

# POWER CRYSTALLINE SEAL

A Crystalline, Deep penetrative capillary Waterproofing system



## PRODUCT DESCRIPTION

Power Crystalline SEAL contains moisture activated additives that play a major role as catalyst in the formation of water-insoluble crystalline micro structure deep within the capillaries & interstices of cementitious matrix of concrete and mortar. As the crystalline capillary waterproofing system enables effective pore sealing it does not rely on film formation on the surface and is not affected by the negative hydrostatic pressure.

## ADVANTAGES & BENEFITS

- Permanent solution to water leakage, ingress, or seepage in concrete structures or any cementitious substrate. The formation and development of insoluble crystals into water bearing capillaries and interstices effectively blocks the further passage of water and ensures permanent water tightness for the life of the structure.
- Provides total and permanent waterproofing properties by becoming an integral part of the structure to which it is applied. Active ingredients will not delaminate, peel off or wear away.
- Protects concrete and reinforcement against corrosive waterborne substances.
- Crystalline action is reactivated by contact with water providing dormant additional protection.
- Effective against both positive and negative Water pressure.
- Non-toxic or non-tainting.

## PACKAGING

- Supplied in: 25 Kg bag
- Storage: Dry; Frost free, out of direct sunlight
- Shelf life: 12months
- Hazard class: No dangerous goods, Observe.

## SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Reseal containers after use. Power Crystalline Seal should be handled to minimize dust formation during mixing. Use a light mask if excessive dust is unavoidable. For further information refer to the material safety datasheet.

## PROCESSING

**Surface Preparation:** Quality of substrate preparation directly affects the performance system. Surfaces to be treated must be free from dust, oil, grease, paint residual curing compound, mould oil or any previous surface treatment that will impair adhesion of the Power Crystalline Seal treatment, or inhibit penetration of the chemicals or water into the surface.

These include polymer modified renders and those substrates treated with silicon or silane water repellents. Remove any laitance and provide an open pored, slightly rough surface sufficient to act as a mechanical key, C2 treatment. Areas of weak or honeycombed concrete must be repaired. Hollow, de bonding renders must be removed and made good. Surfaces to be treated if not already wet, should be saturated for a period of 24 hours before first applications.

**Application:** Power Crystalline Seal mixes are applied by brush or spray onto the dampened substrate. Apply the material in 2 coats at right angles, the second coat whilst the first is firm, but 'green' - usually 3-4 hours after first coat (dependent on temperature). For old concrete, brickwork and granular concrete blocks, replace the second coat with a render 5-10mm thick.

## EXISTING STRUCTURE

Structures subject to water leakage or ingress must be carefully inspected to determine the cause. Any water present should be cleared away so that a thorough survey can be conducted. Static cracks over 1mm must be chased out, dampened down and repaired with Power Crystalline Seal.

**Mixing:** Always add water to Power Crystalline Seal -not in reverse order. Mix 1 part of water to 2.25 - 2.5 parts of powder by volume.

**Curing:** Power Crystalline Seal must be prevented from drying out too rapidly and should be kept damp for 5-7 days. Mist spraying with water and covering with polythene is effective when drying out would otherwise take place. Curing compounds are unsuitable for use with Power Crystalline Seal system technology. Protect from weathering, sun, frost and wind for a similar minimum period.



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## FIELD OF APPLICATION

WATER RETAINING	WATER EXCLUDING
Water tanks / towers	Basements
Reservoirs	Tunnels
Swimming pools	Inspection pits
Water treatment works	Foundations
Dams	Retaining walls
Canals	Lift shafts
Harbors	Construction joints
Concrete pipes	Sea defense walls
Bridge decks	
Jetties	
Pontoons	

## TECHNICAL PROPERTIES

CATEGORY	PARAMETERS
Color	Powder Grey
Coverage	The material shall be applied at the rates and in the manner recommended
Unmixed	1 kg / m <sup>2</sup>
Consumption	1 kg / m <sup>2</sup> Per coat, minimum two coats

## DIRECTION OF USE

**New Construction:** The vast majority of leaking water retaining (or excluding) structures constructed of sound dense concrete, leak only at construction or day work joints. Costly remedial work can be avoided by the use of Power crystalline Seal as a dry shake onto the horizontal surfaces of joints or as a slurry application on vertical surfaces. In conditions of high-water table Power Crystalline Seal may be applied as a slurry or dry shake over building concrete immediately prior to casting the slab. This sandwich system will prevent ingress of ground water preventing deterioration, and dampness or flooding. Foundations should be treated on the external face wherever possible, as should the face of construction joints. Power crystalline Seal can be applied immediately after the form work has been removed, as the water curing process required will also ensure full hydration of the concrete. If the treatment is to be exposed and an aesthetically pleasing finish is required, the Power Crystalline SEAL after curing should receive a sand/cement render on which to apply the desired finish.