

MONNELI ELASTOJOINT PVC

Flexible PVC Waterstop

Product Description

Primarily composed of high grade quality Poly-Vinyl Chloride compound that are plasticized and stabilized in order to offer an extra-long life performance in concrete structures against water leakages. It is specially designed to serve as an integral sealing system for construction, contract and expansion joints in areas where water retention and water exclusion is required.

ELASTOJOINT PVC is manufactured to meet the most stringent performance specifications and is highly resistant to abrasion and chemicals.

Uses

ELASTOJOINT PVC provides an effective and thorough means of waterproofing for the following:

- Reservoirs
- Water towers and sewage tanks
- Dams and culverts
- Canals and spillways
- Swimming pools

ELASTOJOINT PVC serves also a powerful support to keep water out of concrete structure such as:

- Basements and underground car parks
- Tunnels and subways
- Retaining walls and roof decks

Advantages

- Has a variety of profile selections to satisfy on-site conditions
- High endurance for extreme water pressure
- Easy to install / simple on-site butt welding
- Reinforced eyeleted edge flanges for positive fixing

- Four valve sealing system on all profiles
- Exceptionally flexible even if exposed at adverse environmental condition
- High tensile strength and elongation ability
- Non-toxic and is suitable for use even in contact with portable water
- Can be used in hot as well as cold climates

Instructions for Use

Waterstops

All wall / floor waterstop connections shall be made using injection moulded transition pieces to ensure the continuity of the four bulb profiles as shown on the contract drawings.

Central Fixing

The centrally placed waterstop shall be a minimum of 250mm wide unless this exceeds the width of the wall in which case the waterstop profile shall be equal to or less than the width of the wall section. The waterstop shall have two ribs on the web either side of the centre bulb/shutter stop. The waterstop shall have reinforced eyelets for positive fixing located at the edge flanges so that they do not bend or wilt under the pressure of the concrete when it is poured.

External Fixing

The externally placed waterstop shall be a minimum of 250mm wide with two ribs on either side of the centre of the waterstop. The waterstop shall have an outer nailing flange and a central fin to act as a shutter stop. The surface shall be sound and clean prior to pouring concrete on the second half.

Welding

Waterstops used at expansion joints shall have an expansion bulb in the centre to accommodate the movements. At bends and additional joints, factory welded junctions are to be used when jointing with the placed waterstops. Field butt splices shall be heat fused using Teflon coated thermostatically controlled welding iron of 240V.

The ribs of the centrally placed waterstop shall line up with the ribs of the externally placed waterstop. All jointing shall be carried out in strict accordance with the manufacturer's instructions using purpose made metal jigs and welding equipment.

Recommendation

- ELASTOJOINT PVC shall never be used in cases of negative pressure surfaces.

Profiles

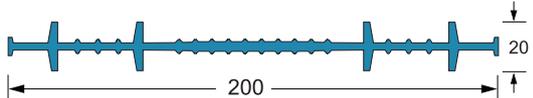
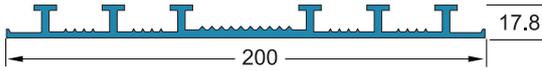
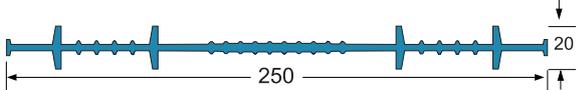
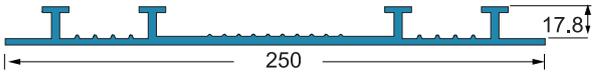
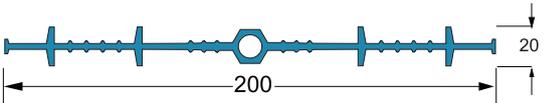
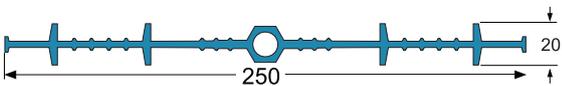
Junction Pieces

A wide range of standard jointing pieces are available. All have a 30cm free wing to allow an easy butt welding at site.

For non-standard sections, drawings are to be provided depicting the necessary details as required.

Types of Joints

- Flat Cross Type
- Flat 3-Way Type
- 90° Flat Angle
- 90° Edge Angle
- 90° Vertical T-Piece
- 90° Vertical Cross Type

Construction Joints					
Internal			External		
IC 200	Std. Wt.	Head Pres	EC 200	Std. Wt.	Head Pres
					
IC 250	Std. Wt.	Head Pres	EC 250	Std. Wt.	Head Pres
					
Expansion Joints					
Internal			External		
IE 200	Std. Wt.	Head Pres	EE200	Std. Wt.	Head Pres
					
IE 250	Std. Wt.	Head Pres	EE250	Std. Wt.	Head Pres
					

Note: Other sizes and thicknesses of the above profiles are available upon request with minimum orders

Design Principles

Concrete thickness, position of the reinforcement, aggregate size and complexity of the pour are amongst the major consideration upon choosing the appropriate width and thickness of the waterstop to be used.

Generally, the 250 mm width waterstop suits to wall thicknesses of 250 mm and beyond. However, the use of a narrower waterstop is recommended for concrete that is less than 250 mm thick. In this regard, 200 mm profile is available for this purpose.

Centrally Placed Waterstop

These waterstops are positioned within the thickness of the concrete components thus as a result are supported by concrete on both sides. In this manner, they can be able to endure water pressure coming from either side making them suitable for use in water retaining structures. They function to inhibit loss of water from within the tank and will prevent ingress of water when the tank happens to drain down.

Externally Placed Waterstop

These waterstops are designed for use in basement, foundation and floor slab construction in vertical and horizontal joints in both water retaining and water excluding structures.

When used in walls, externally placed waterstops will only resist water pressure from the face to which they are fixed. When used below floor slabs, where the waterstop is supported by the blinding concrete or when placed in vertical situations against permanent concrete shuttering, externally placed waterstop will resist water pressure from either face.

Applicable Standards

- BS 2782
- ASTM-D 638:91

Technical Data

Properties	Results
Type	Extruded polyvinyl chloride
Color	Blue
Specific gravity at 25°C	1.35 ± 0.1
Shore A hardness	85
Tensile strength	≥ 12 N/mm ²
Ultimate elongation	> 300 %
Brittleness temperature	-25°C
Water absorption	Negligible
Service temperature	-35°C to +60°C
Alkaline resistance	Passed
Hydrocarbon resistance	Passed

All values are subject to 5-10 % tolerance

Storage

If stored properly in a cool and shaded area (at temperatures between +10°C and +25°C) and in unopened and dry conditions. ELASTOJOINT PVC maintains its stability for 5 years from the date of production. Keep away from sharp edges to prevent damage.

Health & Safety

Protective clothing such as gloves should be worn during installation. Wash hands with soap and water after working with this material.

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