

# TECHNICAL DATA SHEET

## CONSTRUCTION JOINTS & DETAILS



# Krystol Waterstop Grout™

Product Code: K-322x

## DESCRIPTION

Krystol Waterstop Grout is a primary component of the Krystol® Waterstop System and is used to permanently waterproof concrete construction joints, pipe penetrations, tie holes and control joints. Krystol Waterstop Grout is specially formulated with Kryton's proven Krystol technology and contains fiber and shrinkage controlling additives that limit cracking. The active Krystol ingredients in Krystol Waterstop Grout combine chemically with water and unhydrated cement to form millions of needle-shaped crystals that grow in all directions to fill any capillary pores, cracks and joints that might otherwise allow water to pass. Krystol Waterstop Grout is typically used in conjunction with Krystol Waterstop Treatment™ as part of the Krystol Waterstop System.



## FEATURES & BENEFITS

- Multi use –internal or external waterstop
- Permanent crystalline waterproofing and protection
- Crack Resistant
- NSF 61 certified; safe for contact with potable water,
- Durable; resistant to rain, foot traffic and shifting
- Allows for flexible scheduling; Concrete can be placed / keyways can be filled days or weeks after installation

## RECOMMENDED USES

Use with Krystol Waterstop Treatment as part of the Krystol Waterstop System as either an internal or external waterstop at all static concrete-to-concrete joints, and as an external waterstop at all pipe penetrations, tie holes and control joints where water penetration is a concern.

## PROPERTIES

<u>Physical Properties</u>	
Appearance	Gray powder
Bulk density	1.3 g/cm <sup>3</sup> (81lb. /cu. ft.)
pH (when mixed with water)	12
<u>Plastic Properties</u>	
Working time (20°C, 50% RH)	30 minutes
Hardening time (20°C, 50% RH)	1 hour
<u>Hardened Properties</u>	
Hydrostatic head pressure resistance	140 m (460 ft.)
Compressive strength (ASTM C109)	24 MPa (3480 psi) @ 24 hrs 30 MPa (4351 psi) @ 7 days 35 MPa (5076 psi) @ 28 days 40 MPa (6700 psi) @ 56 days
Pull off Strength (ASTM C1583)	400 psi

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## APPLICATION

Refer to Application Instruction 4.11 - Waterproofing Horizontal Construction Joints - Internal Grout Method, 4.12 - Waterproofing Horizontal & Vertical Construction Joints - External Grout Method, 4.14 - Waterproofing Horizontal & Vertical Control Joints, 4.16 - Waterproofing Horizontal & Vertical Construction Joints - Triple Protection Method, 4.17 - Waterproofing Tie Holes & Pipe Penetrations, or 4.21 - Waterproofing Horizontal & Vertical Construction Joints for Shotcrete - External Grout Method before using this product. Consult a Kryton Representative for help with selecting the appropriate joint detail.

Mix approximately 4.5 parts of Krytol Waterstop Grout to 1 part clean water (by volume) to a non sag putty consistency.

Internal method: Apply the mixed grout to the center of the construction joint using Kryton's triangle shaping trowel. Form a continuous and seamless triangular shaped strip that measures 50 mm (2 in.) wide by at least 30 mm (1.25 in.) high.

External Method: Tightly pack mixed grout to pre formed, clean concrete keyway or tie hole while in a Saturated, Surface Dry (SSD) condition.

Protect the grout application from damage by rain, rapid drying or freezing for at least 24 hours.

## LIMITATIONS

Krytol Waterstop Grout is effective for rigid structures only and may not reliably seal joints that experience variable loading or repeated movement. Consult a Kryton representative for project specific recommendations.

## SAFETY

Read the Safety Data Sheet (SDS) for this product. For professional use only. This product becomes 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 Waterstop Grout is available in 5 kg (11 lb.) and 25 kg (55 lb.) resealable pails.

## SHELF LIFE

Krytol Waterstop Grout has a minimum shelf life of 24 months for unopened pails, and 4 months for properly resealed pails.

## WARRANTY

Kryton International Inc. (Kryton) 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.