Greenstreak

BUILDING TRUST

PVC & HYDROTITE WATERSTOP MASTER SPECIFICATION

SUGGESTED MASTER SPECIFICATION

SECTION 03 15 13 WATERSTOPS
(SIKA HYDROTITE IN NON-MOVING JOINTS AND SIKA GREENSTREAK PVC WATERSTOP IN EXPANSION JOINTS)

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Provision of waterstops embedded in concrete and spanning control, expansion, and/or construction joints to create a continuous diaphragm to prevent liquid migration.

B. Non-metallic waterstops for use in concrete joints subjected to chlorinated water, seawater, and many waterborne chemicals.

1.02 REFERENCES

A. PVC WATERSTOP

1. Corps of Engineers: CRD-C 572-74
2. American Society for Testing Materials (ASTM)
3. Bureau of Reclamation: C-902
4. Canadian General Standards Board: 41-GP-35M Types 1 & 3

B. HYDROPHILIC WATERSTOP

1. American Society for Testing Materials (ASTM)

1.03 DELIVERY, STORAGE, AND HANDLING

A. Store waterstops under a tarp to protect from oil, dirt, sunlight, and premature exposure to water.

PART 2 PRODUCTS

2.01 PVC WATERSTOPS FOR EXPANSION JOINTS

A. Provide flexible PVC (polyvinyl chloride) waterstop as manufactured by Sika, profile style number (fill in profile style number).

B. The PVC waterstop shall be extruded from an elastomeric plastic material of which the basic resin is prime virgin polyvinyl chloride. The PVC compound shall not contain any scrapped or reclaimed material or pigment.

C. Performance requirements as follows:

PROPERTY	TEST METHOD	REQUIRED LIMITS
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	No Failure @ -35° F (-37° C)
Stiffness in Flexure	ASTM D747	1000 psi min.
Specific Gravity	ASTM D792	1.38 max.
Hardness, Shore A	ASTM D2240	79 ±3
Tensile Strength after accelerated extraction	CRD-C 572	1600 psi min.
Elongation after accelerated extraction	CRD-C 572	300% min.
Effect of Alkalies after 7 days: Weight Change Hardness Change	CRD-C 572	Between -0.10% / +0.25% +/- 5 points

2.02 HYDROPHILIC WATERSTOP FOR NON-MOVING CONTRACTION AND CONSTRUCTION JOINTS

A. Provide Sika Hydrotite hydrophilic rubber waterstop as supplied by Sika, profile style number (fill in profile style number).
B. The waterstop shall be a combination of chloroprene rubber and chloroprene rubber modified to impart hydrophilic properties.
C. The waterstop shall have a delay coating to inhibit initial expansion due to moisture present in fresh concrete.
D. Performance Requirements as follows:

Chloroprene Rubber

Property	Test Method	Required Limits
Tensile Strength	ASTM D412	1300 psi min.
Ultimate Elongation	ASTM D412	400% min.
Hardness (Shore A)	ASTM D2240	50 +/- 5
Tear Resistance	ASTM D624	100 lb/inch min.

Modified Chloroprene (Hydrophilic) Rubber

Property	Test Method	Required Limits
Tensile Strength	ASTM D412	350 psi min.
Ultimate Elongation	ASTM D412	600% min.
Hardness (Shore A)	ASTM D2240	52 +/- 5
Tear Resistance	ASTM D624	50 lb/inch
Expansion Ratio	Volumetric Change - Distilled Water @ 70° F	3 to 1 min.

2.03 ACCESSORIES

A. Sika Greenstreak PVC Waterstops

1. Provide factory made waterstop fabrications for all changes of direction, intersections, and transitions leaving only straight butt joint splices for the field.
2. Provide grommets, pre-punched holes, or hog rings (installed by others) spaced at 12 inches on center along length of waterstop.
3. Provide Teflon coated thermostatically controlled waterstop splicing irons for field butt splices.

B. Sika Hydrotite Hydrophilic Waterstops

1. Provide Sika Hydrotite Adhesive to secure waterstop to smooth, dry concrete.
2. Provide Sika Greenstreak Epoxy 7300 two component epoxy gel to secure Hydrotite to rough, wet (or dry) concrete.
3. Provide Leakmaster single component hydrophilic sealant to secure Hydrotite to rough, dry concrete.
4. Provide cyanoacrylate adhesive (super glue) for all waterstop splices.
5. Provide Leakmaster in addition to cyanoacrylate adhesive at all splices for added protection (optional).

PART 3 EXECUTION

3.01 INSTALLATION

A. Sika Greenstreak PVC Waterstop

1. Field butt splices shall be heat fused welded using a Teflon covered thermostatically controlled waterstop splicing iron at approximately 380 degrees F. Follow manufacturer's recommendations.
2. Lapping of waterstop, use of adhesives, or solvents shall not be allowed.
3. Center waterstop in joint and secure waterstop in correct position using grommets, pre-punched holes, or hog rings (installed by others) spaced at 12" on centers along the length of the waterstop and wire tie to adjacent reinforcing steel.

B. Sika Hydrotite Hydrophilic Waterstop

1. Cut coil ends square (or at proper angle for mitered corners) with shears or sharp blade to fit splices together without overlaps.
2. Splices shall be sealed using cyanoacrylate adhesive (super glue) and Leakmaster (Leakmaster is optional).
3. Seal any exposed end cells of Hydrotite using Leakmaster to ensure watertightness.
4. Follow approved manufacturer recommendations.

C. Hydrophilic and PVC Intersections

1. Maintain continuity of waterstops at all intersections and transitions.
2. Intersections between PVC waterstop and Sika Hydrotite waterstop shall be sealed using Leakmaster.
3. Follow approved manufacturer recommendations.

END OF SECTION

Sika Corporation - US
201 Polito Avenue
Lyndhurst, NJ 07071
United States
Usa.Sika.com

For More Information Contact
Sika - St. Louis Sales Office
3400 Tree Court Industrial Blvd.
63122, St. Louis, MO
United States
www.USA.Sika.com
Phone: 1-800-325-9504
Fax: 800-551-5145