

Water Guard Crysta Coat 101 is a cementitious slurry waterproofing system by crystallization. The active chemicals in the applied **Water Guard Crysta Coat 101** reacts with the free lime and moisture present in the capillary track in the concrete to form an insoluble crystalline complex. The crystals block the capillaries and minor shrinkage cracks in the concrete to prevent any further water ingress. **Water Guard Crysta Coat 101** can be used for various concrete elements in structures such as marine and costal structures, rafts, precast panels, water storage tanks, highways, runways, roofs decks, bridges. Cut and cover tunnels, silos, carparks, swimming pools, pipes, lift pits etc. it is an ideal replacement for the old tedious and hazardous method of SBS membrane waterproofing membrane systems of basements.

APPLICATIONS

- ✓ Becomes an integral part of concrete.
- ✓ Suitable for use in contact with potable water.
- ✓ Chemicals remain dormant and are reactivated whenever there is a presence of moisture.
- ✓ Does not require costly surface priming or levelling prior to application as for other coatings.
- ✓ Time saving, fast tracks projects.
- ✓ Can be applied to freshly laid green concrete by dry shake method.
- ✓ Can be applied to negative side of water retaining or underground structures.
- ✓ Forms surface membranes.
- ✓ Economical to apply.

TYPICAL PROPERTIES AT 25°C

Property	Test Method	Value
Component	-	Single
Form	-	Powder
Color	-	Grey
Fresh Wet Density	BS EN 12350-6	1.70 kg / Ltr +/- 0.05
Toxicity	BS 6920 - 1	Non – Toxic
Drying time	ASTM D2939	1 hour
Recoat Time	-	2 – 4 hours
Water permeability	BS EN 12390-8	>90% improvement over control.
Chloride content	BS EN 480-10	Nil to BS EN 934-2

*Typical results under laboratory conditions.

SURFACE PREPARATION

Concrete surface to be treated must be clean and free of laitance, dirt films, paint, coatings, or other foreign matter. The surface must also have an open capillary system for the **Water Guard Crysta Coat 101** treatment. If the surface is too smooth, they must be acid etched using Ressi Acid etch and then further neutralized. The surface can also be Lightly sand blasted, or water blasted if not neutralized properly. Structural defects such as cracks, faulty construction joints and honeycombs should be routed to sound concrete and repaired. It is recommended to use Ressichem patch series of repair mortar for these applications. **Water Guard Crysta Coat 101** is not designed for use in expansion joints or "moving cracks." Horizontal surfaces should preferably have a rough wooden float or broom finish. All surfaces should be saturated with water prior to application.

MIXING

The Water powder ratio of **Water Guard Crysta Coat 101** is between 0.50 to 0.55. This means for a 2 KG bag the water ratio can vary from 1 Ltr to 1.1 Ltr. And for a 20 KG Bag 10 Ltr to 11 Ltr of water can be used. Only potable water is to be used for mixing. Always add powder to water, mix using a slow speed drill fitted with a paddle until a smooth lump free consistency is obtained. Do not rework stiff material by adding more water. Only mix enough material that can be used within 30 minutes.

APPLICATION

Slurry coat: Apply **Water Guard Crysta Coat 101** with a stiff fiber brush. Scrub well into the damp surface, filling all pores and finish with final strokes in one direction. After the first coat has been set but while it is still green, apply a second coat. If this is not possible, prewet the first coat before application of the second coat. Application is recommended on concrete that is at least two to four weeks old.

Dry shake method: For newly poured concrete, use **Water Guard Crysta Coat 101** directly from the bag, distribute the powder evenly over the freshly poured concrete at a spread rate of 4-5 KG / m² before the final trowel finish. It is recommended to distribute approximately 50% at right angles to the first application. Release the powder as close to the wet surface of concrete as possible. Finally trowel the concrete to the required finish. For positive side waterproofing, **Water Guard Crysta Coat 101** can be sprinkled on horizontal formwork. Concrete should be poured directly on the well spread material.

Leaking cracks: **Water Guard Crysta Coat 101** can be mixed to the dry mortar consistency and used to fill the cracks. If there is any active water leakage, then **Water Guard Crysta Coat 101** can be mixed with a suitable plugging material recommended by Ressichem at a Ratio of 1:1 and fixed at the point of water leakage to stop the flow of water. Over such treatment two coats of **Water Guard Crysta Coat 101** can be applied at a said rate of application.

CURING

Applied **Water Guard Crysta Coat 101** should be protected against moisture evaporation by sun and wind. Careful fog / mist spraying of water should be undertaken to keep the surface damp. Alternatively, the surface can be covered with wet hessian or moist sand. Curing compounds are not recommended.

Moisture cure **Water Guard Crysta Coat 101** treated surfaces 2 to 4 times a day for a period of 12-15 Days. Backfill material can be placed on **Water Guard Crysta Coat 101** applications after moisture curing has been completed. No protection boards required.

LIMITATIONS

Water Guard Crysta Coat 101 should not be applied on dry surfaces.

PACK SIZE

Water Guard Crysta Coat 101 is available in 2KG and 20 KG Packs.

HEALTH AND SAFETY

Gloves, masks, and suitable protective equipment must be worn during application. Contact with skin, eyes etc. must be avoided. **Water Guard Crysta Coat 101** is regarded as nonhazardous for transportation. Do not reuse bags and containers and dispose them off as per local rules and regulations. For further health and safety information, please refer to product MSDS.