

Crystalseal

Surface Applied Capillary Waterproofing Cementitious Coating

Description	The Crystalseal waterproofing coating ensures the total and 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 effectively block the further passage of water and ensures permanent water tightness for the life of the structure Crystalseal is approved by the National Organization For Potable Water & Sanitary Drainage for drinking water and sewerage applications
Where to use	<u>For structures experience or exposed to a Positive/Negative ingress:</u> • Water tanks/towers • Reservoirs / Swimming pools • Planters & Green roofs • Water treatment works • Dams & Canals & Harbors • Basements • Tunnels • Inspection pits • Foundations • Retaining walls
Advantages	• 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 tainting • Anti-root complying with EN - 13948 • Reliably self-seal hairline cracks up to 0.2 mm and effectively heals micro-cracks to the depth of 20 mm
Properties	
Form	Powder
Color	White, Grey
Density	2 Kg/L
Pot life @ 23 °C	30 min
Compressive strength after (28 days)	> 30 N/m ² ASTM C109
Flexural strength after (28 days)	10 – 12 N/mm ² ASTM C348
Bond strength in shear after (28 days)	1.17 N/mm ² ASTM C321
Water Permeability Pressure	15 Bar -Ve/+Ve DIN 1048
Water Vapor Transmission	0.012 Perms

Surface Preparation	- Surfaces to be treated must be free from dust, oil, grease, paint residual curing compound, and mold oils - Remove any laitance and provide an open-pored, slightly rough surface sufficient to act as a mechanical key, essential for adequate adhesion of the Crystalseal treatment - Areas of weak or honeycombed concrete must be repaired - Hollows, de-bonded renders must be removed - Surfaces should be saturated before first applications
Mixing	- Add (8 – 8.5 L) of clean water to 25 Kg Sack of product - Place 3/4 of potable water into a suitable mixing container - Add Crystalseal powder to the clean water while mixing in a low speed to homogenize the material - Mechanical mixing must be used to ensure complete dispersion of the powder component, and then add the remaining clean water and mix for an additional three minutes
Application	Crystalseal mixes are applied by brush or spray onto the dampened substrate - Apply the material in 2 coats at right angles, starting horizontally from bottom-up, the second coat should be vertically whilst the first is firm, but 'green' - usually 3-4 hours after the first coat (depends on temperature) or a maximum of 24 hours - For old concrete, brickwork, and granular concrete blocks, replace the second Crystalseal coat with a render 5-10 mm thick by mixing 5.5 – 6 L of clean water to 25 Kg Sack of product
Curing	Crystalseal 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 - Protect from weathering, sun, frost, and wind for a similar minimum period
Theoretical coverage	Two-coat slurry application: Crystalseal: 0.8 - 1 Kg / m² / coat Application of render coat: Crystalseal: 10 Kg per m² at 5 mm thick
Packaging	Crystalseal is supplied in 25 Kg sacks of powder
Shelf life & Storage	12 months when stored in accordance with manufacturer instructions
Health and Safety	- Use gloves to avoid contact with skin - If skin comes in contact, wash immediately with soap and water - Do not use solvents - Eye contamination must be immediately washed with - Water, and then seek medical treatment
Additional Information	PROKEM provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range. For our customer's satisfaction PROKEM reserves the right to change the properties of its products All orders are accepted subject to our current term of sale & delivery Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request PROKEM extends technical services to include after-sales support to assist users in the proper handling of our products