

# TECHNICAL DATA SHEET

Surface-Applied Cementitious Waterproofing for Concrete

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BE SURE. BE KRYTON.

## Krystol T1® Waterproofing System

### DESCRIPTION

Krystol T1® is a surface-applied crystalline waterproofing treatment for concrete structure that is used to protect the structure against the ingress of water. It is a dry powder, which when mixed with water becomes a coating that is applied to the inner or outer side of a concrete structure. Krystol T1® may also be applied as a dry-shake to freshly poured concrete.

Krystol T1® contains Kryton's unique and proven Krystol® Technology which reacts with un-hydrated cement particles to grow millions of needle-like crystals deep into the concrete mass. Over a period of weeks and months, 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

- 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.)
- Reactivates in the presence of moisture
- Waterproofs from any side (i.e. positive or negative side)
- Treatment may be applied to old or new concrete
- Safe for contact with potable water certified by NSF to NSF/ANSI Standard Drinking Water System Components - Health Effects



### KEY BENEFITS

- Lowers the cost of waterproofing
- Permanently waterproofs the concrete
- Increases reliability and quality control
- Increases durability, decreases building maintenance and repair costs
- Protects against corrosion
- Superior performance



Kryton Buildmat Co. Pvt. Ltd.

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## RECOMMENDED USES

- For concrete foundations, walls and slabs on grade
- Elevator pits and equipment pits
- Parking structures
- Swimming pools and water features
- Water towers, reservoirs and storage tanks
- Tunnels, pipes and underground vaults
- Water treatment reservoirs bridge decks, elevated slabs and ramps
- Rooftops and roof decks

## PHYSICAL PROPERTIES

Appearance	Gray powder
Bulk Density g/cm <sup>3</sup>	1.25
pH (when mixed with water)	13

## PLASTIC PROPERTIES

Working Time (20°C/ 50% RH)	60 minutes with continued stirring (slurry) 30 minutes (dry-pack)
Hardening Time (20°C/ 50% RH)	5 hours (slurry) 3 hours (dry-pack)

## HARDENED PROPERTIES

Hydrostatic head resistance	140 m (460 ft.)
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### APPLICATION

Application should not be made when the surface temperature is below 5°C (41°F). When applying Krystol T1® as dry-shake broadcast to freshly-poured horizontal slabs, spread Krystol T1® on the fresh concrete before final trowelling and finishing at a coverage of 1.0 kg/m<sup>2</sup> (1.8 lb./sq.yd.). When applying Krystol T1® as a slurry-based coating on concrete, mix Krystol T1® to a slurry consistency (5 parts powder to 2 part clean water) and with a natural bristle concrete brush, use an aggressive circular motion to coat the concrete with the Krystol T1® mix at a coverage of 0.8 Kg/m<sup>2</sup> when used with Krystol T2® (per coat) or 1.0 Kg/m<sup>2</sup> when used as a single coat.

Please contact a Kryton representative for details. Completed application should be protected against direct exposure to sun for 48 hours and against rain and light traffic for 12 hours. Heavy traffic should be avoided until the surface has hardened (at least 5 days). The treated concrete surface should not be permanently exposed to liquids for 7 days. Finishes containing Portland Cement may be applied over Krystol T1® after 3 hours but other finishes should not be applied before 28 days. For using Krystol T1® as part of a crack repair system, please refer to Kryton's Krystol Crack Repair System. For using Krystol T1® as part of a construction joint system, please refer to Kryton's Construction Joint System.

### LIMITATIONS

Krystol T1® is an effective waterproofing system for rigid concrete structures only and may not reliably seal cracks and joints that experience constant or repeated movement. However is effective on surface with minor movement as experienced on balconies and terraces that take normal load. Consult a Kryton representative for project specific recommendations. Krystol T1® is not a decorative coating.

### 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

- 25 kg resalable pail
- 20 kg bags

### SHELF LIFE

Krystol T1® has a shelf life of 2 years for unopened pails and 4 weeks for properly resealed pails.

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## WARRANTY

Kryton Buildmat Co. Pvt. Ltd. (A Unit of Kryton, Canada) warrants that its products are free from manufacturer's defects and, when applied in accordance with the current specifications and application instructions will perform as stated in its product literature. Because methods and conditions of use are beyond the control of Kryton, no guarantee, expressed or implied can be given as to the results of application. Liability of Kryton shall be limited to replacement of materials proved defective or, at its option, refund of the purchase price of the product.

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