

Jointing for KIM Shotcrete Walls

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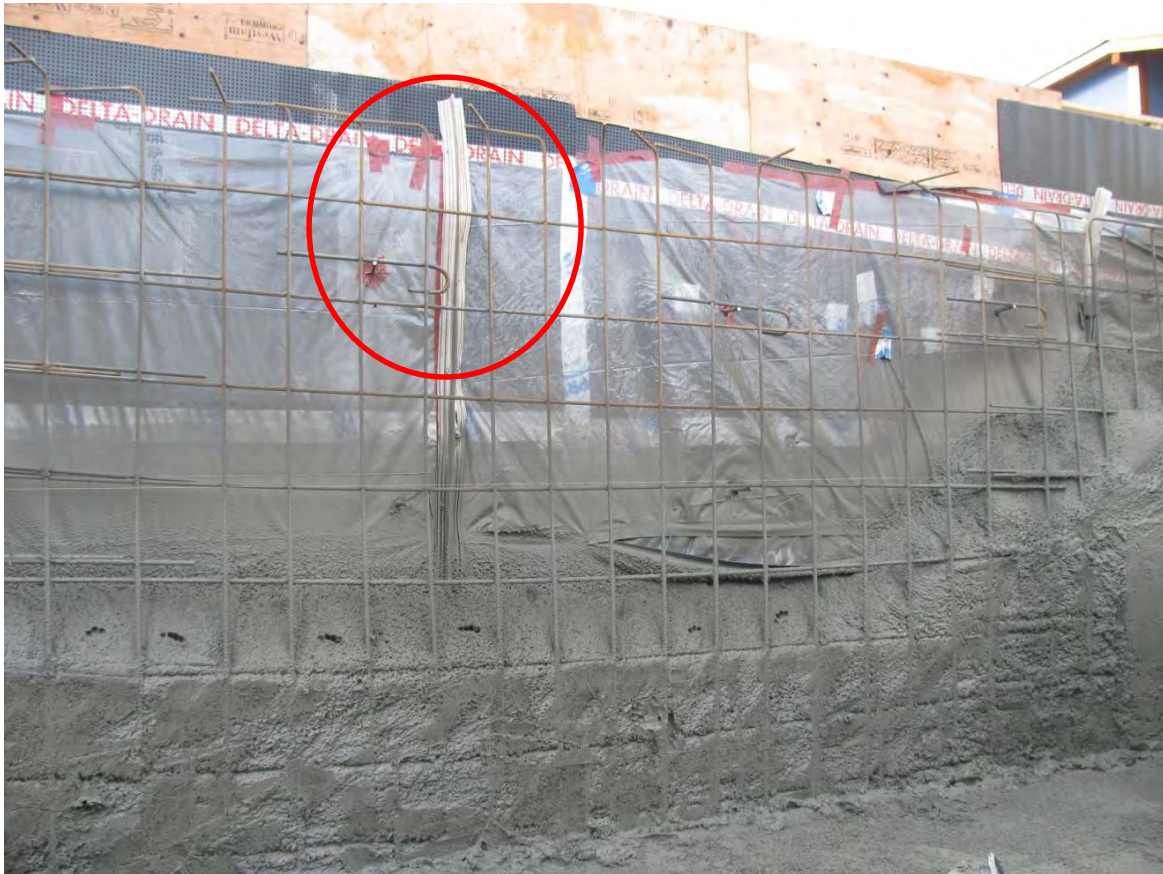
For project specific details please contact:
info@kryton.com | 1.800.267.8280



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This document provides a visual supplement to Kryton Application Instruction 4.14 (Control Joints) and 4.21 (Construction Joints – Shotcrete).

1. Control Joints for Shotcrete Perimeter Walls (Application Instruction 4.14)



Control Joints - Installation Notes:

1. Ensure crack inducing PVC waterstop is fully pinned in place; do not allow PVC to fold or twist near the top.
2. Ensure PVC waterstop is fully pinned in place with no large bulges (see below)
3. Maximum control joint spacing is 20 times the wall section thickness.
4. If project drawings call for every second horizontal rebar to be cut at the control joints, cut rebar in line with the PVC center bulb.
5. PVC center bulb.
6. Place shotcrete as normal following ACI 506R – Guide to Shotcrete

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Control Joints - Installation Notes:



Secure PVC to prevent bulges

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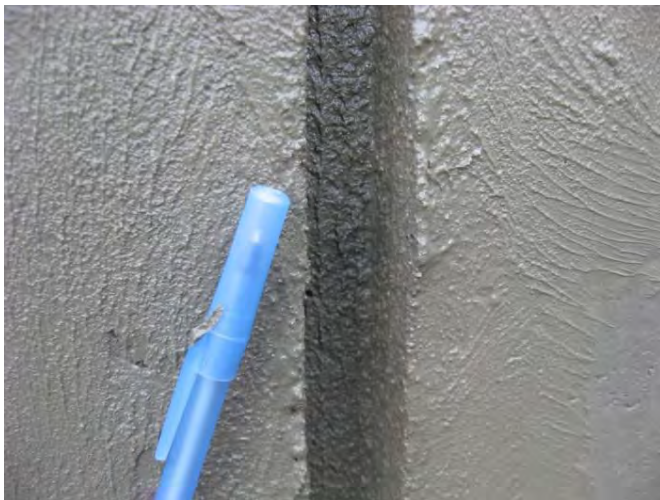
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Control Joints – Forming the Keyway for Krytol Waterstop Grout

Control Joint – Typical Keyway



Press keyways into the shotcrete while still plastic



Typical joint keyway



Joint keyway with crack

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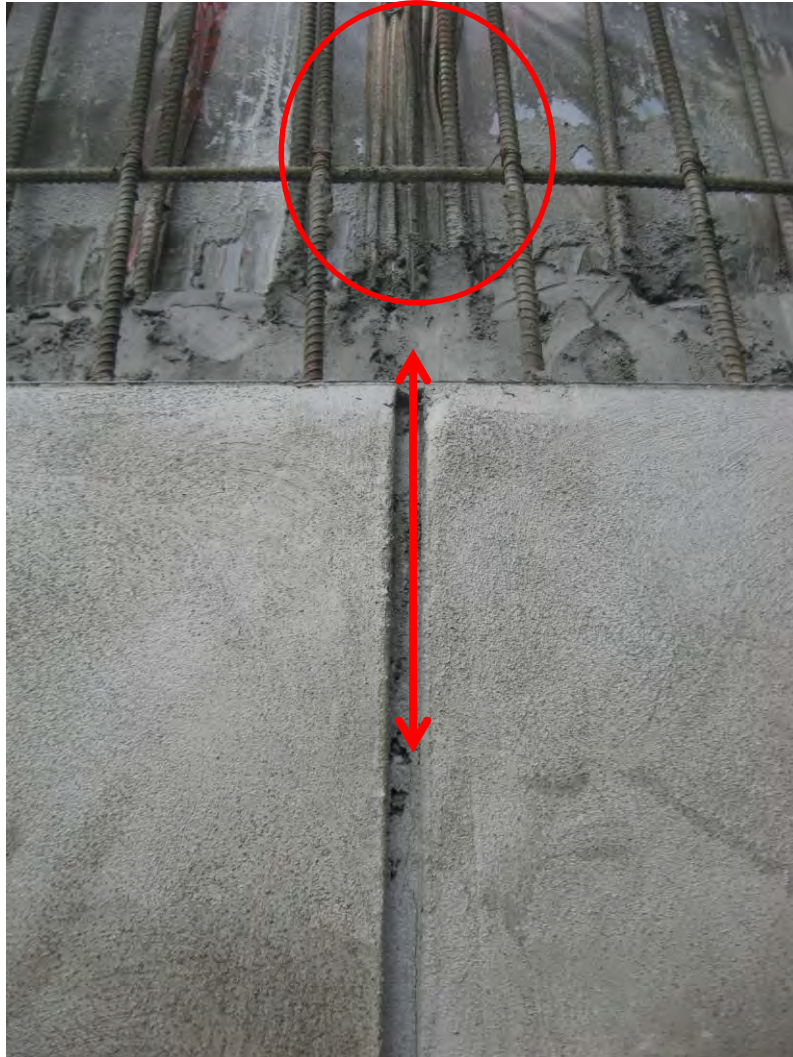
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Control Joints – Forming the Keyway for Krystol Waterstop Grout

Typical Control Joint Keyway



Ensure that the keyway and PVC center bulb are in-line

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2. Construction Joints – Top of Walls (Application Instruction 4.21)



This detail requires structural approval.

1. Shoot the wall to the specified height; then extend just past the height of the poured slab.
2. Ensure a minimum 100 mm of KIM shotcrete between the slab and the perimeter.
3. Leave a ledge for the slab (width to be determined by structural; 100 mm for previous projects).
4. Ensure a minimum 25 mm clearance around exposed reinforcement (or as specified).
5. Clean all overspray from exposed reinforcement.
7. After the joint is shaped, lightly trowel the joint to leave a level but rough profile (this facilitates application of Krystol Waterstop Treatment).

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Typical top of wall joint



Double check clearance around exposed rebar and remove all overspray



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Top of Wall Construction Joints – Installing Krystol Waterstop Treatment:



Typical joint with Treatment prior to slab pour

Typical joint after slab pour, ready for the next wall shoot.

Installation Notes:

1. Clean and dampen the shotcrete surface.
2. Apply Krystol Waterstop Treatment according to Application Instruction 4.21. It is more efficient to apply Treatment before rebar placement for the slab creates congestion around the joint.
3. Protect from rain for 24 hours. Once hardened, the Treatment is resistance to weather.
4. Position formwork or plywood inserts to create a keyway in the wall/slab intersections as per Application Instruction 4.21 (see photos).

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3. Construction Joints – Vertical Wall Joints (Application Instruction 4.21)

Typical Vertical Wall Joint



Installation Notes:

1. Cut back shotcrete to 45 degrees.
2. Apply Krystol Waterstop Treatment after shotcrete has reached initial set (same day as shot).
3. Remove hardened Treatment from exposed reinforcement prior to the next shoot.
4. Crack inducing PVC waterstop is not needed at construction joints. Stop short of PVC, or shoot past at least five feet.
5. During the next shoot, form a keyway at the joint as done for the Control Joints.

Additional Considerations:

- Cut all reinforcement tie wires as short as possible to avoid unnecessary congestion within the wall cavity.
- The Krystol Assurance Program requires all walls to have an ASTM C309 curing membrane applied immediately after final finishing. ***Do not apply curing membrane to construction joints or control joint keyways.***