Concrete structures are only as watertight as the waterstops that join them. Greenstreak waterstops stop leaks before they start...
in the joints of concrete structures.

Since 1950, Greenstreak has served the general and architectural concrete construction industry. Innovation, engineering and
quality craftsmanship combined to produce products of choice for the industry's owners, designers and contractors.

Greenstreak maintains its position of industry leadership by responding to the unique needs of our customers. Greenstreak's
dedicated technical and customer service staffs are active participants in the concrete industry to take advantage of the
latest technological advances, communicate with our market and analyze

central

Centrally located, Greenstreak products are readily available through a dedicated network of Concrete Forming and Accessory Distributors both nationally and internationally.

Typical Structures Requiring Waterstops Include:
- Water and waste water treatment facilities
- Primary and secondary containment structures
- Tunnels and culverts
- Dams, locks, canals, water reservoirs and aqueducts
- Pipe penetrations
- Swimming pools
- Storage tanks
- Retaining walls
- Foundations
- Slabs on grade

Hydroelectric and Flood Control Projects

Water and Waste Water Treatment Plants

Flexible solutions. Concrete performance.
WATERSTOP BASIC USE

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

SUGGESTED WATERSTOP DESIGN CHECKLIST

- Determine structure type
- Verify chemical containment requirements (if any)
- Verify hydrostatic head pressure requirements
- Determine joint type and joint movement requirements
- Verify joinery details of dissimilar or non-symmetrical waterstop profiles (consider using one profile throughout to simplify intersections)
- Specify ribbed profile for best water sealing performance
- Specify type and size (by product number, if possible)
- Specify factory fabrications of intersections and heat welded field butt joints
- Specify method for securing waterstop in position (hog rings, grommets, etc.)

PVC WATERSTOP

- The industry standard
- Broaderest design selection
- Formulated and compounded by Greenstreak
- Manufactured by Greenstreak from only prime resins and all virgin raw materials
- Great inherent elasticity
- Resistant to many waterborne chemicals
- Heat weldable
- Will not discolor concrete or produce electrolytic action
- Suitable for above or below grade applications

GREENSTREAK PVC Waterstop is available in two grades:
- Specification Grade (-40°F/-40°C)
  This is the most utilized grade for standard construction projects. PVC Specification Grade, the industry standard, is maintained in stock.

- Arctic Grade (-58°F/-50°C)
  PVC Waterstop is specially formulated to retain its physical properties and performance in excessively cold environments. Requirements available on order to meet:
  - Ontario Hydro Standard M-264-81
  - Canadian General Standards Board 41-GP-35M Type II

GREENSTREAK PVC Waterstop Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Typical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength</td>
<td>ASTM D-638</td>
<td>2000 PSI Min.</td>
</tr>
<tr>
<td>Ultimate Elongation</td>
<td>ASTM D-638</td>
<td>300% Min.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>ASTM D-792</td>
<td>1.39</td>
</tr>
<tr>
<td>Stiffness in flexure</td>
<td>ASTM D-747</td>
<td>600 PSI Min.</td>
</tr>
<tr>
<td>Hardness Shore A5</td>
<td>ASTM D-2240</td>
<td>80±3</td>
</tr>
<tr>
<td>Low temperature brittleness @-35°F</td>
<td>ASTM D-746</td>
<td>Pass</td>
</tr>
<tr>
<td>Water absorption</td>
<td>ASTM D-570</td>
<td>.15% Max.</td>
</tr>
<tr>
<td>Tensile strength After Accelerated extraction</td>
<td>CRD-C-572</td>
<td>1850 PSI Min.</td>
</tr>
<tr>
<td>Elongation After Accelerated extraction</td>
<td>CRD-C-572</td>
<td>300% Min.</td>
</tr>
<tr>
<td>Alkali Resistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- weight change</td>
<td>CRD-C-572</td>
<td>.20% Max.</td>
</tr>
<tr>
<td>- hardness change</td>
<td>CRD-C-572</td>
<td>2 Pts. Max.</td>
</tr>
<tr>
<td>Tear resistance</td>
<td>&quot;D624</td>
<td>395 lb./in.</td>
</tr>
</tbody>
</table>

Independent laboratory tests are available for the following applicable standards:
- Corps of Engineers CRD-C572-74
- Bureau of Reclamation C902

SBR AND NEOPRENE RUBBER WATERSTOPS

Greenstreak offers SBR and Neoprene waterstops for applications requiring the physical properties of rubber.

Greenstreak Rubber Waterstop Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>ASTM Test Method</th>
<th>Styrene Butadiene (SBR)</th>
<th>High Tensile Neoprene*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultimate Tensile Strength</td>
<td>D 412</td>
<td>2,500</td>
<td>2,500</td>
</tr>
<tr>
<td>Ultimate Elongation</td>
<td>D 412</td>
<td>1,150</td>
<td>1,150</td>
</tr>
<tr>
<td>Elastic Modulus</td>
<td>D412</td>
<td>450</td>
<td>450</td>
</tr>
<tr>
<td>Density</td>
<td>D2240</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Water Absortion, 7 Days at 70°C % Weight Change (% max)</td>
<td>CRD-C575</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Compression Set, 22 hr. @ 70°C % of Original Deflection (max)</td>
<td>D395</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Accelerated Aging, 96 hrs. @ 70°C % of Tensile Strength before aging (min)</td>
<td>D572</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Accelerated Aging, 96 hrs. @ 70°C % of Elongation before aging (min)</td>
<td>D572</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Ozone Resistance, 7 Days at 50PPHM @ 38°C, 20% Elong.</td>
<td>D1149</td>
<td>No Cracks</td>
<td>No Cracks</td>
</tr>
</tbody>
</table>

*Provides maximum resistance to ozone, sewage, oil and solvents.
SWELLSTOP™ WATERSTOP

A flexible butyl rubber and swellable clay waterproofing compound that swells upon contact with water to form a long lasting compression seal in non-moving concrete joints. Swellstop requires a 2” minimum clear coverage from the face of the concrete.

Types of Concrete Joints

Contraction (Control) Joint
Contraction joints are designed planes of weakness to control the location of cracks due to shrinkage of concrete.

Expansion (Isolation) Joint
Expansion joints separate or isolate abutting concrete structures (walls, slabs, footings, columns) protecting them from compressive stresses that may develop due to thermal expansion, settlement, creep, live load deflections, drying shrinkage or crush. Differential movement at these joints can be both lateral and transverse.

Construction Joint
Construction joints are determined by interruptions in the placement of concrete.

Waterstop Applications

Grout ribs stop the loss of fines at split bulkhead (end shutter)
Eyelets on 30 cm centers each side. Eyelets off-set side to side for easy wire tie to reinforcing. “Sure Form”

External for construction joint
Internal for construction joint
External for expansion joint
Internal for expansion joint
External for wall-to-slab
External for slab-wall
Internal for contraction joint
External with crack inducer for contraction joint

MATERIAL TYPE AND DESIGN SELECTION
**“SURE-FORM” PVC Waterstops**

**Internal Style:** Brass reinforced eyelets for easy wire tie to reinforcing bars.

**External Style:** Easy nail-in-place with special two-headed nail — or — lay on grade.

---

**FOR EXPANSION JOINTS**

<table>
<thead>
<tr>
<th>Style</th>
<th>STD. WT</th>
<th>HEAD PRESS.</th>
<th>(\text{Kg}/20 \text{ LM ROLL})</th>
</tr>
</thead>
<tbody>
<tr>
<td>951</td>
<td>31.44</td>
<td>224 KPa</td>
<td></td>
</tr>
<tr>
<td>952</td>
<td>39.45</td>
<td>373 KPa</td>
<td></td>
</tr>
<tr>
<td>953</td>
<td>42.16</td>
<td>373 KPa</td>
<td></td>
</tr>
<tr>
<td>954</td>
<td>63.85</td>
<td>373 KPa</td>
<td></td>
</tr>
</tbody>
</table>

**FOR CONSTRUCTION/CONTRACTION JOINTS**

<table>
<thead>
<tr>
<th>Style</th>
<th>STD. WT</th>
<th>HEAD PRESS.</th>
<th>(\text{Kg}/20 \text{ LM ROLL})</th>
</tr>
</thead>
<tbody>
<tr>
<td>955</td>
<td>30.12</td>
<td>224 KPa</td>
<td></td>
</tr>
<tr>
<td>956</td>
<td>39.20</td>
<td>373 KPa</td>
<td></td>
</tr>
<tr>
<td>957</td>
<td>41.56</td>
<td>448 KPa</td>
<td></td>
</tr>
<tr>
<td>958</td>
<td>61.49</td>
<td>597 KPa</td>
<td></td>
</tr>
</tbody>
</table>

---

Note: All dimensions in (mm) and dimensions are nominal and subject to manufacturing tolerances.

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**SURE-FORM** PVC Waterstops

Internal Style: Brass reinforced eyelets for easy wire tie to reinforcing bars.

External Style: Easy nail-in-place with special two-headed nail — or — lay on grade.

---

Note: All dimensions in (mm) and dimensions are nominal and subject to manufacturing tolerances.
Additional PVC Waterstops

Note: GREENSTREAK manufactures over 100 waterstop profiles in addition to those illustrated in this catalog. If you do not see a profile for your application, contact us. All dimensions in (mm) and dimensions are nominal and subject to manufacturing tolerances.
**RUBBER SHAPES**

### Neoprene Rubber

- **918**
  - STD WT: 1.51 lbs/ft  2.25 Kg/m
  - Dimensions: 9.5mm ID & 19mm OD

- **919**
  - STD WT: 2.20 lbs/ft  3.27 Kg/m
  - Dimensions: 9.5mm ID & 228.6mm OD

- **920**
  - STD WT: 1.22 lbs/ft  1.82 Kg/m
  - Dimensions: 15.9mm ID & 25mm OD

- **921**
  - STD WT: 2.90 lbs/ft  4.32 Kg/m
  - Dimensions: 9.5mm ID & 38.1mm OD

### Styrene Butadiene Rubber (SBR)

- **902**
  - STD WT: 1.30 lbs/ft  1.93 Kg/m
  - Dimensions: 9.5mm ID & 19mm OD

- **903**
  - STD WT: 1.90 lbs/ft  2.83 Kg/m
  - Dimensions: 9.5mm ID & 228.6mm OD

- **904**
  - STD WT: 1.05 lbs/ft  1.55 Kg/m
  - Dimensions: 15.9mm ID & 25mm OD

- **906**
  - STD WT: 2.50 lbs/ft  3.70 Kg/m
  - Dimensions: 9.5mm ID & 38.1mm OD

**Note:** All dimensions in (mm) and dimensions are nominal and subject to manufacturing tolerances.

### PVC FABRICATIONS

#### Factory Fabricated Waterstop Intersections

PVC waterstop splices, directional changes and intersections are critical components of a quality installation. Specifications requiring factory made fabrications are strongly recommended. Greenstreak can provide homogenous directional changes and intersections, leaving only the less difficult straight splices to be welded in the field.

#### Field Splicing Irons

- Easy to use for straight butt joint splicing
- Accommodates small and large size waterstops
- Teflon Pad prevents sticking
- Lightweight, easy to use
- Thermostatically controlled
- 110 VAC. (220 VAC. optional)
- Peel and stick covers (replaceable)

#### Rubber Unions (Vertical and Flat)

- Vertical “T”
  - Dimensions: 152mm heating bar
  - #297

- Vertical “X”
  - Dimensions: 102mm heating bar
  - #213

- Vertical “L”
  - Dimensions: 25mm heating bar
  - #214

**Note:** Adhesive available for bonding rubber intersections (unions).

---

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**Note:** All dimensions in (mm) and dimensions are nominal and subject to manufacturing tolerances.
Sheet Drains

Basic Use: GREENSTREAK® Drainage Systems are lightweight, one sided planar drains. Geocomposite Sheet Drain enhances waterproofing systems by reducing hydrostatic head pressure on subgrade or retaining wall structures. Geocomposite Deck Drain provides horizontal planar drainage for storm water control under pavers.

Advantages

- Reduces hydrostatic pressure and loads
- Reduces deadload on horizontal decks by replacing aggregate
- Eliminates drainage aggregate stockpiles on tight job sites
- Minimizes freeze-thaw damage
- Lightweight and easy to install
- More economical than aggregate
- Enhances waterproofing systems
- Protection board for membrane waterproofing
- Easy to ship, transport and store

Deck Drain

DECK DRAIN, .43 in. (10.92mm) thick with 1 in. (25.4mm), center-to-center peg spacing, is designed for horizontal applications with exceptional flow and high compressive strength requirements. DECK DRAIN is a sturdy product that withstands rough handling and abrasion due to thermal expansion and contraction of deck materials. DECK DRAIN may also be used for vertical applications where soil conditions dictate a more open filter fabric.

Form Release 7000

Form Release 7000 is specially formulated to prevent concrete from bonding to aluminum, steel, plywood and plastic forms and form liners. Form Release 7000 should be used with all reusable Greenstreak Form Liners.

Advantages

- Will not stain gray or white concrete
- Will not impair bonding ability of paints, epoxies or other coatings
- Rust inhibitors help prevent stains in concrete and deterioration of forms
- Minimizes form clean-up
- Lengthens life of wooden forms

Coverage

- plywood, concrete...1000-1500 ft²/gal.
- Rough sawn, dimensional, striated plywood...800-1000 ft²/gal.

Technical

- Consists of fatty wood derivatives in a light amber clear hydrocarbon carrier
- Contains no lubricating oil, diesel oil, conventional form oil or kerosene
- Red label not required
Architectural Concrete
FORM LINERS

Form Follows Function

Greenstreak® Architectural Concrete Form Liners make it easy to pour interesting detail into a structure...without pouring in a lot of money.

Greenstreak Form liners are available in several grades and are ideal for texturing tilt-up, cast-in-place and precast concrete.

Greenstreak Form Liners are attached to the forming system or casting bed prior to concrete placement. After normal placement and curing time, the form work and liner are stripped, leaving an architectural finish in the concrete.

Just a few Greenstreak patterns are shown in this catalog. Call Greenstreak for additional pattern details or if you would like us to create a custom pattern or design.

LIMITED WARRANTY: GREENSTREAK® warrants to the Buyer that this product 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 GREENSTREAK®’s recommendations; and,

Second, the Buyer has selected the proper product for the specific application required. GREENSTREAK® disclaims any responsibility for the selection of a particular waterstop product. Product selection is the sole responsibility and decision of the Buyer. The suitability of any material for a specific application requiring fluid resistance is best determined by specific testing for the application. GREENSTREAK® urges the Buyer to conduct its own site application testing.

Any information supplied by GREENSTREAK® with respect to its products is believed to be correct. GREENSTREAK® makes no representations or warranties, express or implied, as to the accuracy or completeness of such information or the use of such information for a particular purpose. GREENSTREAK® has not performed any tests. Any test data has been prepared by independent commercial laboratories.

Because GREENSTREAK® has no control over either the application or the selection of its products, GREENSTREAK®’s Limited Warranty is as follows:

The exclusive remedies of the Buyer and the limit of the liability of GREENSTREAK® from any and all losses or damages resulting from the use of this product (including claims based on contract, negligence, strict liability, or otherwise) shall be either the full refund of the purchase price to Buyer of this product or the replacement of the quantity of product purchased by the Buyer – at the election of GREENSTREAK®. In no event shall GREENSTREAK® be liable for any incidental or consequential damages. The Buyer and all users of this product are deemed to have accepted the terms of this Limited Warranty which may not be varied in any way by any verbal or written agreement.

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Phone: 800. 325-9504 or 636. 225-9400 • Fax: 800. 551-5145 or 636. 225-9854
www.Greenstreak.com email: info@greenstreak.com