

SECTION 03150 — WATERSTOPS FOR CONCRETE JOINTS — rev. 07/24/09
******* MasterFormat™ 2004 — Section 03 15 13 *******

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Earth Shield® Type 20 and Type 23 Hydrophilic Applied Strip Waterstops

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Swellable (hydrophilic) strip waterstop embedded continuously along concrete non-moving construction joints creating a continuous barrier to water migration.

1.02 REFERENCES

- A. ASTM – American Society of Testing and Materials

1.03 SUBMITTALS

- A. Product Data to substantiate compliance with specifications.
- B. Shop Drawings: Show construction joint types, layout, and location.
- C. Material sample representative of waterstop to be used on job, full profile 4 inches (50 mm) long, clearly labeled with manufacturer's name and product identification.
- D. Certification to hydrostatic pressure resistance of not less than 100 psi.
- E. MSDS on waterstop strip primer adhesive.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in factory sealed and labeled packaging.
- B. Store waterstop in factory package to protect from oil, dirt, and prolonged ultraviolet exposure.
- C. Store waterstop under cover to protect from moisture that may cause premature waterstop swelling.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Provide products manufactured by JP Specialties, Inc. / Earth Shield® – 551 Birch Street, Lake Elsinore, CA 92530; Phone 800-821-3859; International 951-674-6869; Fax 951-674-1315; Web www.jp-specialties.com

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2.02 WATERSTOP MATERIAL

- A. Swellable Strip Waterstops: Earth Shield "TYPE 20"; strips composed of butyl rubber and mastic; one inch (25 mm) by 3/4 inch (19 mm) by 16 foot-8 inch (5.07 meters) roll.
- B. Swellable Strip Waterstops: Earth Shield "TYPE 23"; strips composed of butyl rubber and mastic; 3/8 inch (9.5 mm) by 3/4 inch (19 mm) by 25 foot (7.62 meter) roll.
 - 1. Properties:
 - a. Specific gravity — ASTM D71: 1.35
 - b. Hydrocarbon content — ASTM D4: 47%
 - c. Volatile matter — ASTM D6: 1%
 - d. Penetration cone in accordance with ASTM D217 at 77 degrees F (25 degrees C): 40 mm
 - f. Service temperature range: -30 to 180 degrees F (-34 to 82 degrees C)
- C. Accessories:
 - 1. Adhesive: "Type 20 & 23 Primer Adhesive" solvent-based, for securing waterstop to horizontal and vertical substrates.
 - 2. Concrete cut nails for securing waterstop to vertical joint face.

PART 3 EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Ensure steel reinforcing bars do not interfere with proper position of waterstop.
- B. Protect waterstops during progress of work.
- C. Clean joints of dirt and construction debris.

3.02 APPLICATION OF PRIMER ADHESIVE

- A. Remove loose particles and dirt and apply primer adhesive to 24-hour cured and dry concrete surface.
- B. Brush apply one coat of primer adhesive two inches wide continuously along joint.
- C. Allow primer adhesive to cure (per directions on can) prior to application of waterstop.

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3.03 INSTALLATION

- A. Position waterstop on joint as indicated on Drawings with a minimum of 2 inches (51 mm) concrete coverage on all sides.
- B. Press strip waterstop firmly and continuously in place over primed area on first concrete pour.
- C. Butt ends of strip coil. Press ends together to ensure no separation and no air pockets. Place in maximum practical lengths to minimize splicing. Cut coil ends square with sharp blade to fit splices together without overlaps.
- D. When necessary on vertical, damp, or green concrete, fasten waterstop strip mechanically starting 1 inch (25 mm) from each coil end and proceeding 10 inches (250 mm) on center along length.
- E. Notify Engineer/Architect 24 hours prior to placement of concrete at waterstops.
- F. Immediately prior to placing second pour, inspect waterstop for damage, discontinuity, premature swelling, and debris contamination. Replace damaged waterstop. Remove unacceptable waterstop from site and dispose of defective material in accordance with local regulations.
- G. Remove the separation paper from the strip waterstop immediately prior to second pour.
- H. Place concrete without displacing waterstop from position.
- I. Thoroughly and systematically vibrate concrete around waterstop to obtain impervious, void-free concrete in vicinity of joint and to maximize intimate contact between concrete and waterstop. Do not allow vibrator to contact the strip waterstop.

END OF SECTION