

**Description**

**GS 101<sup>®</sup>** is a brush or spray applied coating method for waterproofing and protection of concrete. The material used is cement based, **calcium chloride-free** supplied in powder form and formulated from Portland cement, fine quartz sand and active chemicals. The chemicals require the presence of water in the capillaries in order to penetrate and form **sealing crystals**.

Although surface applied, this method is not just a painted membrane. The special active chemicals penetrate and become **integral with the concrete** and is not merely a coating which can be easily damaged.

The slurry applied to inside or outside surfaces will provide total protection to the concrete. Should the wall develop shrinkage cracks, the unique qualities of this material react with the moisture to seal off the leakage even against high water pressure.

**Usage**

• **Basement (both external and internal wall)**

This slurry can be applied to either internal or external wall surface to provide total protection to concrete. Usually, it is applied externally to waterproof the basement structure. When the external wall is not accessible, it can be applied to internal wall. Should the wall develop any shrinkage cracks, the unique features of **crystallization material** react with moisture to seal off the leakage even against high water pressure. Our crystallization principle can work under both positive and negative water pressure.

• **Swimming Pools**

This method has been successfully used for in-ground or suspended pools. Its penetration property enables crystals to be formed inside the concrete and become integral part of the structure. Thus provides total protection to the pool surface that is subjected to water and chemical absorption which can attack reinforcing steel. Applying this method for pool structure will assure the performance since our crystallization material works better the older it becomes because it works with moisture.

• **Water Tanks & Reservoirs, Waste Plants, Terrace slabs etc**

**Curing**

It is suggested to cure the applied surface using spray method for a minimum of 3 days.

**Characteristics**

Tests	Test Results	Standard
Tensile Adhesion Bond Strength Test ( 28 d), N/mm <sup>2</sup>	0.34	ASTM D 4541 - 1993
Flexural Strength (28 d), N/mm <sup>2</sup>	5.05	ASTM C 348 - 86
Tensile Strength (28 d), N/mm <sup>2</sup>	2.42	ASTM C 190 - 85
Compressive Strength (28 d), N/mm <sup>2</sup>	57.5	ASTM C 109
Coefficient of Permeability, k (m/sec) at 10 bar after 14 days	4.24 x 10 <sup>-12</sup>	Cell Method

**Advantages**

\*It is not just a painted membrane. The special active chemicals penetrate and become integral with the concrete and do not form merely a coating that can be damaged. No special protective system is necessary.

\*This application **permanently** prevents dampness, moisture, seepage, in tropical, temperate and arctic condition.

\*It can be applied onto the damp surface.

\*It will not allow the passage of water molecules. It will however allow the passage of air. The concrete is therefore able to breathe and dry completely.

\*It is washable, odourless, non-toxic, fungicidal, insecticidal, germicidal, anti-static and UV resistant.

\*It can be applied on the negative side and on exterior and interior surfaces.

\*It resists extreme hydrostatic pressure. Will not puncture, tear or come apart at the seams.

\*It can seal hairline cracks up to 0.25 mm

\*It prevents reinforcing steel from rust accelerating electrolytes.

\* It is highly resistant to aggressive chemicals.

\* It does not require protection during backfilling.

\* It is breathable, it blocks water in the liquid form, but allows water vapor to escape, so concrete can completely dry.