


**Jubiguard**

# CRYSTASHIELD 1K

**SURFACE APPLIED CRYSTALLINE WATERPROOFING SYSTEM FOR CEMENTITIOUS SUBSTRATES**


JUBIGUARD CRYSTASHIELD 1K crystalline waterproofing system contains a proprietary blend of high-quality cement, finely graded sand, and active special chemicals. In the presence of moisture, the active chemicals in JUBIGUARD CRYSTASHIELD 1K penetrate concrete and react chemically with free lime to produce insoluble crystals. This crystalline growth reduces porosity by blocking capillaries and filling hairline non-structural cracks (up to 0.4 mm wide) caused by shrinkage or expansion. Unlike metallic and membrane types of waterproofing, which only form a surface barrier, JUBIGUARD CRYSTASHIELD 1K crystalline waterproofing system, in the presence of water, continues producing crystals, ensuring lasting imperviousness to water.



## Application Areas

JUBIGUARD CRYSTASHIELD 1K crystalline waterproofing system is used for waterproofing against the positive or negative sides of hydrostatic heads of water, for damp proofing, repairing cracks, plugging holes, sealing wall - floor joints and stopping active leaks in a wide variety of conditions including :

- Water Retaining Structures
- Water tanks & Reservoirs.
- Swimming Pools.
- Water Treatment Works.
- Water Excluding Structures
- Foundation & Basements.
- Inspection Pits & Lifts Shafts.
- Retaining Walls & Sea Defence Walls.
- Dams & Canals.
- Concrete Pipes.
- Harbours.
- Tunnels & Subways.
- Construction Joints.
- Bridge Decks.
- Jetties.



## Technical Details

Properties	Values	Test Standards
Colour	Grey	-
Form	Powder	-
Bulk Density	1.20 ± 0.05g/ml	ASTM D 6683-19
Potlife	25 mins ± 5	ASTM C 150
Adhesion Strength	>1.2N/mm <sup>2</sup>	ASTM D 7234-21
Compressive strength after 7 Days	25N/mm <sup>2</sup>	ASTM C 307
Compressive strength after 28 Days	45N/mm <sup>2</sup>	ASTM C 307
Initial Setting Time	120 mins @28°C	ASTMC191-82
Final Setting Time	16 hrs @28°C	ASTMC191-82


**Pack Sizes**  
 25 kg



## Features



### Waterproofing

Stops water movement through concrete, becomes integral part of the structure.



### Prevent Corrosion

Protects reinforcing steel against corrosion



### Sealing

Waterproofs minor cracking & seals shrinkage cracks up to 0.4 mm width.



### Permeability

Resists permeation of water from positive & negative side of the concrete.



### Chemical activation

It's waterproofing capability increases with time. i.e. It remains permanently active.



### Abrasion

Does not get affected by surface wear or abrasion, once the penetration is complete.



### Hydrostatic pressure

Treated concrete withstands hydrostatic water pressure up to 15 metre head.



### Ease of application

Only to be mixed with water at site.



### Protection

Protects concrete against contaminated water & corrosion.



## Coverage

- **For Brush Application:** 1-1.5 kg/sqm based on recommendations.
- **For Dry Shake:** Spread rate is 1.5-2 kg/sqm in 2 spreads.
- **For Spray Application:** 1-1.5 kg/sqm



## Shelf life



### Best before 18 months

in sealed pack under proper storage.

- Failure to comply with the recommended storage conditioning may result in premature deterioration of the product or packaging.



## Health & Safety

- JUBIGUARD CRYSTASHIELD 1K is safe, non-toxic, and eco-friendly and presents no health hazard. As with all chemicals, caution should always be exercised.
- Use protective clothing such as rubber hand gloves & safety goggles, while using JUBIGUARD CRYSTASHIELD 1K.
- In case of contact with skin, wash with plenty of water.



## Precautions & Limitations

- Recommended dosage to be followed to achieve desired results.



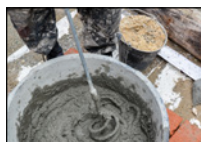
## Method of Application

### Surface Preparation



Prepare the surface by removing dirt, loose particles, and paints mechanically. Repair cracks and damaged areas. Vacuum clean to a sandpaper-like finish for effective penetration of JUBIGUARD CRYSTASHIELD 1K. Rinse thoroughly until the surface is damp but without standing water.

### Mixing



- Mix JUBIGUARD CRYSTASHIELD 1K powder with water in a ratio of 5 parts powder to 2 parts water for waterproofing, and 5 parts powder to 1 part water for repairs.
- Stir well to achieve a lump-free mixture. Only mix quantities to be used within 30 minutes.
- Use clean water and mix mechanically to a thick consistency.
- Measure powder and water in separate containers of the same volume.

### Structural Crack Repairs



For cracks larger than 0.4 mm or actively leaking, follow these repair steps:

- Chip defects to a depth of 40 mm and width of 22 mm.
- Avoid "V"-shaped slots; use dovetailed or similarly interlocking cuts.
- Clean and wet the slot, then apply a brush coat of JUBIGUARD CRYSTASHIELD 1K. Let it dry for 10 minutes.
- Fill the cavity tightly with Dry-Pac using a pneumatic packing tool or hammer with a wooden block.

### Slurry Coat Application:

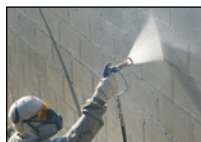
On Existing or Old Substrates with Dampness



- Thoroughly prepare the surface by mechanical means to expose concrete pores for JUBIGUARD CRYSTASHIELD 1K penetration.
- Fill crevices and holes with a mix of JUBIGUARD CRYSTASHIELD 1K powder and water (5 parts powder to 1 part water).
- Apply JUBIGUARD CRYSTASHIELD 1K (mixed 5 parts powder to 2 parts clean water) over a damp concrete substrate using a clean brush or wooden float in circular motions. Apply a second coat after 3 to 6 hours.
- Allow JUBIGUARD CRYSTASHIELD 1K treated surface to cure for 2-3 days, protecting it from direct sunlight during this period. Full cure takes 28 days.

### Dry Shake Application:

On fresh Concrete in Floors, Slabs & Horizontal Surface



- Sprinkle JUBIGUARD CRYSTASHIELD 1K crystalline coating (1.5 kg per sqm) onto fresh concrete using a mechanical spreader or similar device after consolidation.
- Work the powder into the surface with a trowel during finishing.
- If applying in direct sunlight, cover the slab with a rigid sheet, leaving a gap for air circulation.
- Remove the sheet after 48 hours and regularly water pond the treated area for curing.

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**For Feedback/complaints, write to Product Manager, CPD, Jubilant Agri and Consumer Products Limited**

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