Assess Build Chem Pvt. Ltd.
A World of Concrete Solutions

SS - CrystoSeal 1K

Single Component, Cementitious Crystalline System for Waterproofing of Cement Bound Substrates and Masonry by Dry-Shake or Coating Application

General

SS - CrystoSeal 1K is a single cementitious component powder, which when mixed with water forms a chemically active slurry that functions on the principle of crystallisation. It is composed of a cementitious binder, well graded fillers and a combination of active chemicals and additives. Due to its formulation, the active substances in **SS - CrystoSeal 1K** penetrates into the substrates by osmotic action, hydrates to form insoluble crystals and thereby blocks the penetration of water into the substrate, through capillaries and cracks. **SS - CrystoSeal 1K** is not very flexible, and hence is most suitable for waterproofing of indoor areas, masonry structures and as a dry-shake broadcasted material for RCC floor slabs.

SS - CrystoSeal 1K forms a breathable (allows water vapour diffusion) cover that forms an integral part of substrates and shows extreme resistance to water ingress, both on the positive as well as negative side. It reacts with any free lime present in the substrate to form denser hydrates, that prevent any movement of water.

This feature drives its use as a material that can be broadcast on a fresh cast floor slab. The slab so treated, when finished and cured, shows extreme resistance to water ingress. Being mineral in nature, its breathability and thermal characteristics are similar to the underlying substrate, assuring a long lasting protection against water. **SS - CrystoSeal 1K** can be used in bathroom, wet areas, water tanks, masonry basements, Basement slabs, lift pits and many such applications.

Product Features

- Cement Based, Easy to Apply and Economical
- Breathable, non-toxic
- Resistant to moss and fungus
- Extreme water resistance for Coated Surfaces
- Can be applied to both horizontal and vertical surfaces
- Chloride Free
- Can accommodate substrate movements and minor cracks due to thermal variations
- UV and abrasion resistant

Areas of Application

- Indoor areas such as bathrooms, kitchens, wet areas
- Insides of basements for walls as well as floors
- Dry-shake broadcast application for basement and other floor slabs
- Brickwork, block masonry and plastered surfaces
- Insides of water tanks, swimming pools, STP, canals
- Footings and underground structures
- Lift pits, covered balconies
- As waterproof render on damp masonry

Areas of Application

Specification Keywords	Cementitious crystalline coating, waterproof coating, breathable, capillary blocking, dry-shake waterproofing for slabs, bathroom, tank, wet area, basement, masonry waterproofing
Delivered As	Grey Powder
Storage Instructions	Store in a cool, dry area away from sunlight in original packaging
Shelf Life	12 months
Post Use	Empty packaging completely. Dispose as per local regulations. Refer MSDS for suggestions.
Packing Size	30 kg

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Hazards and Safety

Technical Data

Specific Gravity	1.6 +/- 0.05
Consumption	1.6 kg / sq. m / mm thickness
Mixing ratio	25 to 28% water by weight of powder, to get a brushable slurry
Water Penetration	Nil as per IS 3085
Post Application	Curing is mandatory

Instructions for Use

Prior to use, adequate surface preparation is needed. The substrate should be structurally sound, free from oils, grease, dust or curing compounds, etc. The cracked surfaces should be free from paints and laitance. The substrate should be thoroughly wetted prior to application of **SS – CrystoSeal 1K.** Application is preferably by brush to ensure good penetration into the substrate.

Weigh out the water and **SS – CrystoSeal 1K**. Add the powder to the measured water and not vice-versa as it helps in dispersion of the polymers. Mix Mechanically for 2 to 3 minutes to get a flowable slurry. Water if needed can be added to get the correct consistency.

Apply **SS - CrystoSeal 1K** in two coats on the prepared substrate, brushing the materials thoroughly into the substrate. Wait till the 1st coat is dry (3 to 5 hours) and apply the 2nd coat perpendicular to the 1st coat. For application as a dry-shake material on floor slabs and horizontal areas, broadcast **SS - CrystoSeal 1K** onto the surface of the wet concrete at roughly 1.6 kg / sq. m, using a mechanical spreader, sieve or similar device after concrete is placed, consolidated, and leveled. As new concrete has high moisture content, the crystalline hydration process begins immediately, with accelerated crystal growth due to chemical reaction. The powder is then worked into the surface of the slab during the normal finishing process with a trowel.

In all cases curing by water sprinkling, fogging or use of curing compound is mandatory for 3 to 5 days. Avoid heavy traffic on the coating until the surface is cured for at least 5 days. **SS - CrystoSeal 1K** is not recommended over moving joints and structures subjected to very high movements. Rinse potable water tanks with clean water, prior to putting it in service. The material can be used in combination with reinforcing mesh to get better toughness. It is also available as a 2 component system, **SS - CrystoSeal 2K,** which is recommended for coating applications.

Safety and Precautions

- Mix only small quantities that can be used within 30 minutes.
- Water should not be added to hardened mixture.
- Higher temperatures accelerate the hardening and lower temperature delays it.
- The material requires adequate protection from drying out and needs curing. Contact us for any other special applications.
- Take suitable safety precautions at all times. Always wear protective goggles, safety shoes, masks and gloves.
- If inhaled, move immediately to fresh air. In case of skin or eye contact, flush immediately with water for 15 minutes.
- Remove contaminated clothing and shoes and call a physician.
- Clean up promptly after job is complete. Clean equipment with water and allow to dry in a well-ventilated area. Allow rags etc. to dry in a well-ventilated area out of the reach of children and pets.
- Local, state and federal regulations should be consulted for proper disposal procedures.