

Since 1985

# Insuwrap

PVC WATERBARS

Concrete embedded PVC waters range

# انسوراب Insuwrap

## Uses

- Underground chambers.
- Retaining walls, dams, canals and ponds.
- Basements, tunnels, subways and culverts.
- Reservoirs, tanks and swimming pools.
- Strip and raft foundations.

## Product Description

Insuwrap PVC Waterbars water stops is a range of concrete embedded PVC profiles that stop water passage through tortuous path and positive valve seal mechanisms. The profiles are precisely engineered to block water passage in concrete joints. Insuwrap PVC Waterbars profiles are extruded from virgin non-recycled elastomeric polyvinyl chloride rubber. The profiles are designed for both internal fixation and external fixation with the internal sections having brass eyelets placed on the non effective sides of the sections to enable tying to steel reinforcement for efficient fixation during concrete pours. Heavy duty profiles are used where large sections or where concrete heights exceed 4 meters.

## Advantages

- Unique profile design with multiple ribs.
- Has no effect on the quality of potable water.
- Brass eyelets at 30cm spacing for more rigidity while concreting.
- Hollow center bulb for expansion joints to accommodate movement.
- Factory prefabricated junction pieces.
- Easy to join on site.
- Resistant to a wide range of diluted chemicals including hydrocarbons.
- Heavy duty sections with high inertia resisting bending during concrete pours.

## Standards Compliance

- ASTM D412-06a (2013).
- US Corps of Engineers CRD C 572.
- US Department of Agriculture Guidelines.
- BS2571-1990

## Design Criteria

PVC water stops choice follows the guidelines of EN BS8102:2009 and CIRIA report No. 139.

## Recommended Profiles

### Center Fixation:

- Insuwrap PVC Waterbars WS/CE : 250 mm wide centrally fixed with bulb for expansion joint.
- Insuwrap PVC Waterbars WS/CC : 250 mm wide centrally fixed profile for construction and contraction joints.
- Insuwrap PVC Waterbars WS/RE : 250 mm wide rear fixation for expansion joints.
- Insuwrap PVC Waterbars WS/RC : 250 mm wide rear fixation for construction and contraction joints.
- Insuwrap PVC Waterbars WS/HC : 250 mm wide centrally fixed heavy duty profile for construction and contraction joints.
- Insuwrap PVC Waterbars WS/HE : 250 mm wide centrally fixed heavy duty profile for expansion joints.

## Technical Data

Insuwrap PVC Waterbars range	Typical Values @ 25°C
Color	Blue
Tensile strength: CRD C572	> 14 MPa
Elongation After accelerated extraction: CRD C572	> 300 %
Shore A Hardness ASTM 2240-5 (2010)	80
Specific Gravity ASTM D792-13	1.4
Tear Resistance ASTM D624-00 (2012)	38 KN/m
Stiffness in Flexure ASTM D747-10	> 5 MPa
Maximum water head:	Up to 100 m



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## Usage Instructions

Insuwrap PVC Waterbars center fix profiles inside form-work should be tied by steel wires to the reinforcement through the eyelets in the edge flanges. Rear fixation profiles should be fixed before concreting with nails to the concrete blinding and vertical shutters through the edge flanges.

## Site Welding

The key to a leak free waterstop network is correct on-site jointing. Insuwrap PVC Waterbars range is made of thermoplastic PVC, and can be easily welded using suitable heating processes, such as welding knife. Cut the edges to be welded in a sharp and straight line then secure the ends in a welding jig. Use the welding knife between the ends, until an even, molten bead appears.

Remove the welding knife and press the ends firmly together. Consult Insuwrap technical departments for further details.

## Shelf Life & Storage

Insuwrap PVC Waterbars range has an unlimited shelf life provided it is stored clear of ground in a dry and shaded place below 35°C.

## Packaging

Product	Pack Size
Insuwrap PVC Waterbars 6 mm thick sections	12 Lm rolls
Insuwrap PVC Waterbars 10 mm thick sections	10 Lm rolls

## Health & Safety

Hot welding of PVC will generate acidic hydrogen chloride fumes, jointing should take place in a well ventilated area, or while wearing oxygen mask. Avoid breathing fumes. Wear a proper mask.

## Profiles



Normal Duty Center Fixation Profiles



Normal Duty Rear Fixation Profiles



Heavy Duty Rear Fixation Profiles