

KRYSTALINE Add

CRYSTALLINE WATERPROOFING ADMIXTURE - DOSAGE 2%

DESCRIPTION

Krystaline Add is a specially formulated crystalline admixture used to waterproof concrete, reduce shrinkage cracks, and increase concrete durability. The secondary benefits include set retardation, air entrainment, water reduction, lower heat of hydration and increased compressive strength.

Krystaline Add is a true crystalline admixture that effectively lowers the water/cement ratio by approximately 5% subject to the design mix. Krystaline Add is designed as a replacement to specified competitive products that function based on a percentage of cement content.

FEATURES & KEY BENEFITS

- Stop water leaks in concrete
- Seals and waterproofs cracks up to 0.5 mm
- Protects reinforcing steel against corrosion
- Total and permanent waterproofing
- Waterproofing increases with time
- Gives concrete excellent resistance to attack by sulphates and chloride
- Increase mechanical strengths up to 14%
- Not affected by surface wear or abrasion
- Effective against hydrostatic pressure up to 12 bar
- Waterproofs from any direction (positive or negative side)
- Water vapor permeable
- Safe for contact with potable water
- Replaces unreliable exterior membranes, liners and coatings

TYPICAL APPLICATIONS

- Foundations
- Basement
- Tunnels
- Pipes
- Maritime projects
- Submarine works
- Elevator pits
- Concrete walls
- Concrete slabs
- Construction joints
- Marine structures
- Swimming pools
- Water treatment plants
- Channels
- Potable water tanks
- Parking structures

APPLICATION GUIDELINES

Concrete is a naturally porous material, with microcracks, voids, pores and capillaries that are formed mainly in the early stages of curing. The more interconnection between these holes, the more permeable the concrete is and the more prone to damage caused by the entry of water and corrosive agents. However, **Krystaline Add** technology virtually eliminates porosity of the concrete and many of its inherent weaknesses, which increases durability.

Krystaline Add is a hydrophilic crystallization technology that functions using a catalytic process creating a chemical reaction between the unhydrated cement particles and water, creating additional insoluble crystalline hydration which fill the concrete's capillary network. These crystal deposits become an integral part of the hydrated paste. The resulting concrete has a significantly greater ability to autogenously heal cracks and resist the penetration of water under hydrostatic pressure.

Krystaline Add is a powder admixture that is added to concrete at 2% of the cement content of the concrete to a 6 kg maximum dosage. **Krystaline Add** reduces water by approximately 5% subject to mix design. **Krystaline Add** is compatible with most super-plasticizers, it is recommended to test before mixing.

Add **Krystaline Add** directly to the concrete during mixing at any time. However, the addition can affect the plastic properties of concrete. Prior testing is recommended.

DOSAGE

Concrete - 2% of cement content of the concrete (by weight) up to a maximum of 6 kg/m³

Shotcrete - 5 kg/m³

Mortar - 2% of cement content

STORAGE

Krystaline Add should be stored at room temperature (min 5°C and max 35°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of 2 years can be expected.

PACKAGING

Krystaline Add is supplied in 20 kg pails.

HEALTH & SAFETY

This product becomes caustic when mixed with water or perspiration.

Krystaline Add should only be used as directed. We always recommend that the Health & Safety Data Sheet is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection.

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TECHNICAL DATA

Color	Grey
Appearance	Powder
Density	1.2 g/cm ³
Particle size	40-150 microns
pH (Mixed with water)	13
Solids content	100%
Hydrostatic resistance	12 bar
Typical dosage	2% by wt. cement
Crack self-sealing	0.5 mm

DISCLAIMER

Whilst any information and/or specification contained herein is to the best of our knowledge, true and accurate, we always recommend that a trial be carried out to confirm suitability of the product, as no warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives, agents or distributors. The information in this data sheet is effective from the date shown and supersedes all previous. Please check with your office to confirm that this is current issue: (May of 2019).