



PVC Waterstop Submittal Package

Project Name: _____

Architect: _____

Engineer: _____

General Contractor: _____

Sub Contractor: _____

Specification Section: _____

Profile Type: _____

Profile Catalog #: _____

Table of Contents:

- Drawing of Profile
- Spec Sheet of Profile
- PVC Waterstop Compound Technical Data
- Waterstop Installation Procedure
- Common Factory Made Intersection
- PVC Waterstop Splicing Guidelines
- Recommended Epoxy Guide

INSERT DRAWING HERE
(PAGE LEFT BLANK INTENTIONALLY)

INSERT SPEC SHEET HERE
(PAGE LEFT BLANK INTENTIONALLY)



Technical Data Sheet PVC Waterstop Compound

Typical Properties	Minimum Value	ASTM Method
Water Absorption	0.15%	D-570
Tear Resistance, lb/in (kg/cm)	300 (53.5)	D-624
Specific Gravity, (+/-0.05)	1.38	D-792
Hardness, Shore A (+/-3, 10 sec. Delay)	80	D-2240
Tensile, psi (kg/cm ²)	2000 (140.61)	D-638, Type IV
Elongation, %	350	D-638, Type IV
100% Modulus, psi (kg/cm ²)	725 (50.75)	D-638, Type IV
Brittle Point (Tb), °F(°C)	-35 (-37)	D-746
Stiffness in Flexure, psi (kg/cm ²)	600 (42.18)	D-747
Ozone Resistance	No Failure	D-1149

Accelerated Extraction, CRD-C572

Tensile, psi (kg/cm ²)	1600 (112.49)	D-638, Type IV
Elongation, %	300	D-638, Type IV

Effect of Alkali, CRD-C572

Weight Change, %	-0/+0.25	—————
Change in Hardness, Shore A	±5	D-2240

This material meets or exceeds U.S. Army Corps of Engineers specification **CRD-C572-74**.

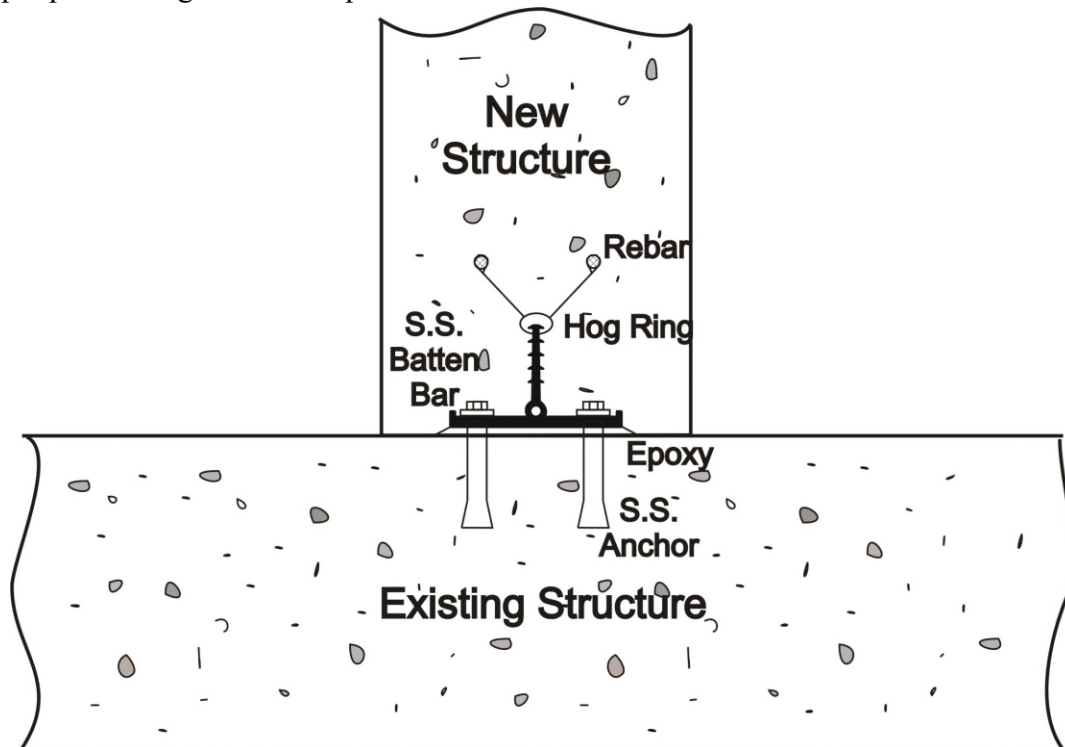
IMPORTANT: The technical data herein is believed to be accurate. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product. NO WARRANTY, EXPRESS OR IMPLIED, IS MADE INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein shall be construed as a license to operate under or recommendation to infringe any patents.

141 Hammond Street • Carrollton, Ga 30117 • Toll Free: 800-862-4835
Main Office: 770-832-2000 • Fax: 770-832-2095 • Website: www.bometals.com • Email: info@bometals.com

Retro Fit Waterstop Installation Procedure

Preparation:

During progress of work all waterstop should be protected from damage and should be free of oil, dirt and concrete spatter. Be sure steel reinforcing bars do not interfere with proper positioning of waterstop.



Location & Placement of Retro Fit

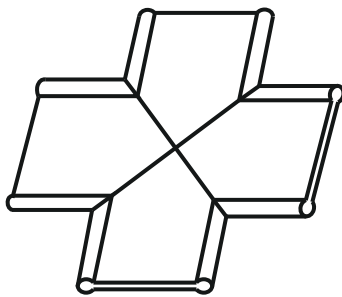
First, the existing concrete surface that will become a joint should be located by use of the construction drawings for the project. The existing concrete surface should be cleaned (sand blasted or grinded) to make sure the epoxy can have the best adhesion and seal.

Then apply a layer of epoxy to the existing concrete surface that is little wider than the base of the Retro Fit on both sides. The epoxy should be approximately 1/8" thick. Apply the epoxy per epoxy manufacturer instructions. Before the epoxy cures, secure the Retro Fit with stainless steel batten bar and anchors. When securing the Retro Fit with stainless steel batten bar and anchors, if it is a two batten bar system, it is important that they only be secured one side at a time to be able to position the Retro Fit to eliminate voids and/or air pockets.

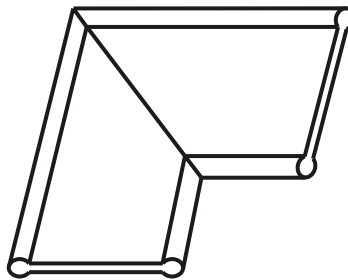
Placement of Concrete:

Care should be taken during concrete placement to prevent excessive movement of the Retro Fit to insure against displacement. Always thoroughly and systematically vibrate concrete around the waterstop to avoid air entrapment and to provide a positive contact between the Retro Fit & concrete.

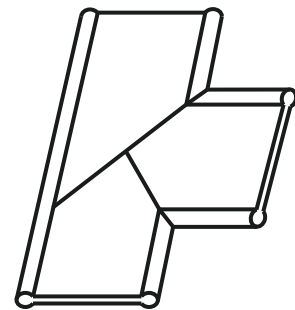
Common Intersections



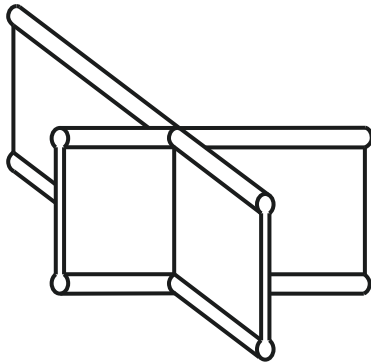
Flat Cross



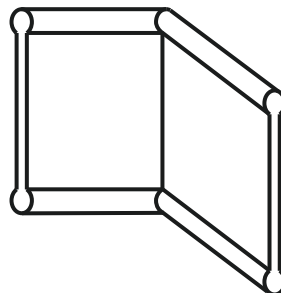
Flat Ell



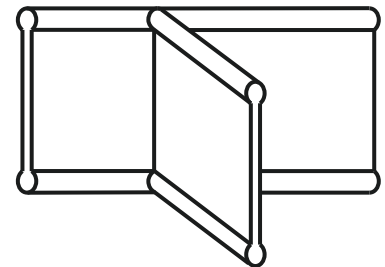
Flat Tee



Vertical Cross



Vertical Ell



Vertical Tee



Waterstop Splicing Field Guide

Following is the proper procedure for field splicing of nonmetallic waterstop. BoMetals highly recommends that all intersections be factory fabricated and that only straight butt joints be attempted in the field.

Equipment:

You will need a Teflon covered waterstop splicing iron (part # SI-414 Splicing Iron), a sturdy heat resistant work surface (part # ST-10 Field Splicing Machine), access to 115 VAC power, circular saw with carbide tipped blade, framing square, and miscellaneous jigs and fixtures to aid splicing.

Caution: When splicing PVC waterstop, inhalation of the fumes may be harmful to your health. Splicing should be done in only in well-ventilated areas.

Splicing:

1. Preheat splicing iron to 350°F-380°F for PVC or 390°F-410°F for TPER. Preheat iron for at least 30 minutes to assure even temperature.
2. Layout and cut the ends square using carbide tipped circular saw. Ends must be cut square and cleaned of debris to assure proper alignment and bond strength.
3. Dry Fit joint to check fin and bulb alignment before welding. Repeat step 2 if necessary.
4. Place iron between butt ends of the waterstop. Apply light and even pressure to the waterstop in the direction of the iron. Insure that the butt ends are heated evenly across the waterstop profile. A slot in the work surface would be helpful in allowing the iron to protrude below the bottom of the waterstop profile. Keep the waterstop in place and pressure applied until a 3/16" bead forms around the entire outside edge of the waterstop profile on both butt ends. Caution: Iron and plastics are hot. Take precaution to avoid burns. Do not hold the waterstop in contact with the iron so long that it begins to darken and burn. Burnt material will contaminate the joint and cause possible joint failure.
5. Remove iron and **immediately** join the butt ends together with light and even pressure. Care must be taken to align the profiles and maintain the continuity of the bulbs and ribs. Hold in place for approximately 3 minutes or until the bond is cooled enough to hold together. Do not bend, stretch, or stress the joint for approximately 10 minutes or until it has cooled to room temperature. Failure to join the ends quickly or premature stress can result in a poor weld and joint failure.
6. Wipe the iron clean with a clean dry cloth to remove any molten material. Burnt material will contaminate future joints and cause possible failures. Caution: Iron and plastics are hot. Take precaution to avoid burns.
7. Contact BoMetals Inc. 1-800-862-4835 with any questions or for assistance.

BoMetals Retro Fit Epoxy

DESCRIPTION

BoMetals Retro Fit Epoxy is a two component, moisture insensitive, high modulus, structural epoxy bonding gel used to seal and bond **BoMetals Retro Fit Waterstop** to existing concrete surfaces.

BoMetals Retro Fit Epoxy is 100% solids, solvent free, low odor, high strength, and non-sag.

Actual/Maximum VOC content = 0 grams per liter

APPLICATION

Mixing Instructions: Air, material and surface temperatures must be a minimum of 60°F prior to mixing or installation. To assist with mixing and dispensing, precondition material to 75°F. For bulk applications, mix equal volumes of Part A and Part B for three minutes with a low speed drill motor using a Jiffy mixer or paddle. Mix only as much material as can be used within the pot life.

Preparation:

Surfaces to be bonded must be clean and structurally sound and dry or damp (not wet). Remove all oil, grease, dirt, laitance, curing compounds, and any other foreign matter by sandblasting, mechanical abrasion or hydro blasting.

Bonding BoMetals Retro Fit Waterstop:

Apply a 1/8" layer of Retro Fit Epoxy to the properly prepared concrete surface. Application should extend at least 1/8" wider on each side of the **Retro Fit Waterstop**.

Immediately apply the **Retro Fit Waterstop** to the fresh epoxy and apply pressure to remove any entrapped air. Before the Retro Fit Epoxy cures, secure the waterstop with stainless steel batten bars and anchors.

If it is a two batten bar system, it is important to apply one side of the batten bar at a time. Apply pressure to remove any entrapped air or voids before applying the other batten bar.

LIMITATIONS

Always test a small amount of RETRO FIT EPOXY to verify that the product has been thoroughly mixed and will harden properly before proceeding. Do not thin with any solvent. Surface and air temperatures must be a minimum of 50°F and rising for application. Avoid hazards by following all precautions found in the Safety Data Sheets (SDS), product labels, and technical literature.

CLEANING

Tools and Equipment: Uncured material can be removed with a citrus cleaner or other approved solvent. Dispose of in accordance with local, state, and federal disposal regulations. Mechanical removal is necessary for cured material.

TYPICAL PROPERTIES

Mix Ratio	1 to 1
Mixed Color:	Gray
Viscosity:	Gel/Paste
Gel time (ASTM 881):	45 minutes

TYPICAL CURED PROPERTIES

Initial Cure	24 hours
Final Cure	7 days
Compressive Strength (ASTM D-695)	11,000 psi
Compressive Modulus (ASTM D-695)	320,000 psi
Bond Strength at 2 days (ASTM 882)	2,410 psi
Bond Strength at 14 days (ASTM 882)	3,150 psi
Elongation (ASTM D-638)	1.3%
Tensile Strength (ASTM D-638)	7,150
Water Absorption (ASTM D-570)	< 0.5%
Heat Deflection (ASTM D-648)	132°F



**141 Hammond St.
Carrollton, GA 30117
770-832-2000**

www.bometals.com info@bometals.com

PACKAGING

1 gallon units (1/2 gal of Part A, 1/2 gal of Part B)

SHELF LIFE

Store RETRO FIT EPOXY in its original containers and keep tightly closed. Do not allow the accumulation of water, dirt or other contaminants. The shelf life of properly stored RETRO FIT EPOXY is two years from date of manufacture.

PRECAUTIONS

Prolonged or repeated skin or eye contact may cause irritation. If contact occurs, wash immediately and seek medical help. Use safety glasses and wear protective rubber gloves. In case of ingestion, call a physician. Contact with skin may cause chemical burns. Wash immediately with soap and water. Avoid eye contact. If eye contact occurs, flush immediately with water. Product is a strong sensitizer. Avoid breathing vapors. Use safety glasses and wear protective rubber gloves.

INDUSTRIAL USE ONLY

Additional precautions, safety and first aid information are contained in the SDS.

WARRANTY

NOTICE-READ CAREFULLY CONDITIONS OF SALE

The manufacturer offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of The manufacturer. No other representative of or for The manufacturer is authorized to grant any warranty or to waive limitation of liability set forth below.

WARRANTY LIMITATION

The manufacturer warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, The manufacturer will replace the defective product with new product without charge to the purchaser. The manufacturer makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RE-



**141 Hammond St.
Carrollton, GA 30117
770-832-2000**

www.bometals.com info@bometals.com