

Crystalline capillary waterproofing system for cementitious substrates

Uses

Brushbond TGP* crystalline waterproofing system is used for waterproofing against the positive or negative sides of hydrostatic heads of water, for dampproofing, repairing cracks, plugging holes, sealing wall - floor joints and stopping active leaks in a wide variety of conditions including :

- Sewage treatment and water treatment plants, tanks, foundations, tunnels and manholes.
- Terrace garden, balconies, sunshades etc.
- Roof and Sunken slabs
- Industrial and office buildings
- Reservoirs, water holding structures etc.

Advantages

- Meets the requirements as per ANSI/NSF Std 61 for suitability to potable water
- Penetrates concrete, seals capillary tracts
- Contains no chloride
- Easy to apply
- Resists chemical attack of sewage and industrial wastes
- Suitable for external and internal applications.

Description

Brushbond TGP* crystalline capillary waterproofing system contains proprietary blend of portland cement, quartz aggregate and special chemicals. In the presence of moisture, the active chemicals in Brushbond TGP* crystalline waterproofing system penetrates 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 (upto 0.25mm wide) caused by shrinkage or expansion. Unlike metallic and membrane types of waterproofing which only form a surface barrier, Brushbond TGP* crystalline waterproofing system, in the presence of water, continues producing crystals and lasting imperviousness to water.

Technical support

The company provides a technical advisory service supported by a team of specialists in the field.

Properties

Specific gravity	: 1.6 to 2.0 g/cc
Pot life	: 40 minutes

Instructions for use

Surface preparation

Old concrete

Surfaces must be clean and sound. Remove all oil, dirt, laitance and other contaminants by water blasting.

Water blasting is preferred for surface preparation because it mechanically cleans and roughens the surface, is environmentally safer and leaves the surface saturated with water. Surface must be damp for application of Brushbond TGP* crystalline waterproofing system, concentrate.

New concrete

After forms are stripped, acid etch or sand blast / water blast to facilitate penetration of crystals formed during the chemical reaction. Surface must be left damp for application on Brushbond TGP* crystalline waterproofing system.

Construction joints, cold joints and non-leaking joints greater than 0.25mm wide must be cut in V-groove shape and filled with Brushbond TGP* crystalline waterproofing system in mortar consistency.

Mixing

For best results, clean, potable water should be added to Brushbond TGP* crystalline waterproofing system concentrate.

Application

Existing concrete

3 parts of powder shall be added to 1 part of clean and mixed thoroughly with a slow speed drill equipped with a paddle. For larger batches, mixing shall be done with a mortar mixer. Do not mix more material than can be used in 20 minutes @ 27°C, 50% R.H. If mixture thickens, it shall be restirred to reduce consistency. Extra water should not be added.

Curing and Protecting

Brushbond TGP* crystalline waterproofing system application must be kept moist for a minimum of 48 hours. After initial set, moist curing, using continuous water spray is recommended. Treated surfaces shall be fog sprayed 3 to 4 times daily for the 48 hour period. For warmer climates, more frequent spraying may be required. It is important to keep the Brushbond TGP* crystalline waterproofing system moist to allow the crystal formation to occur. The surfaces shall be protected from foot traffic for 48 hours or heavy traffic for 7 days. Freshly applied Brushbond TGP* crystalline waterproofing system must be

Brushbond TGP

(Formerly known as Tegraproof C)

protected from extreme weather conditions such as rain, strong winds, high temperatures and freezing for a period of not less than 48 hours after application. A minimum of 7 days of air curing shall be allowed prior to immersing the surface in water.

Clean up

Prior to curing, Brushbond TGP* crystalline waterproofing system concentrate may be cleaned from tools and other surfaces with water.

Limitations

Brushbond TGP should not be used when the temperature is 5°C and falling. Full activation and effectiveness of Brushbond TGP may require 2-3 weeks following application.

Estimating

Supply

Brushbond TGP : 15 kg bags

Coverage

Brushbond TGP : 1.0 to 2.0 kg/m² per application (brush)

The coverage of Crystalline waterproofing system is recommended depending upon the type of structure and application. Generally, it is applied in 2 coats for effective performance of the system.

Storage

Brushbond TGP* crystalline waterproofing system concentrate should be stored in protected, dry areas. When left in original unopened package, Brushbond TGP* crystalline waterproofing system will maintain its design performance characteristics for 1 year.

Precautions

Health & Safety Instructions

Brushbond TGP* crystalline waterproofing system contain chemicals that may cause irritation to the eyes and skin. Goggles, rubber gloves and long sleeves should be worn when working with these products. Read warnings noted on product package and refer to product material safety datasheet prior to use.



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