



CAPISEAL ADMIX

Cementitious crystalline capillary integral waterproofing additive for concrete

Description:

CAPISEAL ADMIX is a state-of-the-art Integral crystalline waterproofing admixture available in dry mix powder form. The chemistry within the CAPISEAL ADMIX reacts with moisture and free lime in the concrete, creating millions of water-insoluble nano-crystalline fibers, which fill the pores, capillary tracts and minor shrinkage cracks within the concrete. Passage of water through the concrete, either from the positive or negative water pressure side is permanently blocked and the reinforcement protected from corrosion. The CAPISEAL ADMIX chemicals remain an integral part of the concrete for the life of the structure, always re-activating whenever exposed to moisture. CAPISEAL ADMIX can seal static cracks up to 0.4 mm, CAPISEAL ADMIX waterproofing chemicals start reacting immediately. However, it may require up to several weeks to reach its maximum waterproofing capability. Environmental factors such as ambient temperature, density of concrete, moisture and weather conditions all can affect the timing of the sealing process.

Primary Applications:

- Sewage and Water Treatment Plants
- Secondary Containment Structures
- Tunnels, Subway Systems and Underground Vaults
- Foundations and Parking Structures
- Swimming Pools and Reservoirs
- Pre-Cast and Shotcreting applications

Features & Benefits:

- Resists extreme hydrostatic pressure from either positive or negative surface of the concrete slab
- Becomes an integral part of the concrete
- Highly resistant to aggressive chemicals
- Can seal hairline cracks up to 0.4 mm, and it is permanent
- Allows concrete to breathe
- Non-toxic and VOC Free
- Added to the concrete at time of batching and therefore is not subject to climatic restraints
- Reduces construction scheduling time

Technical Support:

Durabuild offers a comprehensive range of waterproofing products and coatings. In addition, Durabuild offers technical support service to specifiers, end users and contractors, as well as on-site technical assistance in locations all over the country.

Standard Compliances:

DIN 1048 (Part-5) – Water Permeability
ASTM C 1202-97 – Rapid chloride permeability
ASTM C 827 – Unrestrained expansion test
ASTM C 109 – Compressive strength

Technical Properties:

Appearance	Light Grey Powder	
Chloride content	<0.1%	
Alkali content	<10.3%	
Air content	<2.0	
Water Permeability Compressive strength	Control	CAPISEAL ADMIX
	15.0	7.9
	22.5Mpa @7days	24.9Mpa @7days
Setting time Initial	33.2Mpa @28days	35.4Mpa @28days
	6 hours 50 mins	7 hours 20 mins
Setting time Final	7 hours 15 mins	8 hours 35 mins

Application Instructions:

A. Ready Mix Plant – Wet Mix Operation

- Mix CAPISEAL ADMIX Powder with clean, potable water to a thin slurry consistency. i.e. 25kg CAPISEAL ADMIX with 16.5 Litre water.
- Pour the required amount of mixed CAPISEAL ADMIX into the drum of the ready-mix truck.
- Produce the cement, aggregate and additives as per concrete mix design in the batching plant. Take into account the amount of water already placed in the ready-mix truck
- Drop the concrete mix into the ready-mix truck.
- Mix at least 5 minutes to assure homogenous distribution of the CAPISEAL ADMIX in the concrete.

B. Ready Mix Truck - Job Site Mixing

- Mix CAPISEAL ADMIX Powder with clean, potable water to a thin slurry consistency. i.e. 25kg CAPISEAL ADMIX with 16.5 Litre water. Take into account the amount of water already placed in the ready-mix truck.
- Pour the required amount of mixed CAPISEAL ADMIX into the drum of the ready-mix truck, containing the wet concrete mix.
- Mix at least 5 minutes to assure homogenous distribution of the CAPISEAL ADMIX in the concrete.

C. Ready Mix Plant - Dry Mix Operation: Add CAPISEAL ADMIX in powder form to the drum of the ready-mix truck. Drive the truck under the batch plant and add 65% - 70% of the required water along with 165 - 215 kg of aggregate. Mix the materials for 2-3 minutes to ensure the CAPISEAL ADMIX is distributed evenly throughout the mix water. Add the balance of materials to the ready-mix truck in accordance with standard batching practices.

D. Precast Batch Plant: Add CAPISEAL ADMIX to the aggregates and sand, then mix thoroughly for 2-3 minutes before adding the cement and water. The total concrete mass should be blended using standard practices.

NOTE: It is important to obtain a homogeneous mixture of CAPISEAL ADMIX with the concrete. Therefore, do not add dry CAPISEAL ADMIX powder directly to wet concrete as this may cause clumping and thorough dispersion will not occur.

Setting time and strength: CAPISEAL ADMIX will provide a normal set concrete. Concrete containing CAPISEAL ADMIX will develop higher ultimate strengths than plain concrete. Trial mixes should be carried out under project conditions to determine setting time and strength of the concrete. Concrete treated with CAPISEAL ADMIX should be placed and finished in accordance with good concrete practices.

Placing:

Concrete containing CAPISEAL ADMIX should be placed the same way as normal concrete.

Joints and Pipe Penetrations:

Cold joints and pipe penetrations must be designed using Dura range of Waterstop. CAPISEAL ADMIX does not prevent defects in concrete. Consult Durabuildcare on particular applications. Through penetrations must be securely sealed to maintain watertightness. CAPISEAL ADMIX is designed to waterproof rigid concrete structures only and will not reliably seal cracks and joints which are subjected to variable loading or repeated movement. Contact the Durabuildcare Technical Department for project specific recommendations.

Packing:

CAPISEAL ADMIX is supplied in 25Kg HDPE moisture resistance bag.

Dosage:

0.8 -1.0% by weight of total cementitious. Consult with Durabuild Technical Department for assistance in verifying the appropriate dosage rates.

Shelf Life:

CAPISEAL ADMIX has a shelf life of 12 months if kept in a dry store in unopened condition.

Health & Safety:

CAPISEAL ADMIX crystalline waterproofing system contains chemicals that may cause irritation to the eyes and skin. Goggles, rubber gloves and long sleeves should be worn when working with these products. Read warnings noted on product package and refer to product material safety datasheet (MSDS) prior to use.

DURA BUILD CARE PVT. LTD.



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"Quality, Integrity Assured."

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