

# KRYSTAL COAT

## One Component Crystalline Waterproofing Slurry

### Description

Krystal Coat is one-component crystalline waterproofing slurry that is specially designed to permanently waterproof both old and new concrete. It lowers the permeability of concrete and is used in place of surface applied waterproofing membranes for improved durability and longevity of concrete.

### Advantages

- Easy application, environmental friendly and cost effective
- Potable water approved - NSF/ANSI 61Seals and post seals shrinkage cracks, up to 1/64" (0.4 mm)
- Can be applied to green concrete as soon as forms are stripped
- Protects concrete against fresh water, salt water, waste water & aggressive ground water
- Resists strong hydrostatic pressure
- Applied to positive or negative side water pressure

### Areas Of Use

Suitable for all concrete applications for water impermeability Exterior (positive side) or interior (negative side) waterproofing of below grade foundations, basements, retaining walls, utility vaults, elevator pits. Water tanks, wastewater tanks, water catchment basins, manholes, parking garages, tunnels, slurry walls.

### Application Instructions

- **Substrate Preparation**  
Concrete substrates must be sound and of sufficient compressive strength (minimum 25N/mm<sup>2</sup>) with a minimum pull off strength of 1.5N/mm<sup>2</sup>. The substrate must be clean and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. if in doubt, apply a test area first.  
Weak concrete must be removed and surface defects such as voids must be fully exposed. Repairs to the substrate, filling of voids and surface leveling must be carried out by using Costar Repair Mortar. Thoroughly rinse all the surfaces to be waterproofed with clean water. Ensure that the surface is saturated to control surface suction and ensure the growth of the crystalline formation deep within the pores of the substrate.
- **Mixing**  
Add the 3 parts of Krystal Coat powder to 1 part of clean water and mix for at least 3 minutes with a mechanical mixer to a creamy slurry consistency. Mix only as much material as can be used within 30-40 minutes. In case false setting occurs, do not add water; restir to restore workability.
- **Application**  
A trial dry-shake application is highly recommended prior to the actual application.

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### HORIZONTAL SURFACES & CONSTRUCTION JOINTS

#### Dry-sprinkle and power-trowel or wooden float application:

The specified amount of Krystal Coat is dry distributed, by hand, using a sieve, or similar device, onto the concrete surface when the concrete to be treated starts to set initially. It is then troweled in until coverage is uniform and the specified finish is achieved (smooth or brushed).

#### Split Slabs / Construction Joints:

Apply Krystal Coat in slurry or dry powder consistency to pre-watered concrete substrate, split slabs or construction joints immediately prior to casting the structural slab or wall.

#### Brush or spray application:

Ensure that the Slab surfaces have a rough wood float or broom finish. Apply Krystal Coat in slurry consistency in the specified quantity, in one coat.

### VERTICAL SURFACES & CONSTRUCTION JOINTS

#### Brush application:

Brush on two coats of Krystal Coat in a slurry consistency onto the material evenly and work it well into the surface. Ensure that the second coat is applied while the first coat is still tacky.

#### Spray Application:

Spray on one or two coats using compressed air-spray equipment in circular movements. Ensure that the second coat is applied while the first coat is still tacky.

### Curing and Protection

#### Exposed Areas:

The freshly treated surfaces should be protected from rain for a minimum period of 24 hrs.

Start curing as soon as Krystal Coat has hardened sufficiently so as not to be damaged by a fine water spray. Keep damp for a period of 2 - 3 days for standard waterproofing applications, 7 days for potable water tanks.

Protect exposed surfaces against direct sun, wind and frost by covering with plastic sheeting, burlap, or similar. Do not lay plastic sheeting directly on Krystal Coat as air contact is required for proper curing. Back filling can be carried out 36-72 hours after completion of the Krystal Coat treatment. Protection boards are generally not required. Backfill material shall be moist and not contain rocks or larger aggregate.

#### Indoor treated areas:

Self curing in cool areas with high humidity.

Keep moist for 2 - 3 days in areas with low humidity and 7 days for potable water tanks. Provide air circulation for minimum 24 hrs. following the Krystal Coat treatment in poorly ventilated areas and deep pits.

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### Decoration, Coating and Tiling

All surfaces treated with Krystal Coat which are to be coated or painted must be left to cure for at least 4 weeks. At the end of the curing period, the surfaces should be saturated with water and neutralized with a 1:8 solution of muriatic acid. Following this, the areas must be thoroughly rinsed with water.

When a plaster or render finish is required on top of Krystal Coat treatments, it is essential to apply a thin rough cast of sand and cement on the final Krystal Coat layer when it has reached initial set. If this is not practical, carefully clean the hardened Krystal Coat surface and apply an appropriate bonding agent prior to rendering.

Do not use for waterproofing applications under thin set tile mortar (i.e. swimming pools, balconies, etc.).

Slabs on or below grade to be covered with vinyl tiles or other non-breathable products (i.e. epoxy, some carpets, resilient flooring, etc.) must be checked for moisture vapor emission as per ASTM F 1869-98 before installation of tiles, etc.

### Technical Information

Bulk Density	1.9 Kg/L
VOC	0%
Pot Life	30-40 minutes
Portable Water Certified	NSF/ANSI
Setting Time	60-90 minutes at 20°C

### Technical Information

20 Kg bag

### Storage and Shelf Life

24 months from date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperature between +20°C and 30°C

### Limited Warranty

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty either expressed or implied. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his or her use of the product. Nothing contained in any supplied materials relieves the user of the obligation to read and follow the warnings and instruction for each product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use away.

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