

VOLCLAY WATERSTOP-RX®

EXPANDING CONCRETE JOINT WATERSTOP

DESCRIPTION

WATERSTOP-RX is a sodium bentonite based waterstop designed to stop water infiltration through cast-in-place concrete construction joints by expanding upon contact with water to form a positive seal against the concrete. The key to WATERSTOP-RX's effectiveness is its 75% sodium bentonite content which provides superior expansion to seal and fill voids and cracks in the concrete. WATERSTOP-RX is an active bentonite/butyl-rubber based waterstop that is designed to replace passive PVC/Rubber dumbbell waterstops, thereby eliminating the requirement of special pieces, split-forming and seam welding.

WATERSTOP-RX has been successfully tested by independent testing firms to over 200 feet (60 meters) of hydrostatic water pressure, under both continuous immersion and wet/dry cycling.

WATERSTOP-RX is available in three sizes and shapes (see Product Table). WATERSTOP-RX 101 is produced in a rectangular shape measuring 1" x 3/4" (25 x 19 mm). WATERSTOP-RX 101T is produced in a trapezoidal shape measuring 1-1/4" x 1/2" (31 x 12 mm) with a reinforcing plastic scrim embedded in the top surface for high tensile strength. The patented trapezoidal shape distributes the expansive force over a greater area and allows the concrete to flow more readily over the product during placement. WATERSTOP-RX 102 is produced in a half-circle (Crescent) shape measuring 3/4" x 3/8" (19 x 9 mm).

Though Waterstop-RX possesses good resistance to many chemicals, the waterstop is not intended to be used as the primary joint sealant for chemical containment vessels. Consult manufacturer for guidance regarding chemical compatibility for secondary chemical containment applications. Additionally, Waterstop-RX is not an expansion joint sealant. Expansion joints require an expansion joint product provided by others.

WATERSTOP-RX is a reliable, cost-effective means to stop water infiltration through concrete cold joints. It can also be used around pipe and structural penetrations.

APPLICATIONS

Applications include both vertical and horizontal non-moving concrete construction joints, new to existing concrete construction, irregular surfaces, and around through-wall penetrations, such as plumbing and utility pipes. Additionally Waterstop-RX can seal around concrete pilings and steel H-piles passing through the slab. WATERSTOP-RX works in both continuous hydrostatic and intermittent hydrostatic conditions.

WATERSTOP-RX products are designed for reinforced structural concrete with a minimum of 3,000 psi compressive strength. RX-101 and RX-101T are designed for concrete 8" (200 mm) thick or greater with two rows of reinforcing steel. RX-102 is designed for vertical concrete 6" (150 mm) thick or greater; and horizontal concrete no less than 4" (100 mm) thick. RX-102 should be used in concrete with one row of steel reinforcement, concrete curbs, planter walls, fountains, and lightweight structural concrete.

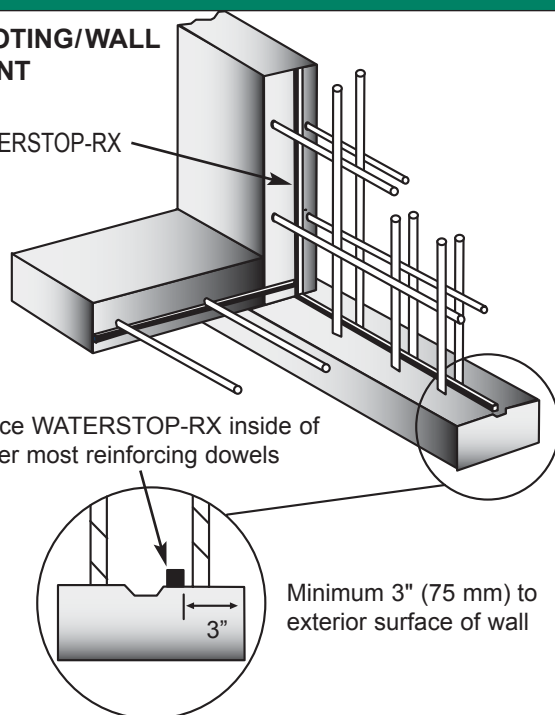
GENERAL APPLICATION DETAIL

FOOTING/WALL JOINT

WATERSTOP-RX

Place WATERSTOP-RX inside of outer most reinforcing dowels

Minimum 3" (75 mm) to exterior surface of wall



INSTALLATION

Surface preparation: Surfaces should be clean and dry. Remove all dirt, rocks, rust or other construction debris. Do not install WATERSTOP-RX in standing water or on an iced substrate.

Primer: Roller or brush apply WB-ADHESIVE a minimum of 5 mils thick, by the width of the product, along the entire surface length to receive WATERSTOP-RX. Allow adhesive to dry 5-10 minutes until black. Temperatures below 55°F (13°C), or in damp conditions allow longer period to dry. Typical application rate of adhesive is 400-600 linear feet per gallon (120 meters per 3.8 liters) .

Installation: After allowing adhesive to dry black, remove release paper, then firmly press the entire length of WATERSTOP-RX onto the adhesive. For vertical and overhead applications, firmly press a minimum of 15 seconds to assure adhesion. For best results apply WATERSTOP-RX within two hours of adhesive turning black. Areas not receiving waterstop within six (6) hours should be recoated with adhesive. WB-ADHESIVE may be applied to damp surfaces, but not in standing water.

Tightly butt coil ends together to form a continuous waterstop - **do not overlap coil ends**. Place in maximum practical lengths to minimize coil end joints. Where required, cut coils with a sharp knife or utility blade to fit coil ends together. Make horizontal to vertical transitions by abutting product coil sections together, no special accessory pieces are required.

At structural and pipe penetrations, cut into strips to fit around the penetration. Apply to cured adhesive and abut coil ends together.

On irregular surfaces such as stone or rough concrete, make sure waterstop remains in direct contact with the substrate along the entire installation. There should not be any air gap between the waterstop and the substrate.

LIMITATIONS

WATERSTOP-RX is not a self-adhering product. WB-ADHESIVE is required to secure WATERSTOP-RX to concrete, metal, or PVC (Pipe) surfaces. Mechanical fasteners should not be used to secure waterstop alone, but may be used in conjunction with WB-ADHESIVE. Do not use any other adhesive or construction sealant, except WB-Adhesive, to secure Waterstop-RX.

WATERSTOP-RX is not designed, nor intended to function as an expansion joint sealant. For precast concrete applications, contact manufacturer for product suitability and for any special installation requirements.

WATERSTOP-RX products are designed for structural concrete with a minimum of 3,000 psi compressive strength. WATERSTOP-RX 101 and RX-101T require a minimum of 3" (75 mm) of concrete coverage. WATERSTOP-RX 102 requires a minimum concrete coverage of 2" (50 mm). WATERSTOP-RX should only be used in applications where the product is completely encapsulated within the concrete.

WATERSTOP-RX should not be prehydrated by being subjected to submersion or remain in extended contact with water prior to encapsulation in concrete. If the product exhibits considerable swell prior to encapsulation in the concrete, it must be replaced with new material.

In conditions where severe ground water chemical contamination exists, or is expected, consult manufacturer for product chemical compatibility information.

PACKAGING

WATERSTOP-RX is available in corrugated cartons, palletized 36 cartons per pallet. Cartons are color coded for easy product identification. WB-ADHESIVE is packaged separately and is available in one-gallon cans; four cans per carton.

WATERSTOP-RX PRODUCT TABLE

PRODUCT	SIZE	ROLL LENGTH	CROSS-SECTION SHAPE	UNIT QTY/ CARTON	MIN. CONCRETE COVERAGE
RX-101	1" x 3/4"	16' 8" (5 m)	Rectangle	100 LF (30.4 m)	3" (75 mm)
RX-101T	1-1/4" x 1/2"	20' (6 m)	Trapezoid with Poly Scrim Reinforcement	120 LF (36.5 m)	3" (75 mm)
RX-102	3/4" x 3/8"	33' 4" (10 m)	Half-Circle	200 LF (60.9 m)	2" (50 mm)

ACCESSORY PRODUCTS

VOLCLAY WB-ADHESIVE is a water-based, latex adhesive specially formulated to adhere WATERSTOP-RX. Upon application, WB-ADHESIVE changes color from gray to black while curing. Install WATERSTOP-RX to cured, black adhesive within six (6) hours of turning black. WB-Adhesive is a non-flammable product with a flash point >200°F (93°C). Do not allow WB-Adhesive to freeze. Store in a warm, dry location prior to use.

LIMITED WARRANTY

Specifications and other information contained herein supersedes all previously printed matter and are subject to change without notice.

All goods sold by seller are warranted to be free from defects in material and workmanship. The foregoing warranty is in lieu of and excludes all other warranties not expressly set forth herein, whether expressed or implied by operation of law or otherwise, including but not limited to any implied warranties of merchantability or fitness.

Seller shall not be liable for incidental or consequential losses, damages or expenses, directly or indirectly arising for the sale, handling or use of goods, or from any other case relating thereto, and seller's liability hereunder in any case is expressly limited to the replacement (in the form originally shipped) of goods not complying with the agreement or at seller's election, to the repayment of, or crediting buyer with, an amount equal to the purchase price of such goods, whether such claims are for breach of warranty or negligence.

Any claim by buyer with reference to the goods sold hereunder for any cause shall be deemed waived by buyer unless submitted to seller in writing within thirty (30) days from the date buyer discovered or should of discovered, any claimed breach.

Materials should be inspected and tested by purchaser prior to their use if product quality is subject to verification after shipment. Performance guarantees are normally supplied by the applicator.

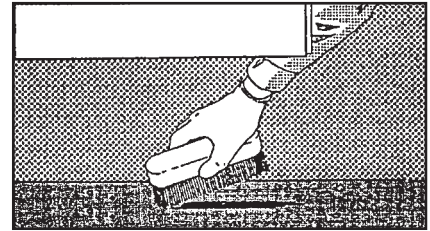
WATERSTOP-RX is not an expansion joint material nor should it be used as such. Watertightness of expansion joints is the responsibility of others.

TYPICAL PROPERTIES

PROPERTY	TEST METHOD	VALUE
Hydrostatic Head Resistance	Independent Test	231 Ft. (70 m)
Wet / Dry Cycling (25 Cycles @231 ft)	Independent Test	No Effect
Adhesion to Concrete using WB-Adhesive	Independent Test	Excellent

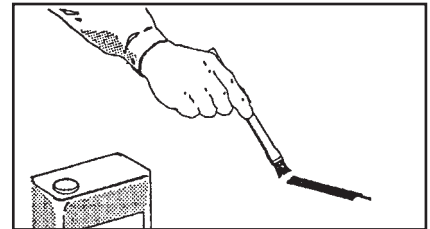
5 FAST & EASY INSTALLATION STEPS

STEP 1 CLEAN SURFACE



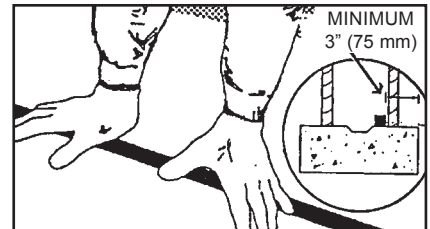
REMOVE ALL DIRT AND DEBRIS.

STEP 2 APPLY ADHESIVE



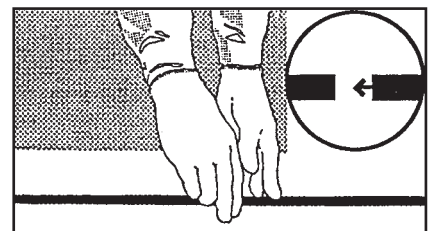
APPLY WB-ADHESIVE AND ALLOW TO CURE BLACK.

STEP 3 PLACE WATERSTOP



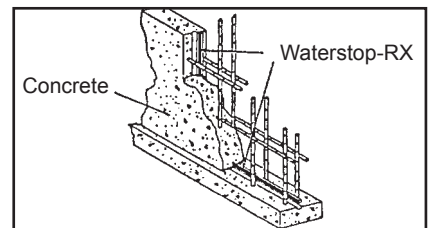
REMOVE RELEASE PAPER, THEN PRESS FIRMLY AGAINST WB-ADHESIVE. MAINTAIN MINIMUM CONCRETE COVERAGE DEPTH.

STEP 4 BUTT COIL ENDS



TIGHTLY BUTT COIL ENDS TO FORM A CONTINUOUS WATERSTOP. DO NOT OVERLAP COIL ENDS.

STEP 5 POUR CONCRETE



POUR AND VIBRATE CONCRETE.

VOLCLAY WATERSTOP-RX

EXPANDING CONCRETE JOINT WATERSTOP

TYPICAL PRODUCT APPLICATIONS

WATERSTOP-RX101 and RX101T

Vertical and horizontal concrete 8" (200 mm) thick or greater.
 Concrete with two rows of steel reinforcement
 Shotcrete Foundation Walls
 High hydrostatic pressures
 Tie-back plates and penetrations

WATERSTOP-RX 102

Vertical concrete 6" (150 mm) thick or greater.
 Horizontal concrete 4" (100 mm) thick or greater
 Concrete with one row of steel reinforcement
 Slabs containing only wire mesh
 Fountains / Planter Boxes / Curbs

TYPICAL WATERSTOP-RX FOUNDATION DETAILING

Install Waterstop-RX at all slab pour joints and connect with wall joint installation to form continuous waterstop.

Install Waterstop-RX at all wall pour joints.

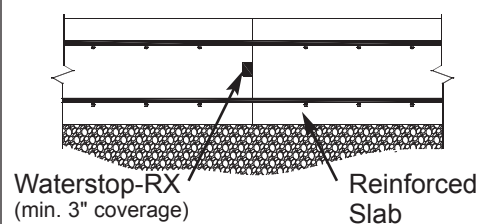
Reinforcing Steel

Install Waterstop-RX at footing/wall joint.

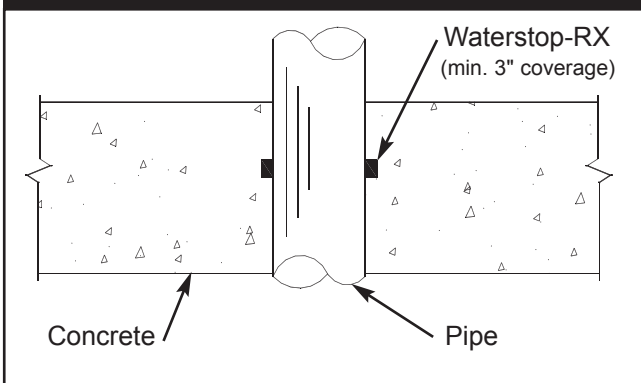
Install Waterstop-RX inside of outer most reinforcing steel

3" (75 mm)
 Minimum Concrete Coverage

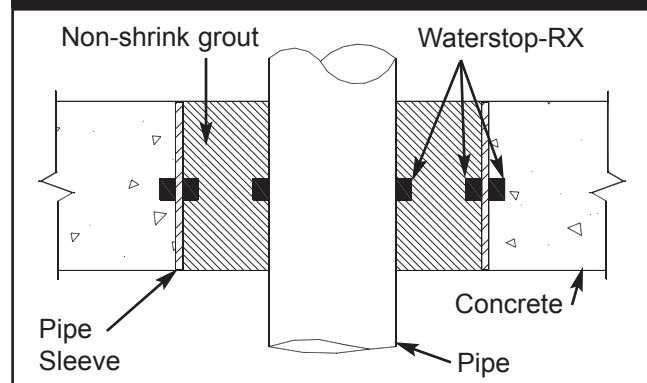
SLAB SECTION JOINT DETAIL



CAST-IN-PLACE PENETRATION DETAIL



SLEEVED PENETRATION DETAIL



MARCH 2005

(Supersedes All Previous Versions)

The information contained herein supersedes all previous versions printed prior to March 2005, and is believed to be accurate and reliable. CETCO warrants that the product conforms to the specifications published in this literature. Contact CETCO for limitations to the warranty. CETCO reserves the right to update information without notice.

CETCO[®]
 BUILDING MATERIALS GROUP

1500 West Shure Drive
 Arlington Heights, IL 60004-1440 USA
 Tel (847) 392.5800 Fax (847) 506.6195
 www.cetco.com
1-800-527-9948