

# Isoplus Crystagaurd



## CRYSTALLINE CAPILLARY WATERPROOFING SYSTEM FOR CEMENTITIOUS SUBSTRATES

### Description

Isoplus Crystaguard is a unique chemical treatment for the waterproofing, protection, and repair of concrete. Isoplus Crystaguard consists of Portland cement, finely graded sand, and active proprietary chemicals. It is applied as a cementitious slurry onto the pre-saturated surface of existing above and below-grade structures. The active chemicals within Isoplus Crystaguard diffuse into the substrate and react with moisture and the constituents of hardened concrete, resulting in a catalytic reaction. This reaction generates a non-soluble crystalline formation throughout the pores, capillary tracts, and cracks of the concrete. This permanent sealing effect prevents the penetration of water and other liquids from any direction, even under high hydrostatic pressure. concrete itself becomes the waterproof layer removing the need for any surface treatment.

### Recommended Use cases

- Water Tanks
- Swimming Pools
- Reservoirs
- Sewage and Water Treatment Plants
- Underground Vaults/ Basements
- Secondary Containment Structures
- Foundations
- Tunnels and Subway Systems
- Swimming Pools
- Parking Structures

### Advantages

- Resists extreme hydrostatic pressure
- Becomes an integral part of the substrate
- Can seal static hairline cracks up to 0.5 mm
- Can be applied to the positive or the negative side of the concrete surface
- Highly resistant to aggressive chemicals
- Non-toxic / no VOCs
- Does not require sealing, lapping and finishing of seams at corners, edges or between membranes
- Not subject to deterioration
- Permanent
- Available in white for enhanced illumination

### Properties

Service Temperature : 20 to 110 degrees centigrade  
Tensile strenght : 1.6  
Adhesion to concrete : 1  
Pot Life : 40 Mins  
Hardening time : Touch dry - 6 hour; Full cure 2 Days (Mist water curing suggested after each coat)  
Recoatings : 24 Hours  
Coverage : For normal surface conditions, the coverage rate for each Crystagaurd coat is 0.65 - 0.8 kg/m<sup>2</sup>

### Application Instructions

#### Surface Preparation

All the surfaces which are to receive Isoplus Crystagaurd, must be free from oil, grease, wax, dirt or any other form of foreign matter which might affect adhesion. Spalled and deeply disintegrated concrete should be removed to sound concrete and repaired with Quickroc System. The concrete should be etched, all kinds of fungus should be removed, if necessary acid wash should be done. All cracks must be thoroughly repaired with Quickroc. All surfaces to be primed with the isoheal.

#### Wetting Concrete

Isoplus Crystagaurd coating requires a saturated surface dry (SSD) condition. Concrete surfaces must be thoroughly saturated with clean water prior to the application so as to aid the diffusion of the Crystagaurd chemistry and to ensure growth of the crystalline formation deep within the pores of the concrete. Remove excess water before the application such that there is no glistening water on the surface. If concrete dries out before application, it must be rewetted.

#### Mixing

Mix Isoplus Crystagaurd powder with clean water to a creamy consistency in the following proportions:

#### For Brush Application

5 parts powder to 2 parts water  
Coverage : 1.25 - 1.5 lb./sq. yd. (0.65 - 0.8 kg/m<sup>2</sup>)

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### For Spray Application

5 parts powder to 3 parts water  
Coverage : 1.25 - 1.5 lb./sq. yd. (0.65 - 0.8 kg/m<sup>2</sup>)  
(ratio may vary with equipment type)

2 Coats of the Isoplus Crystagaurd is recommended with sufficient curing time in between the coats. Do not mix more Isoplus Crystagaurd than can be applied in 20 minutes. As the mixture thickens, stir briefly to ensure mixture remains fluid; but do not add water.

### Application

Apply Isoplus Crystagaurd with a semi-stiff nylon bristle brush, push broom (for large horizontal surfaces), or specialized spray equipment. The coating should be uniformly applied and have a thickness slightly below 1/16 inch (1.25 mm). Apply second coat once the first coat has reached an initial set but is still in curing phase (within 48 hours). Mist the coating with water for curing between coats. Before applying the second coat, ensure that the first coat is in a saturated surface-dry (SSD) condition. Avoid applying the Isoplus Crystagaurd treatment during rainy conditions or when the ambient temperature drops below 40°F (4°C). It is also advisable to avoid application in hot and windy conditions to prevent premature drying of the coating.

### Curing

Generally, a misty fog spray of clean water is used for curing the Isoplus Crystagaurd treatment. Curing should commence once the Isoplus Crystagaurd has reached a stage where it won't be affected by a fine water spray. Typically, it is recommended to spray Isoplus Crystagaurd-treated surfaces three times a day for two to three days under normal conditions. In hot or arid climates, more frequent spraying may be necessary.

### Packaging

Isoplus Crystagaurd is supplied as a package of 5kgs and 10kgs Bags  
larger packaging sizes are available on request for bulk orders

### Storage

Isoplus Crystagaurd has a shelf life of 12 months in unopened packs, if kept in a dry store. In high humidity locations, the shelf life may vary.

### Precautions

Isoplus Crystagaurd is non-toxic but it is alkaline in nature. Gloves and goggles is recommended to be worn. Any splashes to the skin or eyes should be washed off with clean water. In the event of prolonged irritation, medical advice should be sought.



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### Important Note

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