



## CRETOPROOF CRYSTAL COAT

(Crystalline Waterproofing Coating)

### Description

CRETOPROOF CRYSTAL-COAT is a state-of the art one component, penetrating crystalline material for waterproofing and protecting new or old structurally sound concrete. It resists strong hydrostatic pressure. CRETOPROOF CRYSTAL-COAT is powered by advanced crystalline technology which chemically reacts with moisture and free lime to reduce the water absorption of the resultant cement matrix within the concrete. This is a result of the formation of nano-scale crystals by the active catalysts present in the capillary system. This sustains a durable waterproof effect in the concrete, thereby blocking the passage of water. This reaction will continue to take place anytime water is present for the life of the concrete structure where by making the CRETOPROOF CRYSTAL-COAT a truly permanent and integral waterproofing solution. The CRETOPROOF CRYSTAL-COAT nano-crystals will also grow in and along static hairline crack sealing them and preventing further incoming water.

### Uses

- Exterior and interior waterproofing in below grade structures i.e.
- Basement Raft
- Retaining Walls
- Lift Pits
- Foundations.
- Water Tanks, Waste Tanks, STPS & Manholes
- Tunnels

### Features & Benefits

- Penetrates the capillaries deep in concrete.
- Continually active.
- Can be applied to damp substrates.
- Chloride free.
- Resists high levels of hydrostatic pressure.
- Can be applied in both positive & negative side.
- Carbonization barrier.
- Self heal cracks up to 0.4 mm.
- Easy to use - needs only water for mixing
- Can be applied to green concrete as soon as forms are stripped.
- Protects concrete against fresh water, salt water, waste water & aggressive ground water.

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## CRETESTONE PRIVATE LIMITED



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## Application Methodology:

The substrate must be sound, clean and have an open capillary structure. The surface must be porous and permit a good surface adhesion so that the chemicals can penetrate well into the concrete. Horizontal areas should have a rough surface. Smooth surfaces must be mechanically abraded in order to achieve good penetration. All adhesion inhibiting substances such as dirt, cement laitance, Mould oil, hardeners, loose components, paint etc. must be removed, by water jetting or other mechanical methods. Eradicate all ridges, gravel pockets and other damaged areas. Poor day joints and visible cracks (non-dynamic) above 0.4 mm should be chased out 10 mm wide by 20 mm deep. Anchoring holes should be roughened Pre-Wetting all surfaces to be waterproofed with clean water is mandatory. Repeated dampening produces saturation through which the porosity of the substrate is present whilst at the same time promoting the growth of crystals deep in the pores of the substrate. When using CRETOPROOF CRYSTAL-COAT the substrate should be matt damp and not wet. Avoid the formation of puddles.

## Product Preparation & Mixing

Pour 6.75 to 8.0 liters of clean (cool) water into a clean mixing bucket and mix in enough dry mortar while mechanically stirring (drill at 300 - 700 rpm) until a lump free, homogenous fluid or sprayable consistency is achieved. Only mix as much material that can be used within 30 to 60 minutes. After a maturing time of min. 3 minutes, stir through once again. Substrate/ Application temp: +5°C to +30°C. Lower Temperatures extend higher temperatures reduce the curing time

## Application

A trial dry-shake application is highly recommended prior to the actual application.

A. Standard application for concrete with design strength up to 4000 psi (27.6 Mpa): When the concrete to be treated starts to reach initial set, the specified amount of CRETOPROOF CRYSTAL-COAT is dry distributed, by hand, using a sieve, or similar device, on to the concrete surface. It is then troweled in until coverage is uniform and the specified finish is achieved (smooth or brushed).

### B. Mud Slabs / Split Slabs / Construction Joints

Apply CRETOPROOF CRYSTAL-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: Note: Slab surfaces must have a rough wood float or broom finish. Apply CRETOPROOF CRYSTAL-COAT in slurry consistency in the specified quantity, in one coat.

### C. Outdoor, or exposed treated areas

Keep damp (moist) for a period of 2 - 3 days for standard waterproofing applications, 7 days for potable water tanks. Start curing as soon as CRETOPROOF CRYSTAL-COAT has hardened sufficiently so as not to be damaged by a fine water spray. Alternatively a dissipating resin curing agent in elevator pits, wastewater tanks, etc. can be used. Protect exposed surfaces against direct sun, wind and frost by covering with plastic sheeting, burlap, or similar. Do not lay plastic

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sheeting directly on CRETOPROOF CRYSTAL-COAT as air contact is required for proper curing. The freshly treated surfaces should be protected from rain for a minimum period of 24 hrs. Back filling can be carried out 36 hrs after completion of the CRETOPROOF CRYSTAL-COAT treatment. Backfill material shall be moist and not contain rocks or larger aggregate.

## Technical Data:

Basis	Sand/cement, inorganic
Bulk density	1.1 kg/litre
Color	Cement Grey
Pot life: (at +23° C / 60% RH)	30 minutes
Setting Time: (at +23° C / 60% RH)	45 minutes
VOC, g/L	0 g/L
Water impermeability (CRD-C 48-92)	13 bar negative or positive side

CRETOPROOF CRYSTAL-COAT confirms to BS 8102:2009 & IS 16471:2017, Type B Water Proofing product.

## Consumption

1.5 kg/m in two coats the consumption will vary depending upon the substrate condition.

## Vertical Surfaces & Construction Joints

### I. Brush application:

Apply two coats of CRETOPROOF CRYSTAL-COAT, in the specified quantity, in a slurry consistency with a masonry brush. Brush on the material evenly and work it well into the surface. Apply second coat while the first coat is still tacky ("green").

### II. Spray Application:

CRETOPROOF CRYSTAL-COAT may be applied using appropriate compressed-air spray equipment. Spray on one or two coats, according to the specification, in circular movements. Apply second coat while first coat is still tacky ("green").

## Curing and Protection:

### A. 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 CRETOPROOF CRYSTAL-COAT treatment in poorly ventilated areas and deep pits.

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## **B. Water Tanks**

Can be carefully filled after 3 days. Do not fill large tanks faster than 6½ feet per 24 hrs (2 m/24 hrs). After complete curing of CRETOPROOF CRYSTAL-COAT , potable water reservoirs should be thoroughly rinsed with potable water prior to being placed in service.

### **Packing**

Available in 20kg Pails

### **Storage**

Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

### **Disclaimer**

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

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