

# **SOLIDMIX CRYSTALLINE**

CRYSTALLINE INTEGRAL CAPILLARY WATERPROOFING ADMIXTURE



CONCRETE ADMIXTURES



### **BENEFITS**

- > Reduce penetration of water and other liquids.
- > Seals hairline cracks.
- > Resists positive and negative side hydrostatic pressure.
- > Protect against sewage and industrial wastes.
- > Become an integral parts of the substrate.
- > Highly resistant to aggresive chemicals.
- > Allows concrete to breathe.
- > Non-hazardous and non-toxic.
- > Added to the concrete at time of batching and therefore not subject to climate restraints.
- > Increases flexibility in construction scheduling.
- > Crystalline cementitious materials.
- > Integral addition.
- > Reduce concrete permeability.

# **DESCRIPTION**

**SOLIDMIX CRYSTALLINE** is an integral crystalline capillary waterproofing admixture for concrete. It is added to the concrete mix at the time of batching.

SOLIDMIX CRYSTALLINE consists of portland cement very fine treated silica and special additives. These special additives react with the moisture in fresh concrete with the byproducts of cement hydration to cause a catalytic reaction, which generates a non soluble crystalline formation throughout the pores and capillary tracts of the concrete. Thus the concrete becomes permanently sealed against the penetration of water or liquids from any deterioration due to harsh environmental condition. It confirms to SIRIM Standards.

## **USES**

- > Foundations.
- > Tanks.
- > Sewage and water treatment plans.
- > Tunnel and subway systems.
- > Water reservoirs.
- > Parking structures.
- > Underground vaults.
- > Pre-cast components.

# PERFORMANCE CHARACTERISTICS

#### **SETTING TIME**

**SOLIDMIX CRYSTALLINE** has little to no effect on concrete setting time within the recommended dosage range.

#### **PERMEABILITY**

**SOLIDMIX CRYSTALLINE** capillary waterproofing admixture is a portland cement-based crystalline cementitious material that reacts in concrete to form non soluble crystalline hydration products in the capillary pores of the concrete. These crystalline hydration products effectively reduce the permeability of concrete thus reducing capillary absorption and the penetration of water and other liquids.

Typical data for **SOLIDMIX CRYSTALLINE** admixture @ 0.8% by mass of cement.

Performance Characteristics	Test Method	Performance reletives to untreated concrete mixture
Capillary absorption	ASTM C 1585	43% reduction
Water penetration	Modified DIN 1048	50% reduction
Moisture vapor emission rate	ASTM F 1869	Same
Electrical conductance	ASTM C 1202	Same
Compressive strength	ASTM C 39/C 39M	7% increase

# **GUIDELINES FOR USE**

#### **DOSAGE**

The dosage range for **SOLIDMIX CRYSTALLINE** is 0.8% by weight of cement.

### **DISPENSING & MIXING**

**SOLIDMIX CRYSTALLINE** admixture is batched at the concrete production plant in a manner similar to that for cement or other cementitious materials. It may be batched in either a central of truck mixer. Follow the procedures outlined in ASTM C 94/C 94M, Standard Specification for Ready Mixed Concrete, for general batching and mixing instructions for concrete. Provide

# **SOLIDMIX CRYSTALLINE**



atleast 5 minutes for mixing after the addition of **SOLIDMIX CRYSTALLINE** admixture to ensure thorough and uniform distribution of the admixture in the concrete mixture.

# PACKING & COVERAGE

#### **PACKING**

**SOLIDMIX CRYSTALLINE** is supplied in 400gms pouch and 25kg HDPE bag.

### SHELF LIFE & STORAGE

**SOLIDMIX CRYSTALLINE** will have a shelf life of 12 months in unopened container when kept in dry conditions at a temperature between 5°C to 45°C. Storage at higher temperature or high humidity may reduce shelf life.

# **HEALTH & SAFETY**

**SOLIDMIX CRYSTALLINE** is non-toxic. However, splashes on the skin should be washed well with water and in contact with eye occurs, wash well with water and seek medical advice (for more detail, please refer MSDS).

# **QUALITY ASSURANCE**

SOLID manufactures the entire range of construction chemical under compliance of SIRIM and other international standards (ASTM, BS, GBI, LEED).

### TECHNICAL SERVICES

**MIX DESIGN:** Solid has a dedicated advisory service on Concrete Mix Design and can be contacted if assistance is required.

While new advance and changes will take place but one thing will never change is quality and meeting special needs of our customers. Our technical personnel and experts are available to provide additional information and technical assistance. We are eager to work with you in development of new product and resolve your problem.

**Disclaimer:** The information provided in the data sheets is based on both current development of work and years of field experience. Efforts are made to ensure that the information is reliable, however, we cannot accept the responsibility for any work carried out with our materials as we have no control over methods of application, site conditions etc. In view of continuing research and development (R&D) undertaken in our laboratories, we advise customers to ensure that the data sheets provided are not superseded by an updated publication. All products are sold are subject to our standard condition of sale, which is available on request. Field services, where provided, does not constitute supervisory responsibility. For additional information, please contact our local SOLID representative.





### **FACTORY OFFICE**

Lot 772 (10-14), Jalan Subang 4, Kaw. Perindustrian Penaga, 46720 Subang Jaya, Selangor, Malaysia.

**4** +603-8081 4777 / +603-8081 4776

**4771 4771** 

oxdots info@solidsolutions.com.my

www.solidsolutions.com.my

### **OUR RANGE OF PRODUCTS**

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