



POLYCOTE CWP

Crystalline capillary waterproofing system for cementitious substrates

Description

POLYCOTE CWP crystalline capillary waterproofing system contains properly blend of Portland cement, quartz aggregate and special chemicals. In the presence of moisture, the active chemicals in POLYCOTE CWP 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 nonstructural cracks caused by shrinkage or expansion. Unlike metallic and membrane types of waterproofing which only form a surface barrier, POLYCOTE CWP crystalline waterproofing system, in the presence of water, continues producing crystals and lasting imperviousness to water.

Advantages

- Meets the requirements as per ANSI/NSF Std61 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

Uses

- POLYCOTE CWP 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:
- Sewage treatment and water treatment plants, tanks, foundations, tunnels and manholes.
- Balconies, sunshades etc.
- Industrial and office buildings
- Reservoirs, water holding structures etc.

Compliance standard

- IS 2250:1981, DIN 1048, ACI-212-3R-2010

Technical Information

PROPERTIES	RESULTS
Appearance	Grey Powder
Bulk Density in g/cm ³	1.10
Pot Life	30 to 60 min
Dry film thickness	min 0.7 mm - 1.5 mm
Compressive Strength	18 N/mm ² @ 7 days 25 N/mm ² @ 28days
Flexural Strength	6 N/mm ² @ 28days
Adhesion Strength	1 N/mm ²
Water Impermeability	Min. 13bar (-ve/+ve side)

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 POLYCOTE CWP crystalline waterproofing system, concentrate.

- **New concrete**

After forms are stripped, acid etch or water blast as above to remove form oils and laitance. Surface must be left damp for application on POLYCOTE CWP crystalline waterproofing system. Construction joints, cold joints and non-leaking joints greater than 0.4 to 20 mm wide must be cut in V-groove shape and filled with POLYCOTE CWP crystalline waterproofing system in mortar consistency and then laminate groove with POLYCOTE CWP.

Mixing

- For best results, clean, potable water should be added to POLYCOTE CWP 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 that can be used in 20 minutes @24°C, 50% R.H. If mixture thickens, it shall be re stirred to reduce consistency. Extra water should not be added. Application temperature should be in between 5°C to 35°C.

Curing and Protecting

- POLYCOTE CWP 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 POLYCOTE CWP 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 POLYCOTE CWP crystalline waterproofing system must be 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, POLYCOTE CWP crystalline waterproofing system concentrate may be cleaned from tools and other surfaces with water.

Packaging

- It is supplied in 20 kg bag.

Storage

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

Limitations

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

Coverage

- 10 ft²/2kg POLYCOTE CWP @ 1 mm thickness application (Brush)
(Actual coverage rates will depend upon the profile and porosity of the substrate)