use of application or the performance of materials under any particular condition. Neither this Warranty nor our liability may be extended or amended by our salespeople, distributors or representatives or by any sales information or drawings.

Caution

Use of this product may be hazardous to your health. This product contains Portland cement and Silica sand. Prolonged inhalation may cause delayed lung injury including silicosis and possibly cancer. Avoid direct contact with skin and eyes. In case of contact, flush with plenty of water for at least 15 minutes. Contact a physician. Wash exposed skin areas promptly with water. Do not take internally. Keep out of reach of children. Please contact Dorcas Neathery at WBE Dorcas, Inc. for MSDS at 719.686.5988.