



# Williams Products, Inc

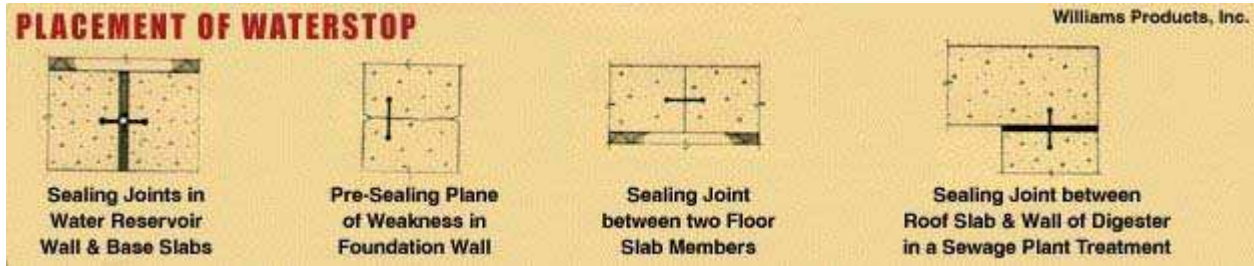
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## Williams SBR Hi-Tensile Rubber Waterstop Williams Neoprene Hi-Tensile Rubber Waterstop



**Compounds:** Neoprene, Styrene-Butadiene-Rubber (SBR), Special Compounds Also Available

**Sizes (widths):** 6", 9" & 12" Profiles, Dumbbell (DB), Centerbulb (CB),

**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 concrete structures, one side of which is subject to hydrostatic load, are generally provided with Waterstops bridging the joints and embedded in the concrete on either side. In concrete joints where expansion and contraction cause the 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 resisting hydrostatic pressure.

Rubber Waterstops will have ultimate elongation of 450% (ASTM D 412-75) 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.

Typical installations include: sewerage plants, water filtration plants, aqueducts, reservoirs, locks, tanks, channels, swimming pools, culverts, tunnels, under-passes, bridge decks and abutments, roofs, dams, foundations, mine shafts, retaining walls and any concrete structure requiring watertight joints.

**Limitations:** The dumbbell design is intended to be used where there is primarily horizontal stress across the joint in the same plane as the waterstop. 6" Dumbbell waterstop is adequate for all vertical and horizontal construction joints. 6" Dumbbell is also used in expansion joints of up to 1". 9" and 12" Dumbbell 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 movements.

Split Waterstops are used for short straight runs only. When Split Waterstops are spread against forms, connecting unions and corner fitting cannot be used.

**Composition and Materials:** SBR (Styrene Butadiene Rubber) is the industry standard and is 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, sewerage, ozone, ultra-violet rays or injurious chemicals. Special situations may require special materials and designs. These are available from Williams Products, Inc.

**Applicable Standards:** Williams SBR Hi-Tensile Rubber Waterstop meets Williams Products, Inc, specification 2010 and exceeds U.S. Army Corps of Engineers specifications CRD-C 513-71 (complete) and CRD-C 513-74 (less ozone).

Williams Neoprene Hi-Tensile Rubber Waterstop meets Williams Products, Inc. specification 1025, exceeds U S. Army Corps of Engineers specification CRD-C: 513-74 and contains 100% neoprene polymer. Waterstops and fittings are manufactured in accordance with the Rubber Manufacturers Association Standards.

**Nuclear Standards:** Williams produces waterstops that 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. Williams SBR Hi-Tensile Rubber Waterstops are currently being installed at numerous nuclear power plants world wide.

**Installation:** Waterstop is joined with Williams Sleeve Type Fittings and Williams No. 37 Adhesive. First, cut the waterstop ends square. Brush Williams No. 37 adhesive onto cleaned, butted surface of the waterstop and fitting, assemble, hold in place, allow to dry.

Installation of Waterstop involves split forms. In the first 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 to be poured).

After the first pour has set up, the split forms and block are removed. When the adjoining pour is made, care should be taken to support the waterstop.



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