

# 470 CRYSTAL-LOK

## DESCRIPTION

A ready-to-use, clear, water-based penetrating sealer designed for application to the surface of concrete, above or below grade, interior or exterior.

## BASIC USES

Brush roller or sprayed on concrete for sealing, hardening, dustproofing, waterproofing and weatherproofing. Protects concrete surfaces from abrasion and freeze-thaw damage and stops water seepage where it is not caused by cracking or other structural failure.

## MAJOR ADVANTAGES OF CRYSTAL-LOK

- Increases concrete density and hardness
- Prevents chemical corrosion and physical abrasion of the treated surface
- Effective in reducing freeze-thaw spalling
- Treatment is permanent and does not require subsequent reapplication every few years
- Effective as a negative side waterproofing against a hydrostatic head of over 115 ft/35 m
- Reduces or eliminates efflorescence and leaching in concrete
- Effective barrier (without loss of breathability) of water-vapour emission through concrete
- Solvent-free, odour-free, non-toxic and non-flammable
- Improves the bonding of cementitious toppings, coatings and paints
- Ultra-violet stability

## TECHNICAL AND PRODUCT DATA

**CRYSTAL-LOK** penetrates deeply into the capillary pores of the concrete and crystallizes, becoming part of the concrete itself.

**CRYSTAL-LOK** will not change the appearance of the concrete surface to which it is applied.

**CRYSTAL-LOK** has been tested as a chemical hardener by the Schmidt hammer rebound test with the following results:

• 10 year old slab			
- untreated:	2000 psi (13.8 MPa)	• No. of Components:	One
- one coat 470	3000 psi (20.7 MPa)	• Packaging	20L pails & 200L drum (5 gal. pail 55 gal. drum)
- two coats 470	4600 psi (31.7 MPa)	• Pot Life	Indefinite
New pour, untreated:	4900 psi (33.7 MPa)	• Shelf Life	12 months at 5-24°C (41-75°F)
- one coat 470	6000 psi (41.3 MPa)	• Clean-Up	Water
• Flash Point	None		

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## APPLICATION INSTRUCTIONS

Mix **CRYSTAL-LOK** thoroughly before using and keep it agitated during use as the active ingredients are in suspension and will settle. Do not thin in any way.

**Fresh Concrete-CRYSTAL-LOK** is applied to green concrete as soon as the surface water sheen has disappeared and the concrete can be walked upon. On vertical, formed surfaces, **CRYSTAL-LOK** is applied as soon as the forms have been stripped.

**Old concrete**-Surfaces to be treated should be swept or brushed clean and then tested for absorption by sprinkling water on them. If the water drops bead up and are not readily absorbed by the concrete, the surface must have been previously coated or oiled and it must therefore be cleaned before **CRYSTAL-LOK** application. **CRYSTAL-LOK** must be absorbed into the slab to be effective. Oil or other stains must be removed before applying **CRYSTAL-LOK**. Wash the surface with a strong stripper such as a 7:1 solution of muriatic acid and/or a strong detergent such as trisodium phosphate. Rinse thoroughly with water and remove excess water. Puddled water must be removed.

## COVERAGE

**CRYSTAL-LOK** is best applied by low pressure spray, although it can be applied with a roller or brush. **470** is normally applied in two light coats, the second as soon as the surface is dry to the eye, with each coat averaging between 300 and 400 square feet per gallon (75 and 100sf/L). If the application is in one coat, coverage should be about 190 square feet per gallon (50 sf/L). Absorption amounts will vary according to the porosity of the concrete. For a harder surface apply one coat of **470** at the rate of 300 square feet per gallon (75 sf/L) followed by one coat of **473** at the rate of 300 square feet per gallon (75 sf/L). For chemical hardening, for very porous concrete, or to maximize resistance to stains or mild acids apply a 2<sup>nd</sup>. coat of **473** until the surface is saturated. The surface will show a light sheen when saturation is reached. A blooming or whitish deposit sometimes forms on the surface if ponded areas are left to dry. To avoid this blooming effect make sure that **CRYSTAL-LOK** is not allowed to pond on the surface or flush the surface with clear water 30 to 45 minutes after application to remove any ponding residue. If residue remains after drying, brush with a stiff broom and dilute with **CRYSTAL-LOK** to remove if necessary.

## SPECIAL HANDLING

Do not spray or allow overspray on glass or aluminum, it causes etching. Any compound sprayed on glass or aluminum should be immediately rinsed off. Do not allow the product to puddle or allow water to stand on the surface immediately after application, it can leave a residue that is difficult to remove. Rinse the job thoroughly after application whenever possible and use lighter coats if necessary. If difficult residue is formed, try scrubbing with a stiff brush and water pressure, and if necessary, dilute the residue with more **CRYSTAL-LOK**. Tilt up slabs or other preformed units treated with **CRYSTAL-LOK** and stacked in contact with one another may be bonded together unless a bond breaker is applied, after the **CRYSTAL-LOK**, over the surface that will be in contact. **CRYSTAL-LOK** is compatible with most bond breaker systems, check with manufacturer. **CRYSTAL-LOK** should not be applied when ambient temperature is at or below freezing. **CRYSTAL-LOK** should not be applied where rain or other water is running over the surface or while there are puddles of water on the surface or when rain is imminent.

Do not allow **CRYSTAL-LOK** to freeze and do not use any **CRYSTAL-LOK** that has been previously frozen.

## SAFETY

Please refer to the Material Safety Data Sheet

Manufactured by:

IMCO TECHNOLOGIES INC., 350 Wentworth Street, Hamilton, Ont., L8L 5W3 Tel(905) 546-5225

## WARRANTY DISCLAIMER:

The information herein is to assist customers in determining whether our products are suitable for their application. Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to the contents and suitability. We warrant that our products will meet our written specifications. Nothing herein shall constitute a warranty expressed or implied, including any warranty of merchantability or fitness, nor is protection from any loss or patent to be inferred. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.