

PRODUCT DESCRIPTION

PWS™ PVC Water-Stops are high grade poly vinyl chloride (PVC) resin extrusions that are plasticized and stabilized to offer long life performance in concrete structures against water leakages. PWS™ water-stops are used in executive and expansion joints of concrete structures because they have the greatest weakness against the penetration of water and liquids. The cross section configuration features a multi rib design for an effective grip and tenacious anchor to the concrete and a flexible, hollow center bulb to accommodate moderate expansion and contraction in the concrete. PWS™ water-stops are manufactured to meet the most stringent performance specifications and are resistant to abrasion and chemicals.

PRODUCT FEATURES

- Prevent corrosion
- Prevent water penetration
- Protection against chemical agents
- High speed installation and execution
- High tensile strength and elongation
- Heat weld-able
- High flexibility
- Nontoxic. Suitable for use in contact with potable water
- Prefabricated intersections

PRODUCT USES

PWS™ is used in many cases where the purpose is to prevent water leakage:

- Storage tank
- Retaining walls, basement and foundation
- Subway and tunnels
- Sewerage and waste water structure
- Treatment plants
- Swimming pools
- Dams and canals

TECHNICAL DATA

Property	Test Method	Values
Specific gravity	-	≥1.32
Shore A hardness	ASTM D-2240	80±5
Tensile Strength	BS 2782	>15N/mm ²
Elongation at break	BS 2782	≥300
Water absorption	ASTM D-570	<0.2
Chemical resistance	ASTM D-543	pH 2.5 to 11.5
Resistance to water pressure @5bar	BS EN 12390	No leakage
BS softness	BS 2782	40-50
Suitability with potable water	BS 6920	Passes (nontoxic)



PWS™ PVC Water-Stop

HOW TO USE

Fixing internally

Internal and centrally placed water-stops are positioned within the concrete where the centerline of the water-stop is aligned with the center of the joint. Such water-stops function as a watertight diaphragm wall against any water leakage. For a proper placement of the water-stop, split formwork is recommended when installing in slab-to-slab, slab-to-wall and wall-to-wall joints. The water-stop is then tied with wires through the eyelets provided at the end flanges to the reinforcement. This will ensure that the water-stop is firmly held in position and is not misaligned or fold during the concrete pour. One half of the water-stop has to be positioned within the first pour and the other half projecting into the second pour. A tight fit between the water-stop and the form is also necessary to prevent excessive leakage of concrete paste, which could lead to honeycombing of the concrete.

Fixing externally

The externally placed water-stop is installed prior to pouring of concrete. The external expansion joint profile is usually loosely laid on top of the compacted grade or mud slab. The stop end form works are then fixed on top of the water-stop. The water-stop can either be nailed or glued into position to avoid displacements during the concrete pour. The external construction joint profile is glued or nailed on to the vertical shutter. The water-stop is so positioned that only the ribbed side is embedded into the concrete.

Jointing

A fully continuous water stop network must be formed throughout. At bends and additional joints, factory welded junctions are to be used when jointing with the placed water stops. Field butt splices shall be heat fused welded using an appropriate welding knife of voltage ranging between 220- 240V (ideally with thermostatically controlled). The edge of the water stop shall be cut with a knife to get an even and sharp finish and aligned in a specially designed fixing jig. The edges will then be positioned in the jig in such a fashion that at least 25mm of water stop protrudes from the jig. Place the welding knife in between the two ends, and when the PVC starts melting (>140°C), beads will start forming around the section. remove the welding knife and press both the

ends firmly against each other to form a neat butt splice. Press the joints against each other for sometime till the PVC cools and forms a strong fusion welded joint.

Precautions

Concrete in and around the water-stop has to be properly compacted in order to ensure a full contact of the water-stop and a water tight seal.

Surface of the water-stop shall be cleaned of all dirt and cement laitance which can affect the water tight seal with the concrete.

The clearance between the water-stop and the reinforcement should be at least twice that of the maximum size of the aggregate. this will prevent the formation of voids and honeycomb around the water-stop.

The water-stop should not be punctured to allow a reinforcement to pass through the water-stop. Installed water-stops should be protected from UV. Prolonged exposure will make the PVC water-stop brittle.

SHEET SIZES

Thickness	Width	Length	Weight
4mm	250mm	15m	22.5kg
4mm	200mm	15m	19.5kg
4mm	150mm	15m	16.5kg
10mm	250mm	15m	49.5kg

STORAGE AND HANDLING

Store the material in a cool and shaded area. PWS™ is completely non-hazardous and nonflammable. But care should be taken while cutting and welding the joints. Hydrogen chloride vapors will be released during the hot welding, therefore the working area should be properly ventilated and all appropriate PPE gear shall be used.

MAINTENANCE

Protect from UV and high temperatures. Prolonged exposure to sunlight and harsh environment will result in deterioration of the product. Keep away from sharp edges to prevent damage.

DISCLAIMER OF LIABILITY

AFZIR, LLC warrants its products to be free from manufacturing defects. Buyer determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to replacement of product. Any claim for breach of this warranty must be brought within six months of the date of purchase.

AFZIR shall not be liable for any consequential or special damages of any kind, resulting from any claim or breach of warranty, breach of contract, negligence or any legal theory.

The Buyer, by accepting the products described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production.