

# ARMORKRYSTAL 600

## THIRD GENERATION CRYSTALLINE INTEGRAL WATERPROOFING ADMIXTURE

### PRODUCT DESCRIPTION

**ARMORKRYSTAL 600** - Krystal Integral Membrane is a third generation powder crystalline Integral waterproofing admixture designed to resist hydrostatic pressure and for all concrete requiring primary waterproofing. The innovative crystalline technology within **ARMORKRYSTAL 600** reacts with moisture, silicate and free lime, a natural by-product of the cement hydration process.

The reaction creates millions of nano-crystals which grow throughout the concrete pores and capillary tract. Thus, the concrete becomes permanently sealed against the penetration of water or liquids from any direction. The concrete is protected from deterioration due to harsh environmental conditions.

**ARMORKRYSTAL 600** has been specifically formulated to meet different temperatures and climate conditions.

### TYPICAL APPLICATIONS

**ARMORKRYSTAL 600** can be used for the structural waterproofing of all concrete structures such as:

- Reservoirs
- Sewage and Water Treatment Plants
- Foundation and retaining Wall
- Underground Vaults
- Secondary Containment Structures
- Tunnels and Subway Systems
- Swimming Pool
- Concrete Slabs and Precast panels

### ADVANTAGES / BENEFITS

- Extremely resistant to hydrostatic pressure from both negative and positive side of the slab
- Increases compressive strength and freeze-thaw resistance of the concrete
- Becomes an integral part of the concrete.
- Highly resistant to aggressive chemicals and protects reinforcement against corrosion.
- Non-toxic (NSF 61 certified for potable water applications)
- Negligible effect on slump, air entrainment, plasticizers and water reducers.
- Permeability tested as per ACE (Army corps of Engineers)
- Allows concrete to breathe and can seal hairline crack up to 0.4mm
- Increases concrete life span by 70 years
- Can stand alone

### DIRECTION FOR USE

**Dosage Rate:** 0.8-1% by weight of cement mass. Consult with ARMORSIL's 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:** ARMORKRYSTAL 600 must be added to the concrete at the time of batching either at the batching plant or at the point of placement at the time of batching.



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### SETTING TIME AND STRENGTH

The setting time of concrete is affected by the chemical and physical composition of ingredients, temperature of the concrete and climatic conditions. ARMORKRYSTAL 600 will have little or no effect on the set time. However concrete with ARMORKRYSTAL 600 may deliver higher compressive strength than normal concrete

### SPECIFICATION

**ARMORKRYSTAL 600** should be specified for all concrete surfaces subject to hydrostatic pressure or water attack.

**ARMORKRYSTAL 600** meets ACI 212 classification of Permeability Reducing Admixture for Hydrostatic Condition

### TECHNICAL INFORMATION

- Colour:** Free flowing grey powder
- Density:** 1.350 g/cm<sup>3</sup>
- PH Mixing:** 11.5
- Capillary Absorption:** 44% water reduction (ASTMC 1585)
- Water Penetration:** 42 % water reduction (DIN 1048)
- Compressive Strenght:** 9% Increase (ASTM C39)

### PACKAGING AND SHELF

**ARMORKRYSTAL 600** are packed in 20kg buckets. Store in a cold dry place. With proper storage material, can be stored and used within 12 months

### CLEANING AND HEALTH

**ARMORKRYSTAL 600** is a non-hazardous material, however because it is used with Portland cement it should be known prolonged contact with skin by Portland cement may lead to irritation, as it is the case with all cementitious based material, therefore safety gloves and glasses should be used when working with cement.

### LIMITED WARRANTY

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty either expressed or implied. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his or her use of the product. Nothing contained in any supplied materials relieves the user of the obligation to read and follow the warnings and instruction for each product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use away.

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