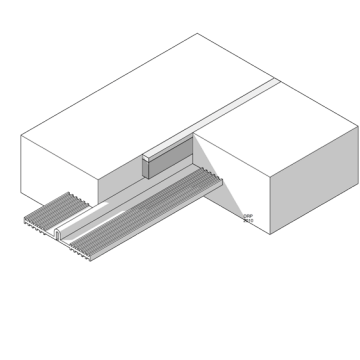
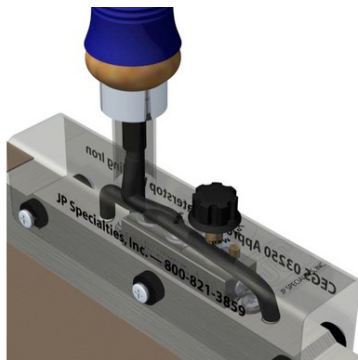
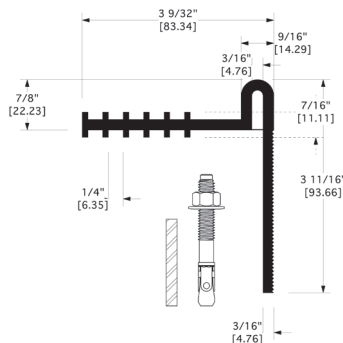
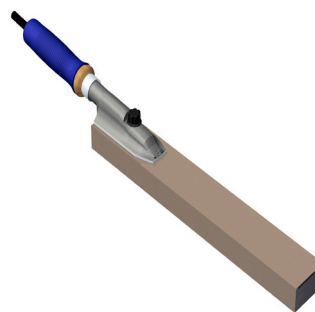
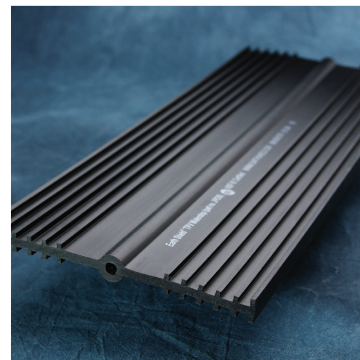
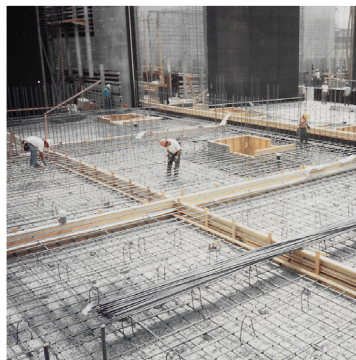
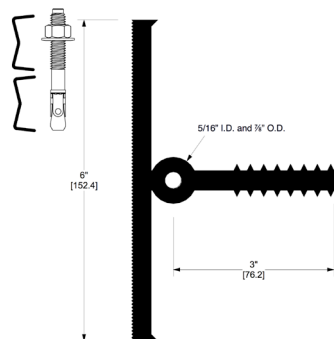


# EARTH SHIELD®

Manufactured  
by



## WATERSTOPS FOR CHEMICAL, INDUSTRIAL, & ENVIRONMENTAL APPLICATIONS



# PVC WATERSTOP

## CRD C572-74 and NSF 61 Certified PVC Waterstop for Concrete



"WATER IS OUR MOST VALUABLE COMMODITY. IT IS IMPORTANT TO PROTECT IT, EITHER FROM LOSS OR POLLUTION. PROPERLY INSTALLED WATERSTOP ACHIEVES BOTH GOALS." – **DAVID R. POOLE**



Earth Shield® Polyvinyl Chloride (PVC) Waterstop is used as a fluid-tight diaphragm, embedded in concrete, across and along the joint, for environmental engineered concrete structures. Earth Shield® Flexible PVC Waterstops are resistant to a wide range of water and wastewater treatment chemicals and are certified to meet or exceed the performance requirements of CRD C572-74.

Install Earth Shield® Flexible PVC Waterstop in all concrete joints. Waterstop should be centered in, and run the extent of the joint. All changes of directions should be prefabricated, leaving only butt-welding for the field. If installing in an expansion joint, keep center bulb unembedded to allow it to accommodate movement as designed. Use optional factory installed brass eyelets (or #3 hog rings) and tie wire to secure waterstop to reinforcing steel to avoid displacement during the concrete pour. Splice straight lengths of waterstop and Shop Made Fittings to straight lengths, with an ST-10® In-Line Waterstop Splicer with the iron temperature set to 350°F to 380°F.

**David R. Poole CSI, ACI, Assoc. AIA**

PRESIDENT

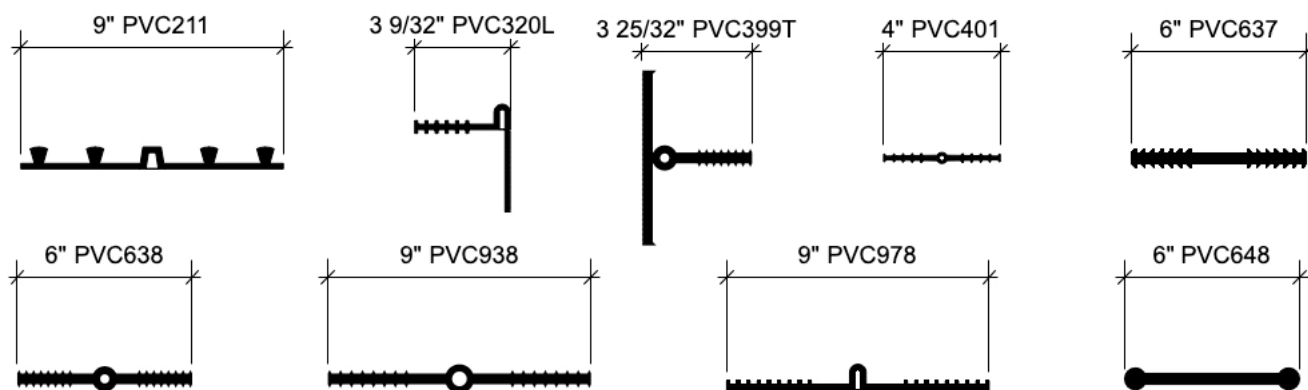
*More detailed installation instructions are in our Standard 3-part Specifications.*

"THE PRIMARY CHOICE FOR SECONDARY CONTAINMENT ®" CALL "THE WATERSTOP EXPERTS" AT 800-821-3859 (951-763-7077)  
[WWW.JPSPECIALTIES.COM](http://WWW.JPSPECIALTIES.COM)

**Earth Shield® Polyvinyl Chloride Waterstop (PVC) is the perfect solution for most water and wastewater applications. Earth Shield® PVC Waterstop is manufactured from prime virgin resin and is the trusted choice for environmental engineered concrete structures. CRD C572-74 compliant and NSF 61 certified waterstop profiles for new and retrofit applications.**

## Water and wastewater treatment plants, dams, locks and canals, tunnels and culverts, foundations

### Popular PVC Waterstop Profiles



[HTTPS://WWW.JPSPECIALTIES.COM/WATERSTOP-TECHNICAL-LIBRARY/WATERSTOP-CAD-DETAILS/](https://www.jpspecialties.com/waterstop-technical-library/waterstop-cad-details/)

Property	Test Method	Required Results
Specific Gravity	ASTM D792	1.38 to 1.40
Shore A Hardness (15 sec.)	ASTM D2240	77±3 at 25°C (77°F)
Tensile Strength	ASTM D638	2,100 psi
Ultimate Elongation	ASTM D638	400%
Stiffness in Flexure	ASTM D747	700 psi
Tear Resistance	ASTM D624	320 lbs./inch
Brittle Point	ASTM D746	-37°C (-35°F)
Accelerated Extraction Tensile Strength	Corps of Engineers	2,005 psi
Accelerated Extraction Elongation	Corps of Engineers	390%
Effect of Alkali Weight Change	CRD C572-74	+0.11%
Effect of Alkali Hardness Change	CRD C572-74	-0.6 points
Drinking Water Safe	NSF/ANSI 61	Waterstop certified by NSF for use in potable water

Standard 3-part Specifications are available at our website in Microsoft Word and Adobe PDF format, and upon request in printed and a variety of computer word processor formats. Call our Technical Sales Staff for additional help with your specification.

#### Suggested Proprietary Short Form Guide Specification

Waterstop indicated in drawings and specifications for contraction (control), expansion and construction joints shall be Earth Shield® Polyvinyl Chloride (PVC) Waterstop Part No. #### [Designer insert appropriate part number here] as manufactured by J P Specialties, Inc.; Murrieta, CA 92562; Phone 951-763-7077

1. Flexible Polyvinyl Chloride (PVC) Waterstop shall be manufactured with prime virgin resin.
2. Flexible Polyvinyl Chloride (PVC) Waterstop shall be independently certified for use in potable water per NSF/ANSI Standard 61. Third-party certified documentation to be provided by the manufacturer.
3. Flexible Polyvinyl Chloride (PVC) Waterstop shall be California Prop 65 compliant and contain no hazardous phthalates.
4. No equals or substitutions allowed.



# TPV WATERSTOP

## EPA Title 40 and NSF 61 Certified TPV Waterstop for Concrete



THE CHEMICAL RESISTANCE OF THE WATERSTOP MATERIAL, EXPOSURE, TEMPERATURE, CHEMICAL CONCENTRATION OF THE CONTAINED MATERIAL, AND ANY REQUIREMENTS FOR JOINT MOVEMENT SHOULD BE CONSIDERED WHEN SELECTING THE WATERSTOP MATERIAL. **ACI 350.2R-04**



**Primary and secondary containment, water and wastewater treatment plants, refineries, ozone contactors, mining facilities, fueling areas, chemical factories, manure pits**

"THE PRIMARY CHOICE FOR SECONDARY CONTAINMENT ®" CALL "THE WATERSTOP EXPERTS" AT 800-821-3859 (951-763-7077)  
[WWW.JPSPECIALTIES.COM](http://WWW.JPSPECIALTIES.COM)

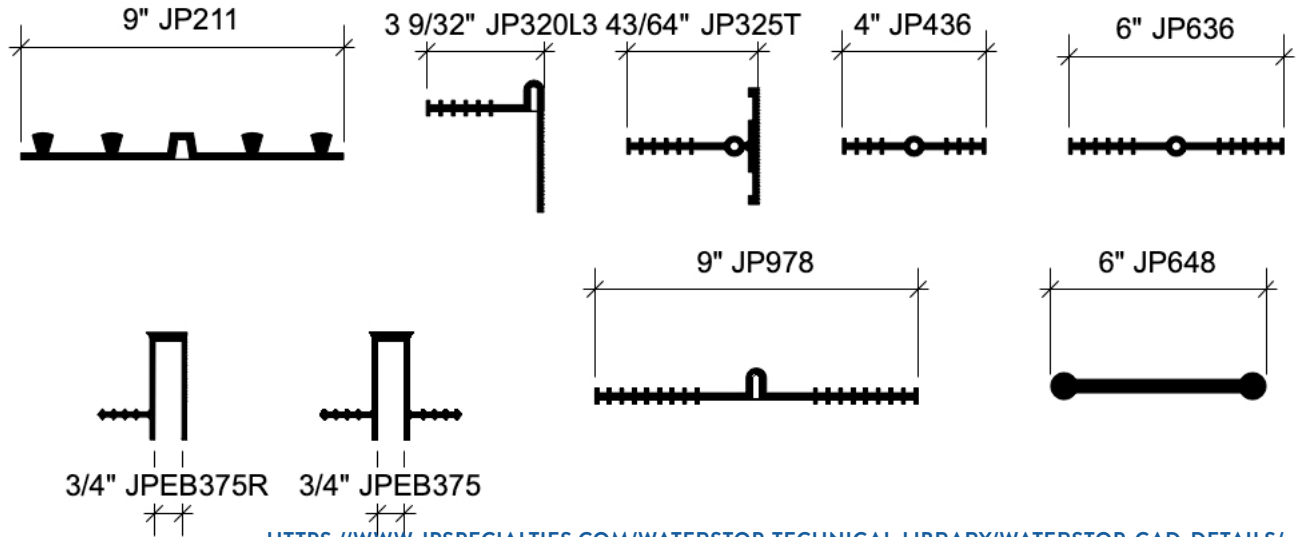


**Earth Shield® Thermoplastic Vulcanizate Waterstop (TPV) (aka TPE-R), by J P Specialties dramatically expands the scope of conventional waterstop by offering unmatched chemical resistance to a broad spectrum of aggressive chemicals, solvents, and hot petroleum oils.**

Earth Shield® Thermoplastic Vulcanizate Waterstop (TPV) (aka TPE-R) is used as a fluid-tight diaphragm, embedded in concrete, across and along the joint, for primary and secondary containment structures. Earth Shield® Chemical Resistant Waterstops are resistant to a wide range of oils, solvents, and aggressive chemicals. Alcohol, ketones, glycols, esters, and aqueous solutions of acids, salts, and bases have little effect on Earth Shield® Thermoplastic Vulcanizate Waterstop.

Unlike polyvinyl chloride (PVC) waterstop, Earth Shield® waterstop contains no plasticizer, stabilizer, or filler to leech out when exposed to chemicals, fuels, ozone, and aggressive industrial fluids. Also, unlike PVC waterstop, Earth Shield® can withstand prolonged exposure to high and low temperatures (-78°F to 275°F long term) without detrimental effect. Earth Shield® TPV Waterstop is NSF Standard 61 certified for use in drinking water and is made of a recyclable polymer, so it's good for your health and the environment.

## Popular TPV Waterstop Profiles



[HTTPS://WWW.JPSPECIALTIES.COM/WATERSTOP-TECHNICAL-LIBRARY/WATERSTOP-CAD-DETAILS/](https://www.jpspecialties.com/waterstop-technical-library/waterstop-cad-details/)

Property	Test Method	Required Results
Specific Gravity	ASTM D792	.96
Shore A Hardness (5 sec.)	ASTM D2240	90±3 at 25°C (77°F)
Tensile Strength	ASTM D412	2,300 psi
Ultimate Elongation	ASTM D412	530%
100% Modulus	ASTM D746	1,000 psi
Tear Strength	ASTM D624	278 pli at 25°C (77°F)
Compression Set	ASTM D395	29% at 25°C (77°F)
Brittle Point	ASTM D746	-61°C (-78°F)
Drinking Water Safe	NSF/ANSI 61	Waterstop certified by NSF for use in potable water
Ozone Resistance	ASTM D1171	Passed, no cracking at 600 pphm
Chemical Resistance	ASTM D471	Meet or exceed specific testing standards for contained fluids as required by Owner and certified by Manufacturer
Green Certification	GreenSpec	Approved

Standard 3-part Specifications are available at our website in Microsoft Word and Adobe PDF format, and upon request in printed and a variety of computer word processor formats. Call our Technical Sales Staff for additional help with your specification.

### Suggested Proprietary Short Form Guide Specification

Waterstop indicated in drawings and specifications for contraction (control), expansion and construction joints shall be Earth Shield® Chemical Resistant Waterstop Part No. #### [Designer insert appropriate part number here] as manufactured by J P Specialties, Inc.; Murrieta, CA 92562; Phone 951-763-7077

1. Thermoplastic Vulcanizate (TPV) Waterstop shall conform to EPA Title 40 Section 265.193. The suitability of the waterstop for a specific application should be determined by specific testing for that particular requirement per ASTM D471. Project-specific certification to be provided by the manufacturer.
2. Thermoplastic Vulcanizate (TPV) Waterstop shall be independently certified for use in potable water per NSF/ANSI Standard 61. Third-party certified documentation to be provided by the manufacturer.
3. No equals or substitutions allowed.

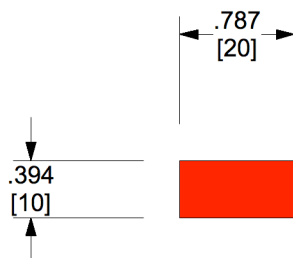
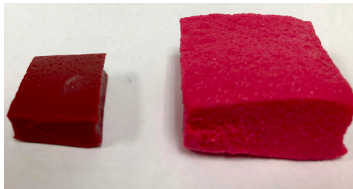
# MCR WATERSTOP

## NSF 61 Certified MCR Waterstop for Concrete

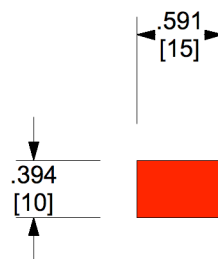


Type NB190® is a modern, hydrophilic chloroprene rubber waterstop with unmatched durability and water sealing capabilities. Manufactured NON-BENTONITE, modified chloroprene rubber, Type NB190® more than doubles its original size (400% in 36 days) when exposed to water. This expansion creates an effective compression seal within joints of limited to no movement. Type NB190® can expand and reexpand unlimited times with virtually no loss of physical properties. Additionally, Type NB190® has excellent resistance to many chemicals, is heat-resistant, and is NSF 61 certified-safe for drinking water.

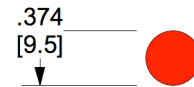
**Type NB190®**



**Profile A**  
For concrete  
construction joints and  
pipe penetrations



**Profile B**  
For concrete  
construction joints with  
minimal concrete clear  
cover



**Profile C**  
For joint repair and  
special applications

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CONTAINMENT ®" CALL "THE WATERSTOP  
EXPERTS" AT 800-821-3859 (951-763-7077)  
[WWW.JPSPECIALTIES.COM](http://WWW.JPSPECIALTIES.COM)

## Water and wastewater treatment plants, pipe penetrations, storage tanks, slab on grade, foundations, tunnel segments



**Type NB190®  
Hydrophilic Waterstop  
Paste**

Earth Shield® Type NB190® Hydrophilic Waterstop Paste is for use in concrete cold joints, pre-cast joints, tunnel segments, pipe penetrations, and as an optional adhesive for Type NB190® hydrophilic chloroprene rubber waterstops. The product has a 250% expansion when immersed in fresh water for 30 days.

### **Suggested Proprietary Short Form Guide Specification**

Waterstop indicated in drawings and specifications for non-moving construction joints shall be Earth Shield® Modified Chloroprene Strip Applied Waterstop Type NB190® Profile No. #### [Designer insert appropriate profile number here [A, B, or C]] as manufactured by J P Specialties, Inc.; Murrieta, CA 92562; Phone 951-763-7077

1. Earth Shield® Modified Chloroprene Strip Applied Waterstop shall be manufactured from chloroprene and contain no bentonite.
2. Earth Shield® Modified Chloroprene Strip Applied Waterstop shall have a maximum compression set of 45% or under.
3. Minimum concrete cover shall be no less than 3 inches.
4. Adhere to concrete using Type NB190® Adhesive.
5. No equals or substitutions allowed.

- Comprised of **NON-BENTONITE**, modified chloroprene rubber
- 100-plus year lifespan
- Simple, low cost installation
- Ideal for retrofit as well as new construction
- Most profiles have a minimum of 231 ft (100 psi) resistance to water head pressure

**Type NB190® more than doubles its original size when exposed to water, creating an effective compression seal within concrete construction joints of limited to no movement.**

# METAL WATERSTOP

## Stainless Steel Waterstop

EARTH SHIELD® STAINLESS STEEL WATERSTOP CAN STOP EVEN THE MOST CORROSIVE FLUIDS IN THEIR TRACKS, EVEN AT SEVERELY ELEVATED TEMPERATURES. A VARIETY OF METALS, GRADES, AND GAUGES ARE AVAILABLE. EARTH SHIELD® UTILIZES 20 GAUGE 316 LOW CARBON AS OUR STANDARD ALLOY, WHICH OFFERS BROAD-SPECTRUM CORROSION RESISTANCE TO MOST AGGRESSIVE MEDIA, AND IS VIRTUALLY UNTOUCHED BY THE DELETERIOUS EFFECTS OF OZONE, MAKING IT AN IDEAL CHOICE FOR OZONE CONTACTOR STRUCTURES USED IN MODERN WATER TREATMENT PLANTS.

Install Earth Shield® Stainless Steel Waterstop in all concrete joints. Waterstop should be centered in, and run the extent of the joint. All changes of directions should be prefabricated (see Shop Made Fittings), leaving only butt-welding for the field. Splices in stainless steel waterstops shall be welded using a TIG (recommended) or MIG process utilizing a welding rod to match the stainless (weld rod: 316ELC; diameter — .035 to .045). Repair damaged waterstops by removing damaged portions and patching. Patches shall overlap a minimum of 1 inch onto an undamaged portion of the waterstop. Weld all straight run material edge-to-edge (no overlapping). If installed in an expansion joint, assure backside (or open end of the center "V") is covered completely with tape and the annulus (between tape and waterstop) is filled with 7/8" diameter backer rod before concrete pour. The tape and backer rod allows the center "V" to remain open allowing for joint movement. (Tape and backer rod is not necessary for non-moving contraction and construction joints.) More detailed installation instructions are in our Standard 3-part Specifications.



**Primary and secondary containment, Wastewater treatment plants, refineries, ozone contactors, fueling areas, chemical factories, LNG plants, fire resistance**



# STOP

## Carbon Steel Waterstop

EARTH SHIELD® CARBON STEEL WATERSTOP IS AVAILABLE IN A VARIETY OF GRADES, GAUGES, WIDTHS, AND FINISHES. ALL WATERSTOP IS MADE TO ORDER TO THE REQUIRED ASTM OR SPECIFICATION REQUIREMENTS.

Many projects, especially those designed by Black & Veatch Engineers, require the use of Carbon Steel Waterstop. J P Specialties manufactures Carbon Steel Waterstop in a variety of shapes, gauges, and grades.

### Reference ASTM Specifications — Hot-Rolled Carbon

ASTM A569 — Standard Specification for Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled sheet and Strip Commercial.

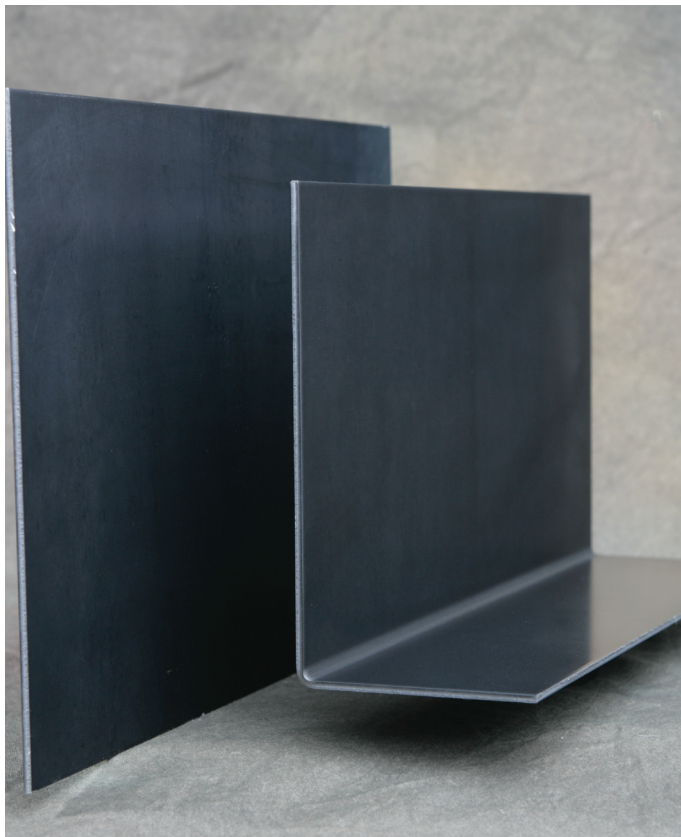
ASTM A505 — Standard Specification for Steel, Sheet and Strip, Alloy, Hot-Rolled and Cold-Rolled, General Requirements For.

ASTM A506 — Standard Specification for Steel, Sheet and Strip, Alloy, Hot-Rolled and Cold-Rolled, Regular Quality and Structural Quality.

ASTM A570 — Standard Specification for Steel, Sheet and Strip, Alloy, Carbon, Hot-Rolled (Replaced by ASTM A1011).

ASTM A1011 — (Replaces ASTM A570) Standard Specification for Steel, sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low Alloy with Improved Formability.

ASTM A36 — Standard Specification for Carbon Structural Steel.



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[WWW.JPSPECIALTIES.COM](http://WWW.JPSPECIALTIES.COM)

# SERVICES

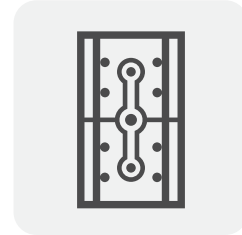
[HTTPS://CALENDLY.COM/WATERSTOP](https://calendly.com/waterstop)

WE PROVIDE TECHNICAL SUPPORT FOR A COMPLETE RANGE OF WATERSTOPS AND WATERSTOP ACCESSORIES. OUR WATERSTOP PRODUCTS (PVC, TPV, STAINLESS STEEL, AND STRIP-APPLIED) HAVE THE BEST PHYSICAL PROPERTIES IN THE INDUSTRY, AND MORE IMPORTANTLY, WE PROVIDE UNMATCHED SERVICE AND TECHNICAL SUPPORT.



## Waterstop Engineering Webinar

Waterstops for Environmental Compliance of Liquid Tight Concrete Structures is a targeted course of instruction and professional development for engineering firms engaged in the design of chemical, industrial, and environmental projects. The course is technical in nature and describes waterstops role in fluid-proofing concrete joints, chemical resistant polymers and steels, and state and federal regulations of compliance. The course is one (1) hour time frame. The course is certified for one (1) Professional Development Hour (PDH) credit.



## One-on-One Zoom Meeting

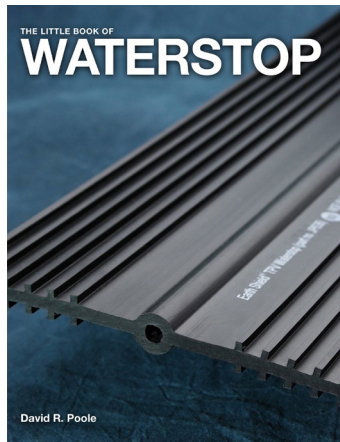
Discuss your waterstop application with our technical engineering team.





### Waterstop Welding Webinar

J P Specialties is a leading manufacturer of waterstop and we have presented our plastic welding certification course to hundreds of contractors all over the world. This training program is a live interactive broadcast from our manufacturing facility and our trainers present an on-camera program that is the same as we teach in person. The job site crew can observe, interact, and ask clarification questions. Our expert staff will work hand in hand with the contractor's on-site leader and his crew so they can learn correct waterstop welding procedures to make liquid tight joints.



### Earth Shield® Waterstop Limited Warranty

J P Specialties, Inc. warrants to the Buyer that this product is new and will be free from defects and will perform as represented in writing subject to the two (2) following conditions: First, the application of the product and the concrete construction practices used in the application are in accordance with J P Specialties, Inc. recommendations; and, Second, the Buyer has selected the proper product for the specific application required. Any information supplied in good faith by J P Specialties, Inc. with respect to its products is believed to be correct. J P Specialties, Inc. Makes no representation or warranties, expressed or implied, as to the accuracy or completeness of such information. The exclusive remedies of the Buyer and the limit of the liability of J P Specialties, Inc. from any and all losses or damages resulting from the use of this product shall be either full refund of the purchase price to the Buyer of this product or the replacement of the quantity of product purchased by the Buyer at the discretion of J P Specialties, Inc.

*All supplied testing data has been performed by independent testing laboratories.*

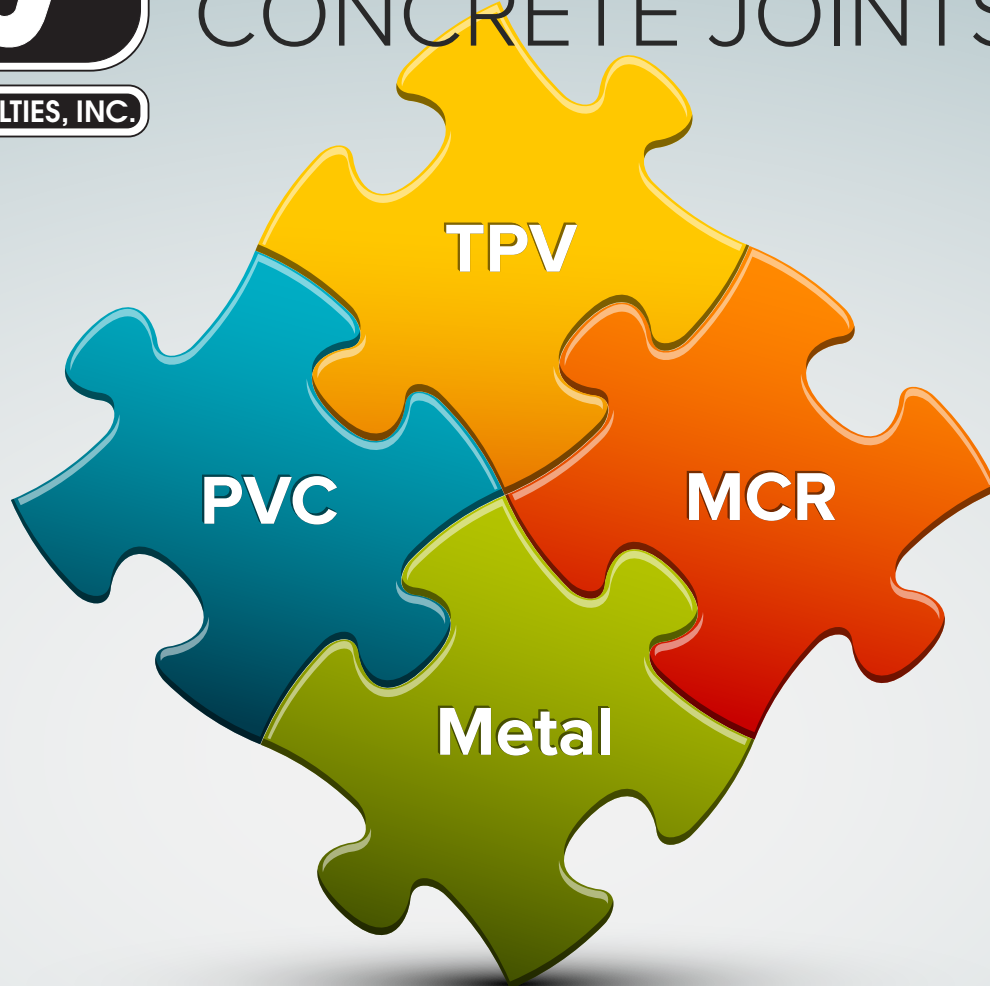






J P SPECIALTIES, INC.

# WATERSTOPS FOR CONCRETE JOINTS



EARTH SHIELD® at [WWW.JPSPECIALTIES.COM](http://WWW.JPSPECIALTIES.COM)

J P Specialties, Inc. provides technical support for a complete range of waterstops and waterstop accessories. Our waterstop products (PVC, TPV, stainless steel, and MCR strip-applied) have the best physical properties in the industry, and more importantly, we provide unmatched service and technical support. J P Specialties also provides on-site and on-line waterstop welding schools and certifies attendees for the proper welding of waterstops.

# WWW.JPSPECIALTIES.COM

J P SPECIALTIES, INC.  
25811 JEFFERSON AVENUE  
MURRIETA, CA 92562  
800-821-3859

[WWW.JPSPECIALTIES.COM](http://WWW.JPSPECIALTIES.COM)

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