

## **HI-CRYSTAL-L** **(Liquid Crystalline Waterproofing Additive for Concrete.)**

### **DESCRIPTION**

Hi-CRYSTAL L is a unique liquid crystalline additive for concrete that forms pore blocking crystal fibers which permanently waterproof treated concrete. It can be added to concrete during the batching process or in a ready-mix truck with full mixing capabilities.

### **ADVANTAGES**

- Not a dry powder - easier and safer to mix;
- Resists extreme positive and negative hydrostatic pressure
- Becomes an integral part of the concrete
- May Increase concrete strength
- Can seal hairline cracks up to 1/64" (0.4 mm)
- Increases freeze/thaw resistance of concrete
- Negligible influence on air entrainment  
Non toxic
- Chloride free

### **PACKING**

It is available in 220Lt Barrels.

### **TECHNICAL DATA**

COLOR	: Transparent
Form	: Liquid
Specific gravity	: 1.17
pH Value	: 10-11
Working Temp	: >5 °C

### **USES**

Any Concrete mix Requiring waterproofing capabilities:

- Tunnels and subway systems
- Precast and Parking Structures
- Marine structures
- Reservoirs
- Bridges
- Foundations
- Basements and elevator pits
- Water and wastewater structures
- Swimming pools

### **DIRECTIONS**

Stir Hi Crystal-L prior to use, to assure that the mixture is homogeneous. Concrete should be placed no later than 45 minutes after the addition of Hi Crystal-L. Assure that the water/cement (w/c) ratio does not exceed 0.55 before Hi Crystal-L is added.

Add Hi Crystal-L at the specified dosage rate to the batching water, or last to the finished mixture in the batch mixer. For Onsite- ready mix truck, Deliver specified concrete mix to site, add 2% - 3% Hi Crystal-L and mix for minimum 5 minutes or until product disperses.

Carrying out trial mixes under conditions to determine setting time and strength of the concrete is recommended. Correct mix design is essential to achieve a watertight concrete. Before application, test for compatibility with any other admixtures to be used in the mix.

### **STORAGE**

Protect from freezing and contamination. Shelf life in unopened, original containers is 12 months when stored under shade at between 4 to 30°C.

## DOSAGE

Ensure that the water/cement ratio of the concrete does not exceed 0.55 before Hi Crystal-L is added.

- Use 2% \* per 100kg cement at water/cement ratios of 0.45 or lower.
- Use 3%\* per 100kg cement at water/cement ratios of 0.45 to 0.55.

## LIMITATIONS

Concrete should be placed no later than 45 minutes after the addition of Hi Crystal-L. The water/cement (w/c) ratio of the concrete must not exceed 0.55. Do not use at concrete temperatures below 4°C.

**This Product is Formulated and Labelled and Commercial use only**  
For Best Results and Safest Usage, User is Specialty Directed to Consult.

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Product Warranty: All recommendations, statements and technical data contained herein are based on tests we believe to be reliable and correct, HI BOND warrants its products to be free of mfg. Defects and that, at the time and place of shipment, our material will meet current published physical properties when applied within HI BOND'S directions and tested in HI BOND'S standards. HI BOND'S facility is limited to replacement of material found to be defective. As HI BOND has no control over the use to which others may put its products. It is recommended that the product be tested to determine if suitable for a specific application and / or our information is valid in particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, applications and proper installation of each product. Nothing contained herein shall be construed to be a recommendation to use or as a license to operate under or to infringe any existing patents.