



PRODUCT DATA SHEET

CRYST-O-SEAL

CEMENTITIOUS WATERPROOFING SLURRY

DESCRIPTION

CRYST-O-SEAL is a ready-for-use (merely add water) cement based waterproofing slurry. 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 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
- Supporting 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 BACKWATER 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.

N.B. 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, absorbent surfaces. Highly porous surfaces such as common bricks should be plaster rendered before waterproofing.

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 3:1 sand/cement 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 homogeneous, lump free product results. In manual mixing lumps may be broken down with the gloved hand.

On completion of mixing, material must be used within 30 minutes.

NEVER ATTEMPT TO RECONSTITUTE, BY FURTHER DILUTION, MIXED MATERIAL THAT 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 by hand using either a medium-hard block brush or a notched trowel.

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.

On horizontal surfaces CRYST-O-SEAL is normally applied by brush, although the second coat of a three coat system may be notched trowel.

PROPERTIES OF CRYST-O-SEAL

Appearance: Fine powder which is somewhat hygroscopic.

Bulk density: 1.1 kg per l.

Service temperature (fully cured): -50°-+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

Packing: 20Kg AND 5Kg

Vertical surfaces, except for the final coat of the system are usually applied by notched trowel.

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

APPLICATION RATES

1. Waterproofing externally against damp earth and moist ground.

2 Coats using 1 to 2kg/m².

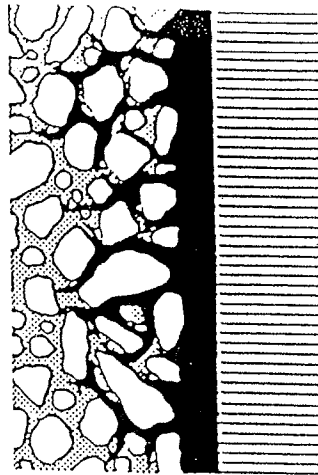
2. Waterproofing internally against rising damp or up to 1m head of underground water. 2 COATS using 2kg TO 4kg/m².

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

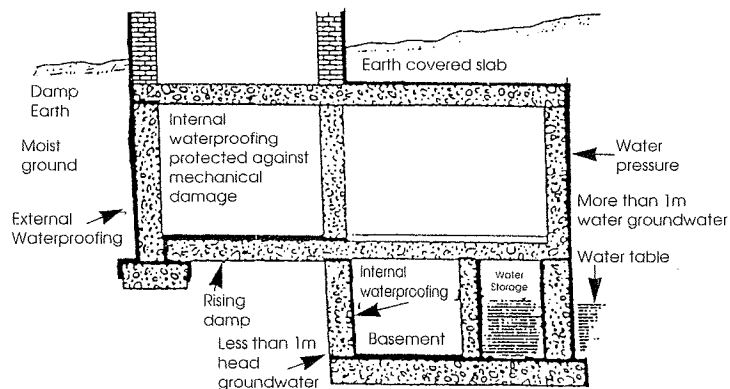
3. Waterproofing internally to retain water as in reservoirs.

Waterproofing externally against more than 1m head of underground water, water pressure, surfaces below the water table, earth covered slabs, earth covered slabs.
3 COATS using 5 to 7kg/m².

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



HOW CRYST-O-SEAL PROVIDES A WATERPROOF SURFACE



**DURAM INDUSTRIES
NZ LTD**

P.O. Box 25 483, St Helliers
3/65 Elizabeth Knox Place,
Mt Wellington, Auckland
Ph (09) 527 0551; Fax (09) 527 0552

The information contained herein is given in good faith based upon our experience, knowledge and current information but without guarantee and the company accepts no liability whatsoever for its accuracy nor loss or damage arising therefrom. The information is given as a guide only and should not be construed as a full specification. Further information should be sought from the company or agents regarding specific projects or applications.

DURAM INDUSTRIES PTY LTD A.C.N. 002 968 809

NEW SOUTH WALES: 24 Mary Parade, Rydalmere N.S.W. 2116 TEL: (02) 898 0199 FAX: (02) 898 0424
WESTERN AUSTRALIA: 10 Church Road, Maddington W.A. 6109 TEL: (09) 459 0700 FAX: (09) 459 0512
QUEENSLAND: Suite 8/503 Gympie Road, Strathpine QLD 4500 TEL: (07) 881 0633 FAX: (07) 881 2143
NEW ZEALAND: 3/65 Elizabeth Knox Place, Mt Wellington Auckland N.Z. TEL: (09) 527 0551 FAX: (09) 527 0552