KRYSTAL 2000

Liquid Crystalline Waterproofing Admixture

PRODUCT DESCRIPTION

Krystal 2000 is a hydrophilic crystalline waterproofing admixture that is specially designed to permanently waterproof concrete. It is specifically designed for use in above and below grade concrete applications and can also be used in places where surface waterproofing membranes are applied for improved durability and longevity of concrete.

ADVANTAGES

- Protects concrete against negative water pressure
- It is a Permeability Reducing Admixture for Hydrostatic conditions (PRAH).
- Reduces permeability of the concrete.
- Helps to increase the compressive strength of concrete.
- Unlike coating, Krystal 2000 when added to concrete during mixing becomes an integral part of the concrete for optimum performance
- Self-seals hairline cracks up to 0.5mm (0.02in.)
- Protects concrete against chemical attack and corrosion of reinforcing steel.
- Certified by NSF to NSF/ANSI standard 61.
- Suitable for (CEM I,II,III) grade binder used in concreting
- Reduced concrete shrinkage and cracking.
- Excellent resistance to waterborne chemicals.
- Protection against sewage and industrial wastes.
- Suitable for concrete application for water impermeability.

AREA OF USE

- Suitable for above and below grade applications such as Foundations, underground vaults, Roof tops e.t.tc.
- Recreational facilities such as aquatic centers, aquariums, zoos, and parks.
- Concrete structural elements, such as decks, slabs, column, beams and exteriors Precast, cast-in-place and shotcrete applications.
- Concrete subjected to wet, harsh and aggressive environment
- Below grade parking structures, basements, elevator pits and foundations of high-rise towers
- Architectural water features such as fountains and waterfalls
- Water containment reservoirs, water treatment tanks, sewage and manholes
- Traffic tunnels, below grade pipelines and subway tunnels
- Bridges, dams and highway infrastructure

DOSAGING

Dosage for Krystal 2000 is typically 1-2% per weight of cement.

A. Batch plant: Add Krystal 2000 together with the mixing water to be used.

B. Concrete Truck: Add Krystal 2000 into the drum when the truck arrives at the job site. Mix for 8 minutes at high speed before pumping.

C. Site mixes: Concrete mixed in small tumbler mixes can also be improved with Krystal 2000. Add the product in the calculated amount together with the water into the mixer. Start with a semi dry mix and adjust to the desired consistency after 3 minutes of mixing at the rate of 1-2% based on weight of cement.

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TECHNICAL PROPERTIES

Packaging	20L, 210L and 1000L
Appearance	light brown
Specific gravity	~1.16 g/cm3
Chloride ion content	<0.1%
PERFORMANCE PROPERTIES 1 (OVER CONTROL)	
Compressive Strength compare to control	2% increase at 7days 4% increase at 28days
Water Permeability Reduction	90%
Shrinkage & Crack Reduction	80% reduction in shrinkage and cracks ASTM C1140
PLASTIC PROPERTIES (OVER CONTROL)	
Slump (ASTM C143)	No significant change
Plastic Density (ASTM C138)	No significant change
Air Content (ASTM C231)	No significant change

NOTE: The time taken to achieve the desired consistency is dependent on other criteria, such as the concrete formula and the reactivity of the cement used.

CURING

Follow specified curing procedures as necessary. Krystal 2000 is effective whether water curing or a curing compound is used.

STANDARD COMPLIANCE

ASTM C494 Type S Compliant

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STORAGE AND SHELF LIFE

Protect from freezing, if frozen or crystallized, thaw gradually and stir to homogenous mixture. Shelf life in unopened original containers is 12 months when stored at 70°F (21°C).

STANDARD COMPLIANCE

ASTM C494 type S Compliant

HEALTH & SAFETY

- Please ensure that hand gloves and goggles are worn during installation
- Apply in ventilated areas, away from flames
- It is only important that during application and after application, standard safety procedures are done.
- Please consult current MSDS for product.
- *For Professional Use only.*

ADDITIONAL INFORMATION

Costarchem manufactures a complete range of construction chemical products which include:

- Concrete admixtures
- Waterproofing system
- Flooring system
- Cementitious and epoxy precision grouts
- Damp-proofing products
- Sealants and adhesives
- Repair and refurbishment systems

For more information on any of our products, please contact Costarchem global or regional office.

LEGAL NOTE

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