

KRYSTAL 2600

4th Generation Water Resisting and Hydrophobic Crystalline Waterproofing Admixtures for Below and Above Grade Concrete



PRODUCT DESCRIPTION

Krystal 2600 is a 4th generation water resisting and hydrophobic crystalline waterproofing admixture for designing a watertight concrete in both below and above grade application. It ensures permanent impermeability of concrete and is used in places where surface applied waterproofing membranes are used for improved durability and longevity of concrete

ADVANTAGES

- It is a Permeability Reducing Admixture for Hydrostatic conditions (PRAH), thereby protecting the concrete against negative and positive water pressure
- Improvement of the resistance to freeze/thaw
- Reduces repair and maintenance costs
- Reduces permeability of the concrete.
- Helps to increase the compressive strength of concrete.
- Inorganic, nontoxic, zero VOC (0%).
- Unlike coating, Krystal 2600 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.
- Reduced concrete shrinkage and cracking.
- Excellent resistance to waterborne chemicals.
- Protection against sewage and industrial wastes.
- Suitable for (CEM I,II,III) grade binder used in concreting

AREA OF USE

Krystal 2600 can be applied to all concrete where water penetration must be permanently prevented such as: Foundations, Sewage treatment plants, Tunnels and subway systems, Underground

structures, Dams, Pre-cast structures, Swimming pools and reservoirs, plastering of exterior walls, Bridge decks, columns, beams, Roof and podium slabs and any other areas where high hydrostatic pressure is present.

MIXING / DOSAGING

Krystal 2600 is added at the rate of 0.75–1% based on weight of cement and is dependent, amongst other criteria, on the concrete formula and the reactivity of the cement. The dosage is to identify with a suitability trial.

The following dosage levels are recommended:

W/C Ratio	Dosage Based on Weight of Cement
<0.4	0.75%
>0.4-0.5	0.8%
>0.5-0.55	0.90

Concrete plants

Krystal 2600 may be dosed into the aggregate and mixed for a minimum of 30 seconds before adding the water and cement. Subsequently, mix for a minimum of 45 seconds until ready for use.

Concrete trucks

Krystal 2600 is dosed directly into the mixing drum of the concrete truck on site. The mixing time should be 1 min/m³ of drum contents but be a minimum of 5 minutes.

Site mixes:

Concrete mixed in small tumbler mixes can also be improved with Krystal 2600. Add the product in the calculated amount together with the water into the mixer.



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TECHNICAL PROPERTIES

Packaging	20kg bucket
Appearance	Grey Powder
Bulk Density	~1.65 g/cm ³
Specific gravity	~3.0
Chloride ion content	<0.1%
PERFORMANCE PROPERTIES 1 (OVER CONTROL)	
Compressive Strength	Increased compressive strength over control by 15% after 7 days and 24% after 6 months. ASTM C39
Permeability	98% reduction
Self-Sealing	Stopped water flow from crack sizes of 0.5 and 0.6mm
Crack Reduction	90% reduction in shrinkage and cracks ASTM C1140
PLASTIC PROPERTIES (OVER CONTROL)	
Slump	No significant change (ASTM C143)
Plastic Density	No significant change (ASTM C138)
Air Content	No significant change (ASTM C231)

CURING

Follow specified curing procedures as necessary. Krystal 2600 is effective whether water curing or a curing compound used. Standard concrete placing practice in accordance with ACI recommendations or equivalent international codes must be followed to ensure optimum results.



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STORAGE AND SELF 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 the 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

The information and recommendations relating to the application of Costarchem products, are given in good faith based on current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with the stated recommendations in the product datasheets. Whilst Costarchem endeavors to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it. The user of the product must test the product's suitability for the intended application and purpose. Costarchem reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

