

CHRYSTASEAL

WATERPROOFING BY CRYSTALLIZATION WITH IMPROVED ELASTICITY

DESCRIPTION

Chrystaseal is an economical, cement based waterproofing material. It is applied as surface treatment on concrete brickwork and block work. It provides a deep seal penetration and permanent protection against fresh and salt water under pressure.

Chrystaseal has been tested accordance with BS 6920: 1988 to meet the requirements of the water research council for use with potable water.

Successful test include:

1. Effect on taste, odor, color and turbidity.
2. Toxic metals
3. Cyto-toxicity
4. Microbiological growth.

ADVANTAGES

- Can withstand up to 70 m hydrostatic pressure
- Complies with BS 6920: 1988 and is WRC approved
- Waterproof weather applied internally and externally
- Cured coating reduces risk of efflorescence and salting
- Good adhesion
- Elastic - compensates for small surface movements
- Non-toxic
- Durable - lasts as long as the concrete
- Economical and simple to apply

HOW CEMTEC TAMSEAL 20 WORKS

Chrystaseal penetrates into the pores of the material by capillary action and is channeled to the lower depth of the concrete by the moisture present, even into the smallest pores and capillaries.

The alkali silicates combine with the water and free calcium particles, forming crystals. This is known as crystallization process. Once the crystals have formed, they remain permanent.

Further contact with water will reactive the sealing process. Thus the lower depths of the concrete form an integral mass with the surface, which cannot be blown off by hydrostatic pressure.

USES

Chrystaseal is non-toxic and waterproof whether applied internally or externally, so it can be used for many applications including the waterproofing and protection of:

- Water tanks
- Dams
- Tunnels
- Bridge decks
- Foundations
- Reservoirs
- Dock gates
- Swimming pools
- Retaining walls
- Sewage treatment works

SPECIFICATIONS

Supply Form - Powder

Color - Cement gray

Mixed Density - 2.0 kg.

Application Temp - >5° C.

Pot life - 20 minutes

Initial set - 60 minutes

Bonding Strength - >1.2 MPa

Toxicity - Non-toxic

SURFACE PREPARATION

All concrete to be treated with Chrystaseal must be clean and have an "open" capillary system. Remove latence, dirt, grease, etc. by means of high pressure water jetting, wet sandblasting or wire brushing. Faulty concrete in the form of cracks, honey combing, etc. must be chased out, repaired and made good. Surfaces must be carefully pre-wetted prior to application.

The concrete surface must be damp but not wet.

MIXING

For application as a slurry, Chrystaseal requires approx. 8-9 liters of clean water to a 25 kg bag of material. Mix only as much material as can be used within 20 minutes and stir mixing frequently. If the mixture starts to set do not add more water, simply remix to restore workability.

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SLURRY APPLICATION

Apply Chrystaseal in one or two coats according to specifications by masonry brush or appropriate power spray equipment. When two coats are specified apply the second coat whilst the first is still "Green".

DRY SHAKE

(For horizontal surfaces only)

The specified amount of Chrystaseal will be distributed in powder form through a sieve and trowelled into the freshly-placed concrete once it has reached initial set.

CURING

The treated areas should be kept damp for a period of 5 days and must be protected against direct sun, wind and frost by covering with polythene sheets, damp hessian or similar.

COVERAGE

Concrete surface to be back filled Two coats of Chrystaseal at 0.75 kg/Sqm.

Brush or spray applied.

Water retaining structures, internal concrete wall surfaces. Two coats of Chrystaseal. The first at 0.75 kg/Sqm. The second at 1Kg/Sqm. brush or spray applied.

Concrete Slabs

Chrystaseal at 1 kg/Sqm. Applied in one slurry coat to hardened concrete or dry sprinkle and trowel applied to fresh concrete when it has reached initial set.

CLEANING

Tools should be cleaned with water before the material hardens.

SHELF LIFE

Chrystaseal can be stored in tightly sealed original bags for 12 months if kept dry and at moderate temperature.

PACKING

25 Kg bag

CAUTION

Water leakage, must be pre-sealed by means of a quick set plugging mortar Dam it or by injection. During the application of Chrystaseal, no pressurized water should be allowed to seep through the substrate. Slurry installations which may be exposed to mechanical stress, should always be covered with earth or with another protection layer.