# **APPLICATION INSTRUCTION**

4.31



**Construction Joints & Details** 

# Krystol<sup>®</sup> Waterstop System

Waterproofing Suspended Slab Joints

## DESCRIPTION

The following application instructions are used in suspended (elevated) concrete slabs,

containing Krystol Internal Membrane<sup>™</sup> (KIM®) admixture, using a flexible joint sealant in crack control joints which are prone to continuous movement as a result of ongoing changes in loading and temperature.

#### **Drawings and Specifications:**

For section drawings, CAD details and specification language related to this product, visit <u>www.kryton.com/technical-info/</u> or contact your authorized Kryton representative.

## LIMITATIONS

Krystol Waterstop System 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. Use typical cold weather practices if applying in cold climatic conditions. Installation during heavy rain must be avoided.

- Maximum anticipated movement at the joint must not exceed 6 mm (0.25 in.).
- This joint design is not intended to resist hydrostatic pressure.
- Do not use this joint design for slabs on ground or for water containment structures.
- This joint design is applicable to horizontal installations only.
- This joint design is not applicable to composite metal decking installations.

# SAFETY PRECAUTIONS

Read and follow the Safety Data Sheets (SDS) for these products (available at www.Kryton.com). For professional use only. These products become highly caustic when mixed with water or perspiration. Avoid contact with skin or eyes. Avoid breathing dust. Wear long sleeves, safety goggles and impervious gloves.

# **STEP 1: CREATE A CHASE**

The location of the construction joint must be chosen by the structural engineer and proper crack inducement must be provided. Create a chase in the top surface of the concrete slab at the intended crack control joint location using one of the following methods (see figure):

- 1. Insert a form of the appropriate dimensions into the concrete surface at the time of concrete placement. The form may be slightly tapered to ease removal. Do not use any form release compounds. After the concrete has hardened, remove the form to reveal the recessed chase. Create crack inducement by installing a saw-cut to the centerline of the chase, or
- 2. Saw cut control joints as usual. At any time prior to 28 days, create the chase by making two saw cuts, one on either side of the control joint, 20 mm (0.75 in.) deep and 40 mm (1.5 in) apart. Remove the concrete between using a powered chisel to attain a smooth bottom.
- 3. Concrete must be at least 28 days old before proceeding to step 2.



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#### **STEP 2: APPLY SEALANT**

- 1. The interior of the chase must be dry, sound, clean and free of any contaminants. If necessary, prepare the chase by abrading and cleaning. Priming may be necessary; follow sealant manufacturer's instructions.
- 2. Place a bond-breaking tape onto the bottom surface of the chase. This is necessary in order to avoid adhesion of the flexible joint sealant to the bottom surface. This will promote proper elongation of the sealant during contraction of the concrete. Special tape is not required; common masking tape will work.

TIP: Apply tape also to the surface of the concrete, on either side of the joint to protect the concrete from spills and drips.

- 3. Apply a flexible multi-component polyurethane sealant meeting the requirements of ASTM C920 and U.S. Fed. Spec. TT-S-00227E (such as Tremco THC-900 or Sikaflex 2c). Mix and apply the joint sealant material in accordance with the manufacturer's written instructions.
- 4. Protect the application from immersion in water for 3 days or as directed by the sealant manufacturer.

#### TOOLS

- Sealant
- Masking tape or other bond-breaking tape
- Chase preparation materials (depending on method)
  - o Keyway form
  - o Concrete saw
  - o Power chisel