

TECHNICAL DATA SHEET

Surface Applied Waterproofing



Krystol T1[®] Waterproofing System

Product Code: K-210

DESCRIPTION

Krystol T1[®] is a surface-applied crystalline waterproofing treatment for concrete structures used to protect against the ingress of water. Krystol T1[®] contains Kryton's unique and proven Krystol[®] technology which reacts with un-hydrated cement particles and moisture to form millions of needle-shaped crystals deep into the concrete mass. Over a period of weeks, these crystals grow, filling the naturally occurring pores and voids in concrete, and permanently blocking the pathways for water and waterborne contaminants. Later, if cracks form due to settling or shrinkage, incoming water triggers the crystallization process and additional crystals begin to grow, filling cracks and ensuring that the structure's waterproofing barrier is maintained and protected. The concrete itself becomes the waterproof layer removing the need for any surface treatment.

FEATURES & BENEFITS

- Replaces unreliable exterior membranes, liners and coatings
- Reaches well below the surface and is not affected by surface wear or abrasion
- Self-seals hairline cracks up to 0.5 mm (0.02 in.) - best in industry
- Reactivates in the presence of moisture
- Treatment may be applied to old or new concrete
- Safe for contact with potable water
- Permanently waterproofs the concrete
- Increases reliability and quality control
- Lowers the cost of waterproofing
- Increased durability reduces building maintenance and repair costs
- Impervious to physical damage and deterioration
- Protects against corrosion
- Superior performance
- CE certified, Structural Repair Products (R3 Category) – EN 1504-3

RECOMMENDED USES

- Concrete foundations, walls and slabs on grade
- Marine structures
- Elevator pits and equipment pits
- Parking structures
- Swimming pools and water retaining structures
- Water tanks and reservoirs
- Tunnels, pipes and underground vaults
- Bridge decks, elevated slabs and ramps
- Rooftops, roof decks and podiums
- Sewage treatment plant and effluent treatment plant

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PROPERTIES

Physical Properties	
Appearance	Gray powder
Bulk density g/cm ³ (lb. /cu. ft.)	1.36
pH (when mixed with water)	12
Plastic Properties	
Working Time (20°C/ 68°F, 50% RH)	60 minutes with continued stirring (slurry) 30 minutes (dry-pack)
Hardening Time (20°C/ 68°F, 50% RH)	5 hours (slurry) 3 hours (dry-pack)

APPLICATION

- **Surface Preparation**

Surface must be clean and have an 'open capillary surface'. Remove laitance, dirt, grease etc. by means of high pressure water jetting, wet sandblasting or use of hard bristle brush. Concrete slab with crack, construction joints, honey combing etc. must be treated with Kryton products before pre-watering the surface. Krystol T1® slurry to be applied on damp surface with no excess water.

Mix Krystol T1 to a thick but spreadable consistency (approximately 5 parts powder to 2 part clean water by volume). Apply evenly to properly prepared concrete that is in a saturated-surface-dry (SSD) condition using a sprayer, brush or broom evenly over the concrete. Krystol T1 sets hard in 6 to 24 hours depending on conditions. Protect from frost, rain, traffic and rapid drying for 24 hours. Wet cure for at least 3 days.

- **Horizontal Surface**

Mix Krystol T1® to a slurry consistency (5 parts powder to 2 parts clean water). Apply with a natural bristle concrete brush using an aggressive circular motion to coat the concrete with Krystol T1® mix at a rate of 1.0 kg/m².

- **Vertical Surface**

Mix Krystol T1® to a slurry consistency (5 parts powder to 2 parts clean water). Apply with a natural bristle concrete brush using an aggressive circular motion to coat the concrete with the Krystol T1® mix at a rate of 1.2-1.6 kg/m² depending up on the project-site conditions. Please consult a KRYTON Representative to determine the appropriate dosage rate for specific project requirement.

Krystol T2® is a specialized negative-side application material. Depending upon project conditions, and in consultation with KRYTON representative, double coating consisting both of Krystol T1® & Krystol T2® may be recommended for vertical surface applications. In that case, mix Krystol T1® to a slurry consistency (5 parts powder to 2 parts clean water). Apply as a first coat over prepared surface with a natural bristle concrete brush using an aggressive circular motion to coat the concrete with the Krystol T1® mix at a coverage of 0.8 kg/m² and apply Krystol T2® slurry (5 parts powder to 2 parts clean water) as a second coat over Krystol T1® at the rate 0.8 kg/m² with a natural bristle concrete brush.

Note: Application should not be made when the surface temperature is below 5°C. Keep the treated surface moist for period of at least 5 days after application & must be protected against direct sun, wind or frost.

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SAFETY

For professional use only. This product becomes extremely caustic when mixed with water or perspiration. Avoid contact with skin or eyes. Avoid breathing dust. Wear long sleeves, safety goggles and impervious gloves.

PACKAGING

Krytol T1 is available in 25 kg reusable pails.

SHELF LIFE

When stored under standard conditions and minimum temperature of 7°C, Krytol T1 has a shelf life of at least 3 years for unopened pails.

WARRANTY

Kryton Buildmat Co. Pvt. Ltd. warrants that Kryton products are free from manufacturing defects and comply with the specifications given in their respective technical data sheet. Because conditions of use, such as site conditions, surface preparations, workmanship, concrete ingredients, weather, structural issues and other factors are beyond the control of Kryton, no warranty can be given as to the results of use. Purchaser agrees to seek the advice of qualified professionals and to determine for themselves the suitability of the products for their intended purpose and assumes all risks. Purchaser's sole remedy is limited to replacement of any product proven defective or at Kryton's option refund of the purchase price paid. THIS LIMITED WARRANTY CONTAINS THE ENTIRE OBLIGATION OF KRYTON. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. KRYTON SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. No representative of Kryton has the authority to make any representations or provision except as stated herein. Kryton reserves the right to change the properties of its products without notice.