WATERPROOFING
Sika® Greenstreak® PVC WATERSTOPS

Greenstreak BUILDING TRUST

Sika® Greenstreak® PVC WATERSTOPS

As an industry pioneer and one of the first manufacturer's of polyvinyl chloride (PVC) waterstop Sika® Greenstreak® provides you with the highest quality and most specified waterstop brand on the market. Sika® Greenstreak®'s PVC waterstop has always been made from a proprietary formula that is self-compounded and only produced from prime virgin materials.

PVC is the industry standard for flexible waterstops, which are typically embedded across and along the joint. PVC is the most versatile waterstop material, offering the broadest design selection and is accepted under the ACI 350 "Code Requirements for Environmental Engineering Concrete Structures". It has great inherent elasticity and is resistant to many waterborne chemicals. It will not discolor concrete or produce electrolytic action.

PHYSICAL PROPERTIES

All Sika® Greenstreak® PVC waterstops are specially formulated and manufactured to meet or exceed industry standard product specifications.

Sika® Greenstreak® PVC Waterstops		
Property	Test	Value
Water absorption	ASTM D570	0.15% max.
Tear resistance	ASTM D624	300 lb/in min.
Ultimate elongation	ASTM D638	350% min.
Tensile strength	ASTM D638	2000 psi min.
Low temperature brittleness	ASTM D746	Passes @ -35°F / -37°C
Stiffness in flexure	ASTM D747	700 psi min.
Specific gravity	ASTM D792	1.38 max.
Hardness Shore A15	ASTM D2240	79±3
Accelerated extraction -Tensile strength -Elongation	Corps of Engineers	 1600 psi min. 300% min.
Effect of Alkali -Weight change -Hardness change	CRD-C 572	 +0.25% -0.10% +/-5 points

SIKA CONDUCTS REGULAR TESTING OF MATERIALS.

Independent laboratory tests are available for the following applicable standards:

- Corps of Engineers CRD-C 572-74
- Bureau of Reclamation
- CH2M HILL
- MWH
- Various State Highway and/or Public Works Department Standards

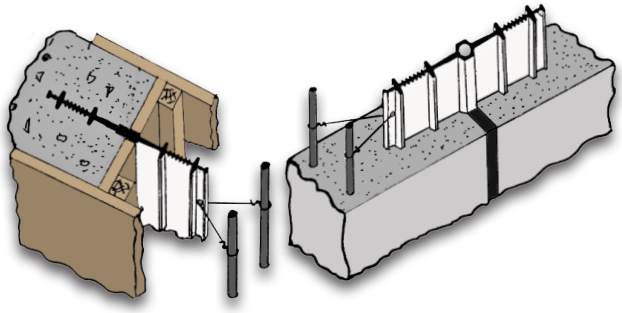
CHOOSING THE RIGHT WATERSTOP

WATERSTOP BASIC USE

Embedded in concrete, across and/or along the joint, waterstops form a watertight diaphragm that prevents the passage of liquid through the joint.

Offering a variety of solutions across all categories of waterstops, Sika has the knowledge and time tested products to meet the most demanding applications.

- Water/Waste Water Treatment Plants
- Lock and Dam Systems
- Reservoirs and Aqueducts
- Flood Walls
- Retaining Walls
- Foundations
- Tunnels and Culverts
- Bridge Abutments
- Containment Structures and Tanks
- Slabs-on-Ground



When you specify Sika® Greenstreak®, you are specifying THE first name in waterstops and the trusted source for superior technical and customer service.

SUGGESTED WATERSTOP DESIGN CHECKLIST

- Verify chemical containment requirements, if any
- Verify hydrostatic head pressure requirements
- Determine joint type and joint movement requirements
- Specify material type for best water sealing performance
- Specify profile and size (by product number, if possible)
- Verify joinery details of dissimilar or asymmetric waterstop profiles, if any (consider using one profile throughout to simplify intersections)
- Specify factory fabrications and fittings for transitions and intersections
- Specify appropriate method for securing waterstop in position (see Sika® Greenstreak® CSI-formatted product specifications for additional guidance)

All Sika® PVC and TPER waterstop profiles are NSF-61 Certified.

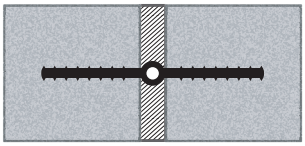
NSF®

Certified to NSF/ANSI 61

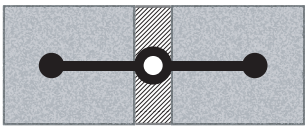
MOVING AND NON-MOVING JOINTS

SELECTING A WATERSTOP SHAPE

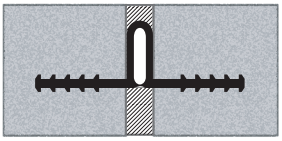
MOVEMENT JOINTS are typically designed to accommodate significant movement due to drying shrinkage, temperature changes, settlement, creep, or live load deflections. The waterstop profile selected must have the ability to accommodate expected joint movement, typically achieved through the use of a centerbulb, tear web, or other suitable waterstop geometry designed to accommodate joint movement. Movement joints typically include contraction joints, expansion joints, and isolation joints. The following profiles are suitable for movement joints:



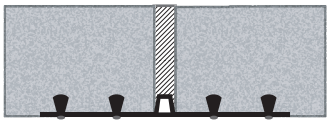
Ribbed with Centerbulb shapes are the most versatile and best sealing type of waterstops available. The centerbulb accommodates lateral, transverse, and shear movement. Larger centerbulbs will accommodate greater movement.



Dumbbell with Centerbulb shapes accommodate lateral, transverse, and shear movement. Larger centerbulbs will accommodate greater movement. Consider using Ribbed with Centerbulb for better sealing characteristics.

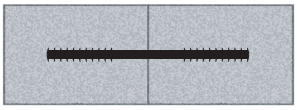


Tear Web shapes accommodate large movements. When joint movement occurs, the tear web ruptures and allows the U-bulb to deform without placing the material in tension.

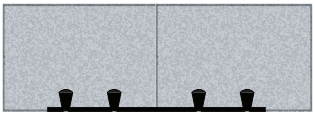


Base Seal with Tear Web shapes accommodate lateral, transverse, and shear movement. Larger tear web bulbs will accommodate greater movement. Base Seal waterstops have some limitations with transitions and intersections.

NON-MOVING JOINTS typically have 100% of the bonded steel reinforcement continuous through the joint, and expose the waterstop to negligible or no movement. Flat waterstop profiles without a centerbulb or tear web are suitable for non-moving joints. Other waterstop materials may be considered for non-moving joints as well, such as strip-applied or injectable hose waterstops. Examples of waterstop profiles suitable for non-moving joints are as follows:

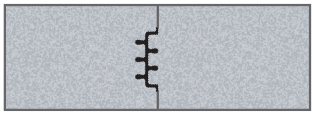


Flat Ribbed shapes are preferred for non-moving joints and provide the best sealing characteristics.



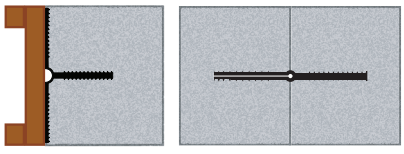
Base Seal is ideal for slab-on-grade joints or backfilled walls and are easy to form. Base Seal waterstops have some limitations with transitions and intersections.

Dumbbell shapes are an alternate profile for non-moving joints. Consider ribbed shapes for better sealing characteristics.

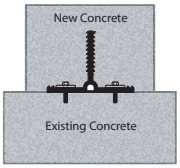


Labyrinth is primarily used in vertical joints. Labyrinth shapes create a keyed joint and do not require split bulkheads. Labyrinth can be difficult to use in horizontal joints and there are some limitations with transitions and intersections.

Split Flange shapes can simplify forming. The split flange is opened and attached to the bulkhead for placement of the first concrete element. After stripping the bulkhead, the flange is closed and anchored for placement of the adjoining element. Split waterstops are suitable for straight runs only. Transitions and intersections are not practical with these profiles.



Retrofit Waterstops seal joints where new construction meets an existing structure and can be suitable for moving joints. Systems include stainless steel batten bars and fasteners for anchoring to the existing structure with the aid of a structural epoxy gel.

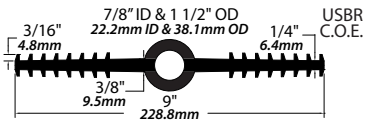


PROJECT PROFILES AND SIZES

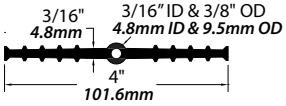
SHAPES ARE DRAWN TO VARYING SCALES

RIBBED CENTERBULB

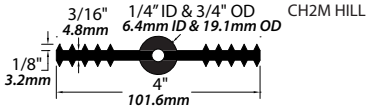
NO.	STD. WT.	HEAD PRESS.
696	2.65 lb/ft (3.94 kg/m)	175' (523 KPa)



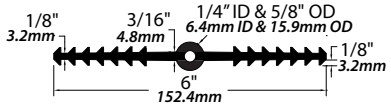
701	0.42 lb/ft (0.63 kg/m)	65' (194 KPa)



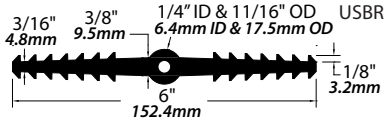
702	0.74 lb/ft (1.10 kg/m)	65' (194 KPa)



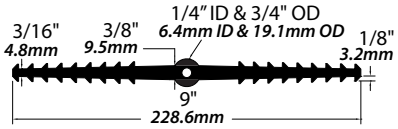
703	0.73 lb/ft (1.09 kg/m)	100' (299 KPa)



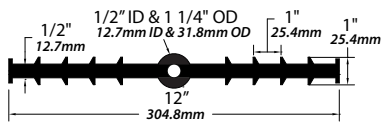
705	1.19 lb/ft (1.77 kg/m)	125' (373 KPa)



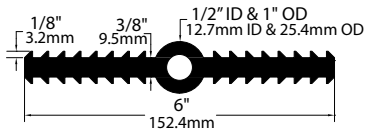
709	1.63 lb/ft (2.43 kg/m)	175' (523 KPa)



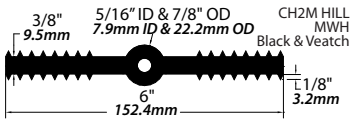
712	4.38 lb/ft (6.52 kg/m)	225' (672 KPa)



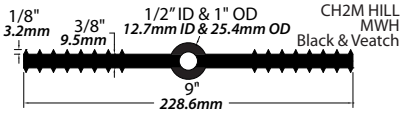
717	1.52 lb/ft (2.26 kg/m)	125' (373 KPa)



732	1.60 lb/ft (2.38 kg/m)	125' (373 KPa)

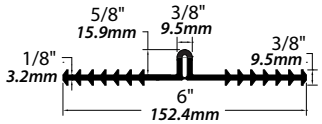


735	2.45 lb/ft (3.65 Kg/m)	175' (523 KPa)

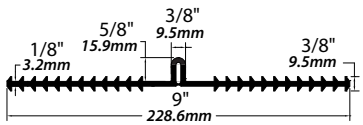


RIBBED TEAR WEB

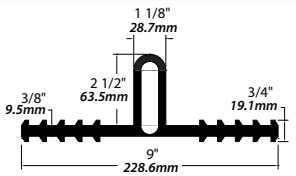
NO.	STD. WT.	HEAD PRESS.
698	0.78 lb/ft (1.16 kg/m)	65' (194 KPa)



699	1.00 lb/ft (1.49 kg/m)	100' (299 KPa)

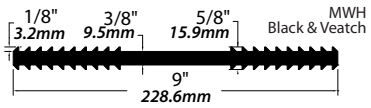


700	3.78 lb/ft (5.63 kg/m)	150' (448 KPa)

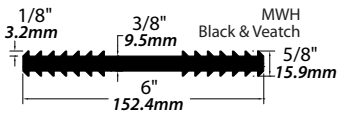


FLAT RIBBED

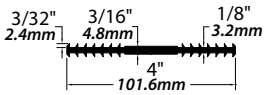
NO.	STD. WT.	HEAD PRESS.
646	2.37 lb/ft (3.53 kg/m)	175' (523 KPa)



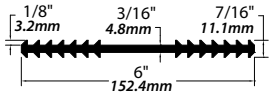
679	1.50 lb/ft (2.23 kg/m)	125' (373 KPa)



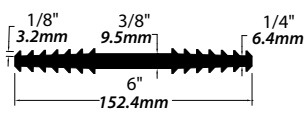
781	.43 lb/ft (.64 kg/m)	65' (194 KPa)



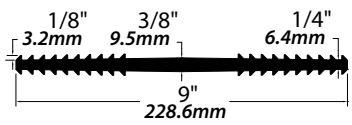
782	.84 lb/ft (1.25 kg/m)	75' (224 KPa)



783	1.39 lb/ft (2.07 kg/m)	125' (373 KPa)



786	2.07 lb/ft (3.08 kg/m)	175' (523 KPa)



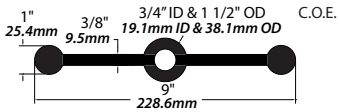
FOR A FULL LIST OF AVAILABLE WATERSTOP PROFILES VISIT: USA.SIKA.COM

PROJECT PROFILES AND SIZES

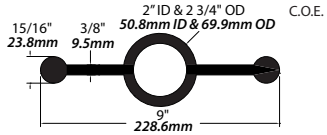
SHAPES ARE DRAWN TO VARYING SCALES

DUMBBELL CENTERBULB

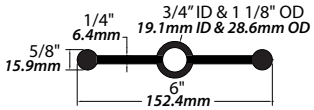
NO.	STD. WT.	HEAD PRESS.
753	3.10 lb/ft (4.61 kg/m)	150' (448 KPa)



754	3.70 lb/ft (5.51 kg/m)	150' (448 KPa)

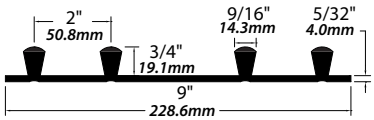


757	1.41 lb/ft (2.10 kg/m)	100' (299 KPa)

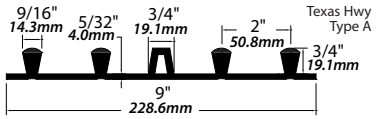


BASE SEAL

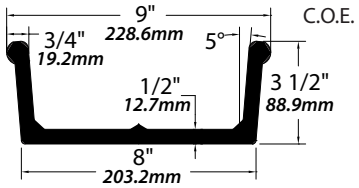
NO.	STD. WT.	HEAD PRESS.
771	1.53 lb/ft (2.28 kg/m)	100' (299 KPa)



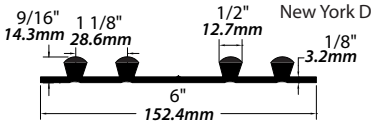
772	1.85 lb/ft (2.75 kg/m)	100' (299 KPa)



775	4.64 lb/ft (6.91 kg/m)	

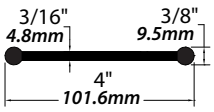


776	.83 lb/ft (1.24 kg/m)	100' (299 KPa)

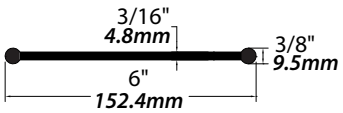


DUMBBELL

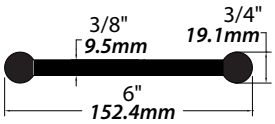
NO.	STD. WT.	HEAD PRESS.
741	0.47 lb/ft (0.70 kg/m)	65' (194 KPa)



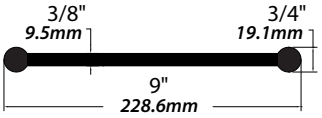
746	0.71 lb/ft (1.06 kg/m)	75' (224 KPa)



748	1.51 lb/ft (2.25 kg/m)	125' (373 KPa)



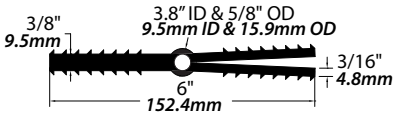
751	2.18 lb/ft (3.24 kg/m)	150' (448 KPa)



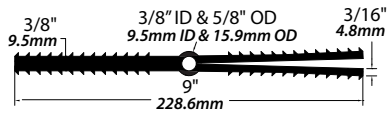
752	2.55 lb/ft (3.79 kg/m)	150' (448 KPa)

SPLIT FLANGE

NO.	STD. WT.	HEAD PRESS.
724	1.54 lb/ft (2.29 kg/m)	125' (373 KPa)

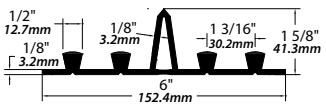


727	2.25 lb/ft (3.35 kg/m)	150' (448 KPa)



CRACK INDUCER

NO.	STD. WT.	HEAD PRESS.
639	1.03 lb/ft (1.53 kg/m)	100' (299 KPa)

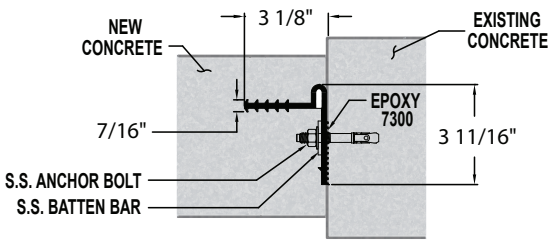


PROJECT PROFILES AND SIZES

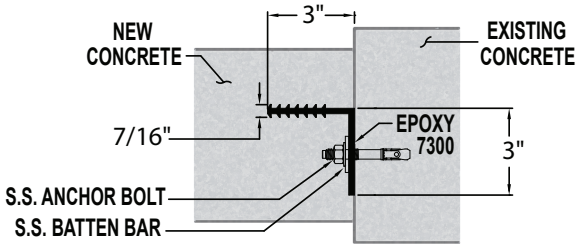
SHAPES ARE DRAWN TO VARYING SCALES

RETROFIT WATERSTOP SYSTEMS

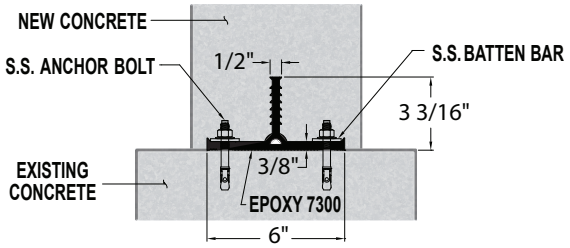
NO.	SYSTEM STD. WT. with hardware
581	1.51 lb/ft (2.25 kg/m)



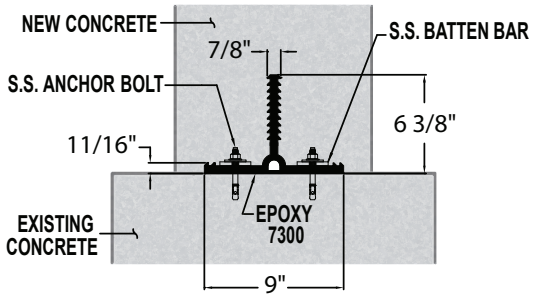
NO.	SYSTEM STD. WT. with hardware
655	1.38 lb/ft (2.05 kg/m)



609	2.92 lb/ft (4.35 kg/m)



667	8.27 lb/ft (12.31 kg/m)



A NOTE ABOUT HEAD PRESSURE RATINGS: Head Pressure Ratings are based on parameters published in the Corps of Engineers document, Waterstops and Other Preformed Joint Materials for Civil Works Structures EM 1110-2-2101, dated 30 September 1995. Sample testing conducted by Sika® on select profiles has indicated a conservative tendency in these ratings. That said, the published Head Pressure Ratings should be considered to be ultimate values. An appropriate safety factor should be applied to these values. Contact a Sika® Greenstreak® representative for more information.

INSTALLATION AIDS AND FABRICATIONS

PVC waterstops must be securely positioned in the forms to prevent deflection or misalignment during concrete placement. This is achieved by tying off the outer edge of the waterstop to adjacent reinforcing steel. Sika offers options to properly anchor PVC waterstop, including:

- PUNCHED FLANGES - most ribbed shapes can be provided with punched flanges
- GROMMETS - select shapes can be provided with brass grommets
- HOG RINGS AND PLIERS - available for field application and suitable for most shapes

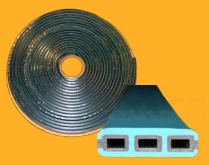
Hog Rings and Pliers

Virtually every concrete structure requiring a PVC waterstop is going to encounter a joint that will change direction or intersect with another joint. One of the benefits PVC offers is the ability to heat weld the material to create a continuous sealing diaphragm within the joints of a concrete structure. Waterstop failures are often the result of improper field fabricated transitions and intersections. Sika strongly recommends factory made fabrications to help reduce failure of your waterstop system. Heat welding is the only recognized installation method for PVC waterstop. Sika® Greenstreak® offers a full range of Splicing Irons with replacement covers to fill this requirement. Please contact the Sika® Greenstreak® sales department for additional details.

PVC WATERSTOP COMPANION PRODUCTS

SIKA® GREENSTREAK® ALSO OFFERS THE BELOW ACCESSORY ITEMS, WHICH CAN BE USED IN CONJUNCTION WITH OUR PVC WATERSTOPS ENSURING A FULLY WATERTIGHT STRUCTURE .

X-Plug® Mechanical Taper Tie Void Plug
The X-Plug® is a "patented" mechanical plug specifically designed to SEAL the void formed in a concrete wall by the removal of a taper tie rod or pass through tie sleeve.



Sika® Hydrotite® is a world renowned hydrophilic waterstop. Composed of modified chloroprene rubber protected with a special delay coating, Hydrotite® expands when exposed to water, creating an effective compression seal within joints where limited movement will occur.

Sika® Swellstop™ is comprised of bentonite clay and butyl rubber. It is a hydrophilic waterproofing material that expands upon contact with water to form a compression seal in non-working joints. Swellstop™ is available in three sizes and must be used in conjunction with **Swellstop™ Primer Adhesive**.

SikaFuko® VT injection hose is the world's number one injection hose system. SikaFuko® VT is available in two sizes that can delivery our specially formulated 306 or 215 injection resins along with Portland cement, microfine cement or a wide variety of other injectable materials to seal cracks or voids in the joint area.

The sale of all Sika products are subject to the following Limited Warranty:
LIMITED MATERIAL WARRANTY
Sika warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**
Our most current General Sales Conditions shall apply. Please consult the Product Data Sheets prior to any use and processing.

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ISO 9001: 2015 W/DESIGN
CERT# 17.318.1

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