



CRYSTONITE



CRYSTONITE is a surface applied 2 component crystalline slurry treatment with impregnation properties used for a concrete structure to protect against water ingress. It consists of active chemicals, special cementitious binders, and fillers mixed with a liquid polymer, which makes it concretely impervious to the penetration of water. When applied to concrete, CRYSTONITE chemically reacts with water and un-hydrated cement particles to form insoluble needle-shaped crystals that fill capillary pores and micro-cracks concrete and block the pathways for water and waterborne contaminants. CRYSTONITE protects from moisture and water ingress throughout the treated structure's life as the active compound forms crystals on contact with water.

RECOMMENDED APPLICATION

- Tunnels
- Canals
- Reservoirs
- Bridges
- Dams
- Elevator pits
- Tunnels & subway systems
- Swimming pools
- Parking structures
- Construction joints
- New and old concrete
- Brick and block masonry
- Basement retaining walls
- Sewage and water treatment plants
- Concrete slabs (floor/roof/ balcony, etc.)
- Concrete foundations
- Water retaining structures
- Underground vaults

BENEFITS & KEY FEATURES

- IMPERMEABLE
- IMPREGNATION PROPERTIES
- DURABLE
- RESIST HYDROSTATIC PRESSURE
- EASY APPLICATION
- POSITIVE AND NEGATIVE SIDE APPLICATION
- SELF-HEALING PROPERTIES

TECHNICAL SPECIFICATION

Appearance	Light grey powder (A) and milky white Emulsion (B)
Mix density	1.8 g/cm ³
Pot life@ 30°C	30 minutes
Hydrostatic pressure resistance	10 bars
Typical depth of crystal penetration	2-10 mm
Sealing cracks	up to 0.5mm
Adhesion to concrete	1.8 Mpa
Flexural strength	6 Mpa
Co-efficient of water vapour diffusion resistance (u)	60
Mixing ratio	3 powder :1 liquid
Drying time	12 hours

DIRECTION FOR USE

SURFACE PREPARATION



The surface to be waterproofed must be sound, clean, free of dust, oil, paint, curing agents, loose cement, concrete, debris, or any separation layers. All sharp edges need to be levelled, honeycombs to be treated and loose concrete to be removed and repaired using GLOBCON SC 40.

All cracks wider than 1 mm, construction joints, adjacent joints like a wall to floor and wall to wall joints need to be opened into a v-groove and to be filled with a mixture of GLOBCON SC40 and GLOBCON SBR ULTRA or SBR 500, premixed in a ratio of 3(A) powder:1(B) liquid.

SURFACE WETTING

The surface must be continuously wetted right from the time of surface preparation, using high-pressure water jets up to the time of application of the coating. Ensure that there is no standing water or puddles. Prewetting before each coat needs to be carried out

MIXING



CRYSTONITE part (A) and part (B) are mechanically mixed with an Electric paddle mixer at low RPM to a homogeneous consistency. Mix only as much material as can be used within 40 minutes and stir the mixture frequently.

APPLICATION

- Apply the first coat of mixed material with a stiff nylon bristles brush or suitable spray equipment. Apply using a stippling action and then finish smooth.
- A second coat is to be applied perpendicular to the first coat after 6 - 8 hours.
- If required, the third coat to be applied perpendicular to the second coat after 6-8 hours.
- Three coats application is compulsory for below ground and water retaining concrete structures.
- The thickness shall be in the range of 1mm to 2 mm. Depending on the numbers of coats.
- The areas that were opened during surface preparation, like cracks, cold joints, fillets, etc., are overcoated with GLOBCON AQUA FLEX W9 (Elastomeric coating) to take care of the movement.

PRECAUTIONS

At higher temperature, CRYSTONITE dries fast. So small quantities should be mixed for application.

PACKAGING

30 kg combo (Part A : 21 kg & Part B : 9 kg)

COVERAGE

- 1.8 kg/m² per single coat and 3.6 kg/m² for double coat (Depending on numbers of coats and area)
- Single basements and water bodies are 2 to 3 kg/m²
 - Toilets and sunken portions are 1.8 to 2 kg/m².
 - Multi-level basements is 2.5 to 3.6 kg/m².

SHELF LIFE

12 months from the date of packing for sealed pack. Should be stored in cool & dry condition, keep away from direct sunlight.