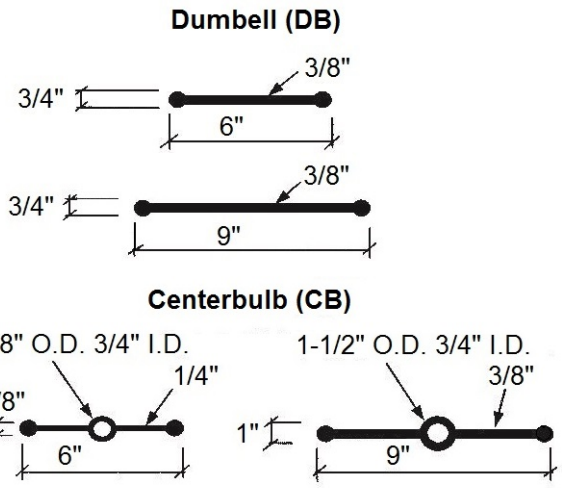
# TECH DATA

# Everlastic®
# SBR/Neoprene Rubber Waterstop




**1. Product Name**
**Williams SBR Hi-Tensile Rubber Waterstop**
**Williams Neoprene Hi-Tensile Waterstop**

**2. Manufacturer**
Williams Products, Inc.
1750 Maplelawn Drive
Troy, MI 48084
PH (248) 643-6400
Toll Free (800) 521-9594
FX (248) 643-7117

**3. Product Specifications**
**SBR** meets U.S. Corps of Engineers Spec. CRD-C513-71.
**Neoprene** provides added resistance to ozone, sewage, oils, and solvents and meets CRD-C513-74. Contains 100% Neoprene Polymer.

**4. Product Description**
Basic Use: A waterstop is usually a section of flexible waterproof material placed at any joint in concrete to prevent the passage of water. **Williams Products, Inc.** has been a pioneer supplier to constructors with the **Williams Everlastic Waterstop System** since 1954. Joints in concreate structure, on one side of which is subject to hydrostatic load, are generally provided with waterstops bridging joints and embedded in concrete joints to close and open, the waterstop must be designed to accommodate itself to movement. The primary reason for specifying **Rubber Waterstops** rather than metal or PVC is their superior performance in withstanding shear movements and to resisting hydrostatic pressure.
**Rubber Waterstops** will elongate over four times original size **(ASTM D412)** and will continue returning to near original shape after repeated movement. They have very low compression set and perform well at low temperatures.
The Williams System features sleeve type fittings that provide fast positive splicing and precise waterstop alignment. Fittings are manufactured from the same elastomers/polymers as the waterstop.

| Physical Property | ASTM Test Method | Williams Spec. 2010 Hi-Tensile (SBR) Styrene Butdiene | Williams Spec. 1025 Hi-Tensile Neoprene |
|---|---|---|---|
| Tensile Strength, min (PSI) | ASTM D412 | 2000min | 2000min |
| Ultimate Elongation, min (%) | ASTM D412 | 360min | 360min |
| Hardness, Shore A durometer | ASTM D2240 | 60-70 | 60-70 |
| Tensile Stress, min (PSI) to produce 300% elongation | ASTM D412 | 1150 | 1150 |
| Water Absorption, max (%) by weight after immersion 7 days at 73.4 F +/- 2 F | ASTM D471 | 5 | 5 |
| Compression Set, max (%) after 22 hours at 158 F | ASTM D395 Method B | 30 | 30 |
| Tensile Strength after aging, min (%) of original after 7 days in air at 158 F +/- 2 F, and 300 PSI | ASTM D572 | 80 | 80 |
| Specific Gravity | ASTM D1817 | 1.17 +/- 0.03 | 1.17 +/- 0.03 |
| Ozone Cracking Resistance after 20% elongation for 7 days 0.5p/m at 38 C (neoprene 3 p/m) | ASTM D1149 | No Cracks | No Cracks |
| Tensile set, % max after 200% elongation for 10 min at 23 C +/- 1 C | ASTM D412 | 5 | 5 |

Bureau of Reclamation 3000PSI Tensile Strength available

**5. Typical Installations Include:**
Sewer plants, water filtration plants, aqueducts, reservoirs, locks, tanks, channels, swimming pools, culverts, tunnels, underpasses, bridge decks and abutments, roofs, dams, foundations, mine shafts, retaining walls, and any concrete structure requiring watertight joints.

**6.Limitations:**
The Dumbell Waterstop is adequate for all vertical and horizontal stress across the joint in the same plane as waterstop.
6" Dumbell Waterstop is adequate for all vertical and horizontal construction joints and is used on expansion joints up to 1".
9" Dumbell is used in expansion joints of 1" to 2". 6" Centerbulb is used in expansion joints up to 1" where shear movement is expected and 9" Centerbulb is used in expansion joints up to 2" where shear movement is expected.
The Centerbulb is hollow so it can deform to absorb shear movement.

**7. Composition and Materials:**
SBR (Styrene Butadiene Rubber) is the industry standard and used in most applications. Neoprene rubber is more expensive and is used where hostile environmental conditions are present and the waterstop is exposed to continuous heavy concentrations of oil, gasoline, sewage, ozone, ulta-violet rays, or injurious chemicals. Special situations may require special materials and designs. These are available from Williams Products, Inc.

**8. Applicable Standards:**
Williams SBR Hi-Tensile Rubber Waterstop Meets Williams Products, Inc. specification 2010 and exceeds U.S. Army Corps of Engineers specification CRD-C513-71 (complete). Williams Neoprene Hi-Tensile Waterstop meets specifications CRD-C513-74 (less ozone),and contains 100% neoprene polymer. Waterstops and fittings are manufactured in accordance with Rubber Manufacturers Associations Standards: Nuclear Standards. Williams Products Waterstops conform to the quality material and conditions of service (seismic movement, hydrostatic head, and radiation dosage) standards set forth by the U.S. Atomic Energy Commission, Nuclear Regulatory Commission, and the Nuclear Power Plant Contractors.

**9. Technical Data:**
See materials chart on page 1

**Williams Hi-Tensile Rubber Waterstop Table**
**Standard Stock Items**

| Product No. | Type | Material |
|---|---|---|
| 3066-3 | 6" Dumbell | SBR |
| 3327-3 | 6" Dumbell | Neoprene |
| 3096-3 | 9" Dumbell | SBR |
| 3416-3 | 9" Dumbell | Neoprene |
| 3699-3 | 6" Centerbulb | SBR |
| 3388-3 | 6" Centerbulb | Neoprene |
| 3299-3 | 9" Centerbulb | SBR |
| 3225-3 | 9" Centerbulb | Neoprene |

**Fittings Selection Table**
**Standard Stock Items**

| Specify Hi-Tensile SBR or Hi-Tensile Neoprene | | | | |
|---|---|---|---|---|
| Type | SIZE | | | |
| | 6" DB | 9" DB | 6" CB | 9" CB |
| Union | 6DB-U | 9DB-U | 6CB-U | 9CB-U |
| Vertical Ell | 6DB-VE | 9DB-VE | 6CB-VE | 9CB-VE |
| Vertical Tee | 6DB-VT | 9DB-VT | 6CB-VT | 9CB-VT |
| Flat Ell | 6DB-FE | 9DB-FE | 6CB-FE | 9CB-FE |
| Flat Tee | 6DB-FT | 6DB-FT | 6CB-FT | 9CB-FT |
| Flat Cross | 6DB-FC | 6DB-FC | 6CB-FC | 9CB-FC |

**10. Installation:**
Waterstop is joined with Williams Sleeve Type Fittings and Williams No. 37 "A" Adhesive. First cut the waterstop ends square. Brush Williams No. 37 "A" Adhesive onto cleaned, buffed surface of the waterstop and fitting, assemble, hold in place, allow to dry.
Installation of waterstop involves split forms. In the pour the waterstop is held in place with blocks, or other suitable arrangements, on the outside of the split form (away from the concrete which is poured).
After the first pour has set up the split forms and blocks are removed. When the adjoining pour is made, care should be taken to support the waterstop.

**11. Warranty:**
Williams Products, Inc. will replace any unused waterstop materials which prove defective in workmanship or material within one year from the date of delivery to buyer. Because we cannot anticipate or control the many different conditions under which this information and our products may be used, we do not guarantee the applicability or the accuracy of this information or the suitability of our products in any given situation. Users of our products should make their own tests to determine the suitability of each such product for their particular purposes. The products discussed are sold without warranty, either expressed or implied, and the buyer assumes all responsibility for the loss or damage arising from the handling and use of our products, whether done in accordance with directions or not. Also, statements concerning the possible use or our products in the infringement of any patent.