



Dehumidification systems, water repellent treatments, thermal and acoustic insulation, waterproofing



Certified Quality System since **FEBRUARY 1993**

From Project to Jobsite

CRYS-teco® PWD

CEMENT BASED FORMULA FOR THE WATERPROOFING OF MASONRY AND CONCRETE BY CRYSTALLISATION TECHNOLOGY

CE approved – Certificato n. 1305 - CPD - 0808
EN 1504-2 prospetto ZA.1d

Description CRYSteco® is a cementitious, brush-applied, based on hydraulic reactive binders treatment for concrete. CRYSteco® is applied to the concrete and will waterproof the structure by chemical reaction within the concrete mass forming billions of micro-crystals which block the pores, voids and micro-cracks. Pre-saturation and subsequent re-wetting of the surface will cause deeper diffusion of the active ingredients and formation of crystals at greater depth.

Advantages

- Stops water movement through concrete.
- Provides a permanent treatment.
- Protects reinforcing steel against corrosion.
- Waterproofs minor size cracks.
- Waterproofing increases vs time.
- Reaches the inside surfaces and therefore its effect is not influenced by surface wear or abrasion.
- Treated concrete withstands significant hydrostatic pressure (negative or positive).
- Treatment may be applied to internal or external concrete surfaces.
- Treatment may be applied to old or new concrete.
- Not - harmful and suitable for use in drinking water reservoirs.

Indicated use As waterproof coating for constructions such as concrete foundations and walls, concrete slabs on grade, elevated slabs and ramps, piezometric towers, bridge decks, marine structures.

Method of use

- Prepare the substrate so that the adhesion shall be optimal. Remove the deteriorated or contaminated parts; remove eventual rust on the reinforcement, preferably by sandblasting. The concrete support must be sufficiently resistant and sound.
- Wash the prepared area with high pressure water blasting.
- Prepare structure when damaged with BS 38 MuCis® fibrorinforzato.
- In case of water pressure infiltrations, the cracks or joints shall be sealed first with TECNOSTOP.
- Wet the substrate till full saturation of the porosity. The excess water, in cavities or on the surface, must be removed by sponge prior to the application of CRYSteco® PWD.
- Add the powder to the water and mix for 3 minutes till a lump free and homogenous mix is obtained. The average water demand for a fluid consistency is from 28% to 34% (7,0 lt ÷ 8,5 lt for one bag of 25 Kg). Mix the applying quantities in 20 minutes.
- Apply a first layer of CRYSteco® PWD using a stiff brush, or by trowel, taking care to fill the substrates porosity and eventual cracks. Apply a layer of 1 mm.
- After the first layer has cured, apply a second layer. If the first one is completely dry, pre-wetting will benefit the performance of the system.
- Completed applications should be moist cured for 48 hours and protected from rain and light traffic for 48 hours. Heavy traffic should be avoided until the surface has hardened. Treated concrete surfaces should not be permanently exposed to liquids for 7 days

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Curing In warm or windy conditions, it is advisable to mist-spray the applied product with clean water after the initial set has taken place. In cold, humid or unventilated areas a longer curing period is to be foreseen or introduce forced ventilation to avoid condensation. Never use dehumidifiers during the curing period or within 28 days of completion of the work. Completed applications should be moist cured for 48 hours and protected from rain and light traffic for 12 hours. Heavy traffic should be avoided until the surface has hardened. Treated concrete surfaces should not be permanently exposed to liquids for 7 days.

Dust sprinkling application CRYSteco® PWD can be also used as dust-sprinkling foundation slab water proofer; in this case the product should be applied on lean fresh concrete immediately before pouring the foundation slab and also on the foundation slab immediately after pouring the concrete.

Consumption Slurry grout: 0,75 Kg/m² per hand
Dust sprinkling : 1÷2 Kg/m² before and after the casting

Remarks Information according to 2003/53/CE:
Storage: 12 months in original, closed packaging stored in dry and protect area with temperatures between +5 °C and +35 °C.
Do not use product in opened bags or if lumps occur.

Packaging 25 Kg bag

Technical characteristics (typical values)	• Appearance	Grey powder
	• Density	1,9 Kg/lit
	• Hardening time at 20 °C	20 minutes
	• Temperatures of application	min. 3 °C , max. 30 °C
	• Compressive strength EN 12190	>20 MPa
	• Flexural strength EN 12190	4,5 MPa
	• Adhesion to concrete EN 1542	≥ 1,5 N/mm ²
	• Water permeability EN 12390/8 (5 bar x 3 days) sample 15x15 cm	penetration < 10 mm
	• Resistance to positive pressure	> 5 bar > 50 meters water column
	• Resistance to negative pressure	> 2,5 bar > 25 meters water column
	• Yield	1,9 Kg/m ² /mm

Safety indications Read carefully the safety indications on the packaging and consult the relevant Material Safety Data Sheet of this product.

The above information is based on our best experiences and lab results and on results of the application of the product in various fields. Tecnochem Italiana is not responsible for negative performances due to not proper use of the product or for defects due to elements not connected with the quality of the product included wrong storage. Technical characteristic in this technical data sheet are up-to-dated periodically .Revision date of this technical data sheet is indicated below. Changes of this data sheet can be found in our web-site www.tecnochem.it where you can find the same technical data sheet updated in real time.

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