

## ISOLION CRS 125

### SINGLE-COMPONENT CRYSTALLINE WATER INSULATION MATERIAL

#### Product Definition

› It is a water insulation material that is single-component, cement-based, applied to concrete surfaces, reinforced with special chemicals against water pressure coming from negative and positive directions, serving as a plug by establishing a crystal structure in capillary cracks within the concrete.

#### Fields of Use

- › Lift hollows,
- › Used for: water storage, swimming and ornament pool,
- › Concrete piping,
- › Manhole and infrastructure materials,
- › Foundation, and walls of basement,
- › Engineering structures such as metro, tunnel, dam, highway,
- › Negative and positive water insulation of structures such as basement curtains.

#### Characteristics and Advantages

- › Thanks to crystallization feature, it prevents water infiltration from the surface effectively.
- › It is resistant to positive and negative water pressure.
- › It is easy to use, only mixed with water.

#### Application Details

› Surfaces should be clean, smooth and solid as purified from adhesion prohibiting materials and wastes such as dust, oil, dirt, rust, mold lubricant and detergents. If segregation exists in cement, loose and deteriorated parts should be thrown and weak parts must be removed. If any cracks and holes exist on the surface to be applied, they should be repaired with ISOLION REPAIR MORTAR. ISOLION CRS 125 application should be conducted 3-4 days later. If surface to be insulated is dry, it is watered and saturated to water and ready for application.

#### Surface Preparation

› ISOLION CRS 125 is added with 6 - 7 l clean water taken from normal environmental temperature in a clean container. ISOLION CRS 125 in 25 kg bag is poured into container filled with water. The product is mixed until a homogeneous mixture without lumps is achieved with the help mixer or a drill. Mixing duration should be 5 min. at least. This mixed product is rested for 5 min after mixing (to solve organic substances in it) and then mixed for another 2 minutes to make product ready for use.

#### Application

- › ISOLION CRS 125 application is done in three ways;
- › With brush: on dry surfaces, concrete surface is watered and saturated by water. On the surface, not puddles or ponding but moisture can occur. If the continuous water leak comes, ISOLION SHOCK 145 PLUG MORTAR should be used to eliminate leakage. Then prepared mixture is applied on the surface with a brush at 2-3 layers. Application can be done with mechanical hard bristle brush or spraying method. First from left to right, second from top to bottom, including application is completed. Waiting duration between floors is performed as follows. Controlling concrete surface in hand controls, if ISOLION CRS 125 does not leave traces on hand, the next layer application can continue.

## Application

- › Manual Spreader Method: Prior to laying of found reinforced concrete, ISOLION CRS 125 is spread by hand over spread irons on lean concrete. Depending on needs of water insulation, ISOLION CRS 125 is spread then reinforced concrete.
- › Salver Finishing Machine Method: Wide aperture ground concrete terraces or normal concrete casting. Before ultimate setting concrete, ISOLION CRS 125 is spread by hand in an amount of 3 kg per m<sup>2</sup> in a place when no collapsing occurs but footprint appears when pressed on it by foot. ISOLION CRS 125 spread concrete is rubbed in thoroughly using concrete grinding machines.
- › No matter what route of application technique is preferred, curing should be conducted on the surface between 2-7 days after application is completed. Thus, a complete penetration into the crystalline structure and operation is provided.

## Warnings and Recommendations

- › Comply to job safety precautions. When using the product, wear gloves, mask, goggles.
- › Since it is cement based, do not breathe its powder; do not contact it with skin and eye.
- › Do not apply on wood, chipboard, MDE, plywood, PVC and metal surfaces.
- › Use only predetermined amount of water within the mixture. Never add a lot more water.
- › Do not add foreign substances.
- › After application, it should be protected against negative weather conditions such as direct sunlight, high winds, high temperatures (+35°C), rain and frost. Hands should be cleaned with water and detergent before the product receives complete cure and hardens.
- › Immediately after application, before hardening, equipments should be cleaned with water. After the product hardens, it should be cleaned by mechanical means.

## Technical Specifications

Color	Gray
Appearance	Dust
Application Temperature	(+5°C)- (+35°C)
Mix Ratio	6-7 l water / 25 kg powder
Counter Life	20 min.
Activation Duration	5 days
Adhesion to Concrete Strength (EN 1542)	≥ 1.0 N/mm <sup>2</sup>
Waterproof	7 bars (negative and positive direction)
Capillary Water Absorption Value (EN 1062 - 3)	≤ 0.1 kg/m <sup>2</sup> h <sup>0,5</sup>
Water Vapor Permeability (EN ISO 7783)	Class I; Sd < 5 (Sd: Equivalent air layer thickness)
Temperature Resistance:	(-25°C) - (+80°C)
Fire Reaction	A1

\*\*\* Tests have been performed in a laboratory environment at 23 °C and 50% relative humidity.

## Consumption

- › 2 kg/m<sup>2</sup> (2 layers)

## Packing

- › Craft bag of 25 kg.

## Shelf Life

- › 12 months in unopened packing in dry environment.

## Standard

- › Conforms to TS EN 1504-2 standard.

