Earth Shield® Flexible PVC Technical Data Sheet (TDS)

Earth Shield® Polyvinyl Chloride (PVC) Waterstop Basic Use

Earth Shield® Polyvinyl Chloride (PVC) Waterstop is used as a fluid-tight diaphragm, embedded in concrete, across and along the joint, for environmental engineered concrete structures.

Earth Shield® Flexible PVC Waterstops are resistant to a wide range of water and wastewater treatment chemicals and are certified to meet or exceed the performance requirements of CRD C572-74.

Typical Applications

- *Water treatment plants*
- *Wastewater treatment plants*
- *Dams*
- *Locks and canals*
- *Tunnels and culverts*
- *Foundations*

Earth Shield® Advantages

- *Outstanding fluid resistance to a wide range of aqueous-based water and waste water treatment chemicals*
- *Meets ACI 350 "Code Requirements for Environmental Engineering Concrete Structures"*
- *CRD C572-74 compliant*

Installation

Install Earth Shield® Flexible PVC Waterstop in all concrete joints. Waterstop should be centered in, and run the extent of the joint. All changes of directions should be prefabricated, leaving only butt-welding for the field. If installing in an expansion joint, keep center bulb unembedded to allow it to accommodate movement as designed. Use optional factory installed brass eyelets (or #3 hog rings) and tie wire to secure waterstop to reinforcing steel to avoid displacement during the concrete pour. Splice straight lengths of waterstop and Shop Made Fittings to straight lengths, with an ST-10® In-Line Waterstop Splicer with the iron temperature set to 350°F to 380°F. More detailed installation instructions are in our Standard 3-part Specifications.

Suggested Proprietary Short Form Guide Specification Section 03150 (Master Format 2004 — 03 15 13)

Flexible PVC Waterstop

Waterstop indicated in drawings and specifications for contraction (control), expansion and construction joints shall be Earth Shield® Polyvinyl Chloride (PVC) Waterstop Part No. #### [Designer insert appropriate part number here] as manufactured by J P Specialties, Inc.; Murrieta, CA 92562; Phone 951-763-7077

1. *Flexible Polyvinyl Chloride (PVC) Waterstop shall be manufactured with prime virgin resin.*
2. *Flexible Polyvinyl Chloride (PVC) Waterstop shall be independently certified for use in potable water per NSF/ANSI Standard 61. Third-party certified documentation to be provided by the manufacturer.*
3. *Flexible Polyvinyl Chloride (PVC) Waterstop shall be California Prop 65 compliant and contain no hazardous phthalates.*
4. *No equals or substitutions allowed.*

Property	Test Method	Required Results
Specific Gravity	ASTM D792	1.38 to 1.40
Shore A Hardness (15 sec.)	ASTM D2240	77±3 at 25°C (77°F)
Tensile Strength	ASTM D638	2,100 psi
Ultimate Elongation	ASTM D638	400%
Stiffness in Flexure	ASTM D747	700 psi
Tear Resistance	ASTM D624	320 lbs./inch
Brittle Point	ASTM D746	-37°C (-35°F)
Accelerated Extraction Tensile Strength	Corps of Engineers	2,005 psi
Accelerated Extraction Elongation	Corps of Engineers	390%
Effect of Alkali Weight Change	CRD C572-74	+0.11%
Effect of Alkali Hardness Change	CRD C572-74	-0.6 points
Drinking Water Safe	NSF/ANSI 61	Waterstop certified by NSF for use in potable water