

KrystalMix SC

CRYSTALLINE CONCRETE PROTECTION SLURRY COAT

Description: KrystalMix SC is a high-performance integral waterproofing and durability coating designed to protect and enhance the concrete surfaces. This innovative slurry coat is formulated with advanced crystalline technology, providing superior protection against moisture, chemical attack, and mechanical properties. It is precisely engineered to penetrate deep into the concrete matrix, forming an impenetrable barrier that enhances the overall strength and longevity of the structure.

Uses: KrystalMix SC can be applied over various concrete/cement based structures such as precast panels, water storage tanks, marine and coastal structures, rafts, runways, highways, roofs, decks, bridges, cut and cover tunnels, silos, carparks, swimming pools, pipes, lift pits, STP, ETP, old structures, etc. It is an ideal replacement for the old tedious and hazardous method of preformed SBS waterproofing membrane system for basements.

Advantages:

Emerges as an elemental part of concrete

Non-toxic and can be safely used contact with potable water

Chemicals remain dormant and reactivate whenever there is a presence of moisture

No requirement of costly surface priming or leveling prior to application as for other types of coatings

Can be used to freshly laid green concrete by dry shake method

Can be applied on the negative side of water retaining or underground structures

Forms subsurface membrane

Seals hairline and shrinkage cracks up to 1/51" (0.5 mm)

Zero VOC

Typical Properties @ 25°C

Properties	Standard	Values
Colour & Appearance	Visual	Grey Powder
Bulk Density	Visual	Approx. 1.6-1.7
Compressive Strength	ASTM C 109 – 02	Class R3 > 25 Mpa
Chloride Content	ASTM C 144 -09	< 0.05%

Note: Testing was performed under laboratory conditions.

Other compliance:

BSEN 1504 Part 3&7

DIN 1048 Part 5 depth of water penetration

NSF 61 (USA) Non-Toxicity

Features and Benefits:

Superior Protection: KrystalMix SC a concrete protection slurry coat offers exceptional resistance to moisture ingress, preventing damage caused by water penetration. It also provides a high level of protection against chemical attack, ensuring the longevity of the concrete structure.

Enhanced Durability: By penetrating deep into the concrete matrix, this slurry coat strengthens the structure, enhancing its durability and resistance to cracking, spalling, and abrasion.

Self-healing Properties: The advanced crystalline technology in this slurry coat allows it to self-heal microcracks that may develop over time, ensuring long-term protection and reducing maintenance costs.

Easy Application: KrystalMix SC Slurry Coat is easy to apply, offering excellent adhesion to both new and existing concrete surfaces. It can be applied using a brush, roller, or spray equipment allowing for efficient and hassle-free application.

Direction for Use:

Surface Preparation: Ensure the concrete surface is clean and free from dust, dirt, oil, and other contaminants. Any existing coatings or loose material should be removed by mechanical means.

Mixing: In a clean container, add the required amount of KrystalMix SC to clean water, following the recommended mixing ratio. Mix thoroughly until a lump-free, homogeneous slurry is obtained

Mixing Ratio:

Brush: Mix one bag of 25kg powder with 8.3 to 10 liters of water

Spray: Mix one bag of 25kg powder with 13.7 to 16.2 liters of water

Application:

Slurry Coat: Apply the slurry coat evenly to the prepared concrete surface using a brush, roller, or spray equipment. Ensure complete coverage and avoid excessive build-up. For optimum results, apply two coats, allowing the first coat to dry before applying the second. Always apply 2nd coat in perpendicular to first coat to ensure all surfaces are covered evenly.

Coverage rate: 1.25 – 1.50 lb/yd² (0.8 – 1.0 kg/m²)

Dry Shake Method: For Newly Poured Concrete, use KrystalMix SC directly from the bag. Distribute the powder evenly over freshly poured concrete at a spread rate of 4-5kg/m² before the final trowelling. It is recommended to distribute approximately 50% of the powder in one direction with the remaining 50% at right angles to the first application.

Release the powder as close to the wet surface of concrete as possible. Finally trowel the concrete to the required finish. For positive side waterproofing, KrystalMix SC shall be sprinkled on horizontal formwork. Concrete should be poured directly on the well spread material.

Coverage rate: 8.8 – 11 lb/yd² (4-5 kg/m²)

Leaking Cracks: KrystalMix SC can be mixed to dry mortar consistency and used to fill the cracks. If there is any active water leakage then KrystalMix SC can be mixed to plastic consistency and fixed at the point of water leakage to stop the seepage of water. Over such treatment, two coats of KrystalMix SC can be applied at the said rate of application.

Curing: Allow the applied slurry coat to cure for a period of 5-7 days. Protect the freshly coated surface from rain or water contact during this curing period.

Cleaning: Clean all tools and equipment with water immediately after use.

Limitations:

Do not apply KrystalMix SC at temperatures at or below freezing or freezing surfaces.

KrystalMix SC cannot be used as an additive to concrete or plasters.

KrystalMix SC should not be confused with a coating or membrane.

KrystalMix SC is not a decorative material.

Packaging: KrystalMix SC is available in 55 lb (25 kg) bags or plastic pails. For larger projects and bulk volumes, customized packaging is available.

Storage/Shelf Life: KrystalMix Sc products must be stored dry at a minimum temperature of 45°F (7°C). Shelf life is 24 months when stored under proper conditions.

Technical Services: For more detailed instructions, alternative application methods, or information concerning the compatibility of the KrystalMix SC treatment with other products or technologies, contact the KrystalMix Technical Department or your local KrystalMix representative.

Safe Handling Information: KrystalMix Admix is alkaline. As a cementitious powder, liquid or mixture, KrystalMix Admix may cause significant skin and eye irritation. KrystalMix LLC also maintains comprehensive and up-to-date Safety Data Sheets on all its products. Each sheet contains health and safety information for the protection of your employees and customers. KEEP OUT OF REACH OF CHILDREN. Contact KrystalMix LLC or your local KrystalMix representative to obtain copies of Safety Data Sheets prior to product storage or use.