



# KRYSTASEAL ADMIX

INTEGRAL CRYSTALLINE WATERPROOFING ADMIXTURE

## DESCRIPTION

The Krystaseal waterproofing system offers a comprehensive and enduring solution to water leakage issues. By leveraging the chemical interaction between moisture and unwanted lime present in the substrate, along with the active components within the Krystaseal mixture, a continuous barrier of solid crystals is formed. These crystals deeply penetrate the water-bearing capillaries of the concrete, effectively obstructing their pathways and preventing the passage of water. Importantly, this barrier still allows the exchange of air and water vapor, ensuring the structure's proper ventilation. Krystaseal is versatile in its effectiveness against both positive and negative water pressure and can be applied either as an admixture or as a slurry on internal or external concrete surfaces. Typically, complete waterproofing is achieved within 5-7 days of application. Following the successful crystallization process that waterproofs the structure, the active agents within Krystaseal remain within the concrete, maintaining the system's effectiveness over time. Any subsequent interaction with water triggers the reactivation of the sealing procedure.

## APPLICATION AREAS

- ▶ Reservoirs
- ▶ Sewage and water treatment plants
- ▶ Secondary containment structures
- ▶ Tunnels and subway systems
- ▶ Underground vaults
- ▶ Foundations
- ▶ Parking structures
- ▶ Swimming pools
- ▶ Precast, cast-in-place and shotcrete applications

## ADVANTAGES

- ▶ Resists extreme hydrostatic pressure from either positive or negative surface of the concrete slab
- ▶ Becomes an integral part of the concrete
- ▶ Highly resistant to aggressive chemicals
- ▶ Can seal hairline cracks up to 1/51" (0.5 mm)
- ▶ Allows concrete to breathe
- ▶ Non-toxic
- ▶ Less expensive than traditional methods
- ▶ Permanent
- ▶ Added to the concrete at the time of batching and therefore not subject to climatic restraints
- ▶ Reduces construction scheduling time
- ▶ Improves durability of concrete
- ▶ Permeability Reducing Admixture for Hydrostatic conditions (PRAH)
- ▶ Zero VOC

## APPLICATION

### Dosage Rate:

1% of cementitious content per Cubic meter of concrete. Consult with AIM Industries Technical Department for assistance in verifying the appropriate dosage rate and for further information regarding enhanced chemical resistance and optimum concrete performance for your project.

## MIXING

### Mixing:

Krystaseal Admix Powder must be added to the concrete at the time of batching. The sequence of procedures for addition will vary according to the type of batch plant operation and equipment. The following are some typical mixing guidelines. For more detailed information on dosing procedures, contact your Krystaseal representative.

Add Krystaseal Admix to the rock and sand, then mix thoroughly for 2-3 minutes before adding the cement and water. The total concrete mass should be blended using standard practices.

NOTE: It is important to obtain a homogeneous mixture of Krystaseal Admix with the concrete. Therefore, do not add dry Krystaseal Admix powder directly to wet concrete as this may cause clumping, and thorough dispersion will not occur. For further information regarding the proper use of Krystaseal Admix for a specific project, consult with AIM Industries Technical Representative.

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## SETTING TIME & STRENGTH

The setting time of concrete is influenced by a combination of factors including the chemical and physical composition of its ingredients, the temperature of the concrete, and the prevailing climatic conditions.

Under standard conditions, Krystaseal Admix should generally lead to concrete with a setting time within the normal range. Moreover, it's possible that concrete incorporating Krystaseal Admix may exhibit elevated ultimate strength characteristics when compared to concrete without this additive. To gain a precise understanding of the setting time and strength attributes of the concrete, it is recommended to conduct trial mixes that accurately mirror the conditions of the project.

For optimum results, it's imperative to adhere to established concrete best practices when working with concrete treated with Krystaseal Admix. In this regard, it is prudent to follow the guidelines and recommendations set forth by the American Concrete Institute (ACI), which is a recognized authority in the field of concrete technology. By doing so, the successful utilization of Krystaseal Admix can be ensured, contributing to the overall quality and durability of the concrete structures.

## PACKAGING & STORAGE

KRYSTASEAL ADMIX is available in **15, 20 Kgs bag**.

KRYSTASEAL ADMIX should be stored in cool, dry and shaded warehouses.

Shelf life is 12 months when stored under cover, out of direct sunlight, protected from extreme temperatures and as per recommendations. In extreme tropical climate, the product must be stored in cooled ambience. Excessive humidity and over exposure to UV will result in the reduction of shelf life.

## SAFETY

As with all construction chemical products, it is important to exercise caution. When handling KRYSTASEAL ADMIX, it is recommended to wear protective clothing such as gloves and goggles. For maximum safety, wearing a long sleeve overall, safety shoes, and a face mask is also advised. After each use, reseal the containers and store the product according to the safety instructions on the label. In case of contact with the skin or eyes, immediately rinse with fresh water. If any of the product is accidentally swallowed, do not induce vomiting, but seek immediate medical assistance. For more detailed information, please consult the Material Safety Data Sheet (MSDS) provided.

## TECHNICAL SPECIFICATIONS

|                      |                                             |
|----------------------|---------------------------------------------|
| Color                | Greyish Brown                               |
| Appearance           | Granular Powder                             |
| Air Content          | $\leq 2\%$                                  |
| Compressive Strength | $\geq 85\%$ of control                      |
| Chloride Content     | $< 0.10\%$ by mass                          |
| Capillary Absorption | Test Mix $\leq 60\%$ by mass of Control Mix |

The information given in this datasheet is based on both current development work and many years of field experience. Whilst every effort is made to ensure that the information is reliable, we cannot accept responsibility for any work carried out with our materials as we have no control over methods of application, site, conditions, etc.



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