



CRYST-O-SEAL

WATERPROOFING BY CRYSTALLISATION

Description

CRYST-O-SEAL is a ready-for-use (merely add water) concentrated, high strength, cement-based waterproofing slurry which provides excellent waterproofing by crystallisation to both sides of the substrate. It consists of a blend of cements, graded quartz and active chemical constituents. It is supplied as a fine, grey powder. The material waterproofs sound concrete or cement surfaces against water ingress, dampness, ground water and hydrostatic pressure.

Principal Uses

CRYST-O-SEAL is an economical, easily applied method of providing a permanent waterproof barrier on concrete, cement, plaster and cement brick surfaces. It may be used on both new and existing structures on either the wet or the dry side.

CRYST-O-SEAL finds application in:

- Foundations
- Basements
- Tunnels
- Retaining Walls
- Dams
- Ponds
- Pools
- Silos
- Sewage Plants
- Underground structures

Action

CRYST-O-SEAL acts by the conversion of the free lime in the concrete to insoluble calcium compounds. These seal against capillary ingress of water into the dry slurry film. Water soluble materials in the slurry penetrate the substrate surface where they in turn crystallise

and continue to react in the presence of moisture.

CRYST-O-SEAL must not be exposed to water pressure, running water or rain, until it has fully set. The treated surface must be protected from heat and wind and drying should be as slow as possible.

NB: Since the CRYST-O-SEAL system is based on a chemical reaction taking place inside the concrete, some moisture penetration can be expected until voids are sealed by the crystallisation process.

Surface Preparation

CRYST-O-SEAL is designed for use on porous, concrete or cementitious surfaces.

All surfaces must be **clean** and **sound**. They must be free of laitance, formwork release agents, dust, loose particles and any other foreign matter including fungal growth.

Large cracks and honeycombing should be given a thin coating of CRYST-O-SEAL mixed as described below. They should then be filled with a non-shrink mortar prior to applying the overall CRYST-O-SEAL treatment.

A fillet should be formed using CRYST-O-SEAL in a slightly stiffer version in all floor/wall joints prior to applying the CRYST-O-SEAL in the specified manner.

Mixing

CRYST-O-SEAL only needs the addition of water to be ready for use.

Mix CRYST-O-SEAL with water to produce a viscous, creamy consistency (1 part clean water to approximately 2.5 parts CRYST-O-SEAL). Mixing may be done by hand or mechanical mixer and should be continued until a homogenous, lump free product results. In manual mixing lumps may be broken down with a gloved hand. On completion of mixing, material must be used within 30 minutes.

Never attempt to reconstitute by further dilution after mixed material has become too stiff to apply.

Application

Any surface to be treated with CRYST-O-SEAL must be fully saturated beforehand, preferably the day before. Surfaces such as floors must be free of ponded water and verticals must be free of water running down the face.

Apply CRYST-O-SEAL using either a medium-hard block brush, trowel, broom or roller.

Treatment must be applied in two or three coats as indicated below. A second coat must be applied as soon as the first coat can no longer be disturbed by brushing. If a third coat is required it must follow within 24 hours, with the surface having again been pre-dampened.

The final coat of a system, be it two or three coats, must be left as smooth as possible.

Properties of CRYST-O-SEAL

Appearance: Fine powder which is somewhat hygroscopic.

IMPORTANT

The product information contained in this data sheet is given in good faith based upon our knowledge and current information and does not imply any warranty. The information contained herein is provided on the basis that the product is applied in a proper manner strictly in accordance with instructions onto correctly prepared surfaces which shall remain sound, stable and free of cracking or movement. Instruction application deviation may diminish or negate the performance of the product. Under no circumstances will the Company be liable for any loss, consequential or otherwise, arising from the use of the product. We reserve the right to amend specification and application techniques without prior notice.

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The Ultimate in Waterproofing & Protective Coating Technology

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Bulk density: 1.1kg per 1.

Service temperature (fully cured):
-50° to 80°C

Shelf life: 6 months in sealed unopened bag

Colour: Grey

Application temperature: Above 5°C

Physiological effect: As cement

Storage conditions: Store under cover in cool, dry conditions

Packaging: 20kgs bags

Application Rates

1. Waterproofing external surfaces against ingress of water from damp earth and moist ground
Two coat using 1kg to 2kg/m² x per coat.

2. Waterproofing internal surfaces against rising damp or up to 1m head of underground water.

Two coats using 2kg to 4kg/m² x per coat.

Treated floor surfaces must be protected against subsequent traffic with a cement rendering.

3. Waterproofing internally to retain water as in reservoirs.

Two to three coats using 2kg/m² x per coat.

4. Waterproofing externally against more than 1m head of underground water, water pressure, surfaces below the water table, earth covered

slabs.

Three coats using 2.5kg/m² x per coat.

NOTE:

These application rates are based on product being applied to surfaces which have been correctly repaired and are free of excessive voids, roughness and other imperfections.

Limitations

Cryst-O-Seal will not seal open, live cracks subject to movement.

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