



**470C**  
**CRYSTAL-LOK™**  
**CONCENTRATE**  
 By Imco®

**DESCRIPTION**

A versatile, concentrated, clear, water-based penetrating sealer designed for application to the surface of concrete, above or below grade, interior or exterior. **470C CRYSTAL-LOK™ CONCENTRATE** is a concentrated version of our time proven ready-to-use CRYSTAL-LOK™ Sealer and must be diluted with water to different concentrations for different applications.

**BASIC USES**

Brushed, rolled or sprayed on concrete for sealing, hardening, dust proofing, 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 470C CRYSTAL-LOK™ CONCENTRATE**

- 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**

(Testing done at 4:1 water dilution of **470C CRYSTAL-LOK™ CONCENTRATE**)

Once diluted with water, **470C CRYSTAL-LOK™ CONCENTRATE** 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
- two coats	4600 psi (31.7 MPa)	Pot Life	Indefinite
New Pour Treated	4900 psi (33.7 MPa)	Shelf Life	12 months at 5-24°C (41-75°F)
- one coat 470	6000 psi (41.3 MPa)		
Flash Point	None	Clean-up	Water

# 470C CRYSTAL-LOK™ CONCENTRATE By Imco®

## APPLICATION INSTRUCTIONS

Mix 470C CRYSTAL-LOK™ CONCENTRATE thoroughly with water before using and keep it agitated during use as the active ingredients are in suspension and will settle.

**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 and the surface rubbed, if required.

**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 with a squeegee. It is not necessary to dry the surface before applying CRYSTAL-LOK™, but puddles must be removed.

**Mixing Ratio:** 470C CRYSTAL-LOK™ CONCENTRATE can be mixed from a 2:1 mix with water to a 4:1 mix (4 parts water: 1 part 470 Concentrate). The more dilution of a mix (4:1 with water) will penetrate deeper and conversely more concentrated mixes (2:1) will penetrate less. For most applications a first coat mixed 4:1 with water applied to 300 sq. feet per gallon (75 sq. feet/L) and a second coat at a 3:1 mix with water applied at 300 sq. feet/gallon (75 sq. feet/L) will provide the best results and will waterproof and dustproof concrete. For chemical hardening, wait at least 12 hours and apply an additional coat at a 3:1 mix or until the surface is saturated. For very porous concrete or to maximize surface hardening and resistance to stains and mild acids, apply an extra coat at a 2:1 mix which can be buffed into the concrete surface. CRYSTAL-LOK™ is best applied by low pressure spray, although it can be applied with a roller or brush. Absorption amounts will vary according to the porosity of the concrete.

**Duration** – Spraying time on most jobs is a matter of minutes. If more than one application is required, the second application should not be made for at least 12 hours. Foundations below grade may be back filled with earth after 12 hours of treatment. Floors may be walked on in 3 hours or when the surface appears completely dry. A blooming or whitish deposit sometimes forms on the surface. It is recommended that CRYSTAL-LOK™ not be allowed to pond for any period of time and that the surface be flushed with clear water 10 to 15 minutes after application. 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, over the CRYSTAL-LOK™. 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 MSDS at [www.imcotechnologies.com](http://www.imcotechnologies.com)

## 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.