

Crystal Sealer

Packaging



Mixing



Application



Uses



Substrates

Concrete
Cement render
Cement block

Waterproofing compound

Description

A cement-based, waterproofing compound that chemically reacts with moist cement-based substrates. **Crystal Sealer** forms insoluble crystals in the capillary tracts of the substrate, permanently waterproofing the surface yet still allowing the surface to breathe.

Uses

Waterproofing of cement-based surfaces, i.e., cement block, cement render and concrete floors, in domestic, commercial and civil constructions, foundation walls, concrete block walls in warehouses and domestic constructions, tunnels and dams, waterproof barrier between base floor slabs and concrete toppings.

Features

- Penetrates into and becomes a permanent integral part of the surface, therefore it can not peel or blister off as do normal coatings.
- Will not tear or puncture and does not have to be protected from back fill.
- Being a cement based material, **Crystal Sealer** has an expansion and contraction the same as the cement surface to which it is applied.
- Crystals can grow up to 0.4 metres into the concrete in the presence of water. Crystals grow approx. 1cm depth per week.

Performance Data

Withstands over 100 metre water head. Resists harsh chemicals, e.g. chlorine, ethylene glycol, unleaded petrol and diesel oil.

Protects – reinforcing bars from corrosion.

Strength – Increases concrete strength by up to 20%.

Coverage (Approximate)

0.8-1.1 kg/m²/coat (2 coats required)

Specification

The waterproofing compound shall be a cement based compound that seals cement based surfaces by crystallisation and can withstand up to a 100 metre head of water such as **Crystal Sealer** manufactured by **Construction Chemicals** and shall be applied strictly in accordance with the manufacturer's instructions.

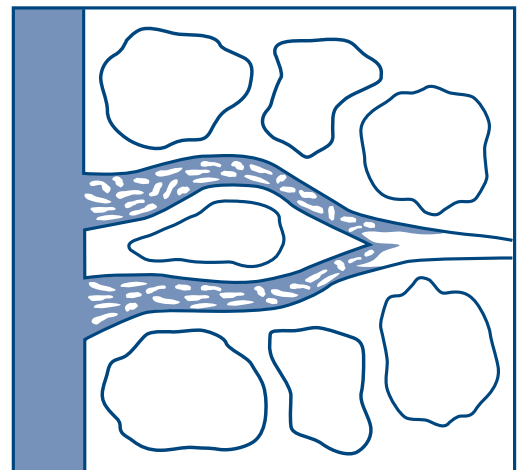
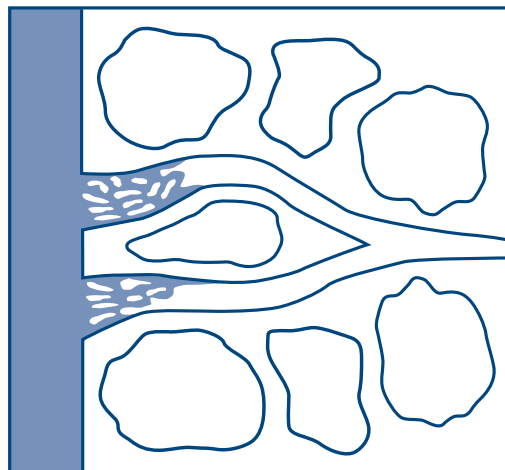
Surface Preparation

Apply to portland cement based surfaces that are free from dirt, dust, grease, oil, efflorescence and other contaminants.

Clean out and patch cracks larger than 0.25mm thick. Mechanically roughen smooth surfaces.

Use caustic soda solution to clean grease and oil contaminated surfaces then thoroughly hose down to completely remove contamination. Badly contaminated areas may require sand blasting to provide a positive key. Gloves and eye protection must be used when using acids and cleaning agents. **The concrete/cement surface to be coated must be thoroughly saturated prior to coating (this will enable crystal growth back into the wall and allow the Crystal Sealer to hydrate/ cure correctly).** Concrete three days old will only require surface wetting.

Crystals grow in the capillaries of cement based surfaces in damp conditions by 1cm/week up to a depth of 0.4 metres.



Mixing

Mix only the amount that can be applied in 10-15 minutes. Add 5kg to 1.5 litres of water and mix to a thick paste. Mix thoroughly and add remaining water to bring the mixture to the desired consistency. The final powder water ratio will be approximately 5kg powder - 2 litres of water. Note the final powder water ratio so that future batches can be made the same. Discard unused material after 20 minutes and do not add additional water after the second mix.

Application

Crystal Sealer must only be applied to green or thoroughly wet cement based substrates. Apply with a stiff brush or broom working the mixture well into the voids. To prevent segregation and ensure a uniform mixture stir the **Crystal Sealer** solution frequently during the application and dip brush deep into the mixture so that a thick coat can be applied. Apply a second coat while the first is still green or tacky.

Overcoating

Overcoating is not recommended as the **Crystal Sealer** will need to breath, but can be render coated by neutralising the surface by scrubbing with clean water. Allow to cure 21 days then prime with **Primax** prior to render application.

Set Time

20-30 minutes depending on temperature.
Back fill 24 hours after application.

Curing

Protect the surface from rain or frost until it has cured. **Water cure the treated surface by mist spraying with water 3-4 times daily for 3 days to hasten crystal growth.**

Precaution

Crystal Sealer is alkaline so gloves must be worn. Wash splashes immediately off skin and eyes with clean water.

Shelf Life

12 months



Adelaide (08) 8243 7888 **Brisbane** (07) 3271 2944
Darwin (08) 8947 1811 **Melbourne** (03) 9761 4711
Perth (08) 9356 9999 **Sydney** (02) 9756 3533
Auckland (09) 273 5444 **Kuala Lumpur** (603) 5122 2522

www.constructionchemicals.com.au