HydroTank PVC WaterStop

Internal & External Construction & Expansion Joint Water Stops

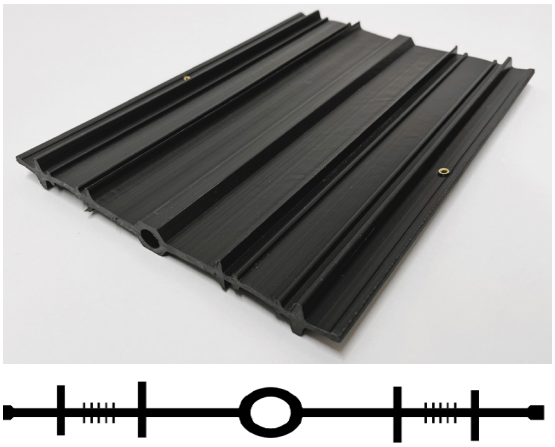
Revision: 1 - 6 November 2024

INTRODUCTION

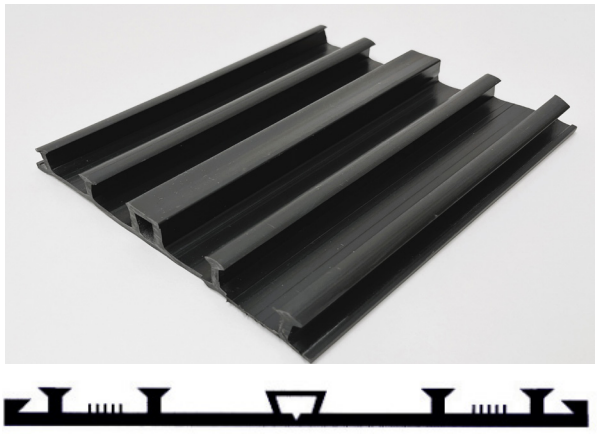
HydroTank XTCB and HydroTank XTRS are traditional, cast in-situ PVC WaterStops, designed to provide a watertight seal to prevent water passing through construction and movement joints of concrete structures. HydroTank XTCB is installed to the centre of the concrete section of the joint and HydroTank XTRS is applied to the external face of the joint.

The waterstops and their ancillaries are extruded from a high-performance PVC formula which has excellent flexibility and longevity. The multi-rib profile provides a torturous path to prevent the passage of water through joints when concrete is correctly placed and compacted.

HydroTank XTCB



HydroTank XTRS



HydroTank XTCB

The XTCB profile is specifically developed to be placed centrally within concrete wall and floor joints, and includes an eyelet edge flange which enables wiring and positioning to the surrounding reinforcement. Placed centrally within the joint, the XTCB is able to withstand water pressure from either side, making them suitable for both water retaining and water resisting structures. The XTCB also has a central bulb to accommodate the movement in expansion joints and the support of the joint filler board.

HydroTank XTRS

The XTRS profile is specifically developed to seal joints in concrete at the external surface which protects the reinforcing steel against corrosion attack and provides a totally watertight seal. The central bulb allows movement to be accommodated in expansion joints and also provides an area to support expansion joint filler boards. The XTRS incorporates a nailing flanged edge to ensure a secure fixing that resists tearing.

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 building concrete or when placed in vertical situations against permanent concrete shuttering, externally placed waterstops will resist water pressure from either face.

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Opening Hours:
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Friday 8:00am - 5:00pm

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TECHNICAL DATA

	XTCB	XTRS		
Features	**Result**		**Units**	**Test Method**
Colour	Black			
Material	PVC			
Length	12		m	
Width	200 or 250		mm	
Thickness	4-6		mm	
Packaged weight - 200 mm width	22	27	kg	
Packaged weight - 250 mm width	28	37	kg	
Density	1.5	1.43		BS 2782 620A / EN ISO 1183-1 Method A
Hardness - Shore A	78-82	75-80		EN ISO 868
Tensile strength	12	12	MN/m^2	BS 2782 320A / EN ISO 527 - 2
Elongation at break	240	270	%	
Cold flex temperature	N/A	-24	^{O}C	BS 2782 150B
Product Code - 200 mm width	HT-XTCB200	HT-XTRS200		
Product Code - 250 mm width	HT-XTCB250	HT-XTRS250		
Shelf life	Unlimited if protected from UV			
Application temperature	As concrete			

All technical data stated above is based on test results carried out under laboratory conditions.

PACKAGING & STORAGE

Standard packaging size: Coils of 12m in either 200mm or 250mm widths

Storage : Store in dry conditions between +5°C and +25°C, protected from UV light.

CUSTOM SIZES - MADE TO ORDER

- XTRS - 12m coil x 320mm wide
- XTRS 90^{O} profile - 12m coil x 320mm wide
- XTCB -12m coil x 150mm x 300mm wide
- XTCB -12m coil x 150mm wide

JUNCTIONS

To compliment our range of PVC waterstops, we can provide pre-welded junctions. These can be used where the waterstop has changes of direction. Special factory-made junctions are also available to order where connections are required between internal to external, and complete fabrications can be provided for project specific details.

Vertical L

Flat X

Vertical T

Flat T

Flat L

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ANCILLARIES

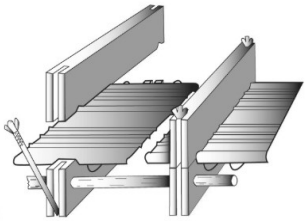
Welding blade - 110 v - Code HT-PVCWB

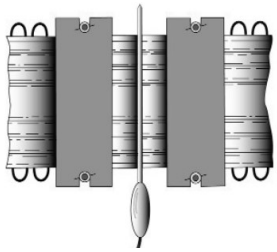
XTCB Jointing Jigs

- 200mm - Code HT-XTCB200JJ
- 250mm - Code HT-XTCB250JJ

XTRS Jointing Jigs

- 200mm - Code HT-XTRS200JJ
- 250mm - Code HT-XTRS250JJ





MOVEMENT JOINTS

Newton FlexJoint is a non-absorbent Joint Filler, which can be used with Newton FlexProof joint sealant to complete a sealed movement joint detail.

TYPICAL APPLICATIONS

Waterproofing of construction, isolation, movement and shrinkage joints within concrete structures such as:

- Reservoirs, water towers, swimming pools and sewage tanks
- Dams, culverts, canals and spillways
- Bundled areas surrounding liquid retaining tanks
- Below-ground and earth retaining structures such as basements, car parks, abutments and retaining walls
- Tunnels and subways
- Roof decks and podium areas

KEY BENEFITS

- Immediate protection against water pressure - does not need to swell to be effective as is the case with hydrophilic waterstops
- Extremely high bond between the ribbed profile of the waterstop and the surrounding concrete ensuring a torturous path for the water trying to pass through the joint
- No kicker or rebate required, reducing site labour costs
- Preformed ancillaries for quick site installation
- More durable than conventional waterstops - cannot be damaged or moved by the placing or compacting of concrete
- Can be installed in any weather and at any temperature
- Continuous multi-rib control profiles
- Eyelet edges for positive fixing (XTCB)
- Nailing flange for easy fixing (XTRS)
- Range of profiles
- Simple jointing on site
- Range of standard junction pieces
- Special fabrications available (made to order)

LIFE EXPECTANCY

When specified, installed and protected in accordance with the Data Sheet, fully and permanently isolated from UV light and physical damage or wearing, and only to those substrates confirmed within this Data Sheet, HydroTank PVC WaterStop has a service life that can be equal to the design life of the structure.

PRODUCT WARRANTY

HydroTank PVC WaterStop is supplied with a product warranty that confirms its suitability and fitness for purpose for the uses confirmed within this Data Sheet. Defective product will be replaced under the terms of the warranty. Please note that the warranty is not an installation guarantee. The waterproofing guarantee is provided by the specialist waterproofing contractor who installs the waterproofing system.

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SUITABLE SUBSTRATE

Static construction and expansion joints within reinforced concrete, earth retaining structures.

SPECIALIST TOOLS REQUIRED

- HydroTank PVC Waterstop Jointing Jig - Codes: Ancillaries section on page 3
- HydroTank PVC Waterstop Welding Blade - Code: HT-PVCWB

INSTALLATION

XTCB

The waterstop must be installed securely in the correct position to the centre of the wall section thickness and the joint itself. Concrete must be fully compacted to ensure there are no voids or porosity. Ensure spacing from reinforcement to ensure correct compaction.

XTRS

Where the waterstop is above the blinding or other floor support, XTRS profiles usually require no fixing. Lay the waterstop centrally where the joint is to be formed. With vertical form-work, nail through the outer flanges. To ensure that the waterstop is not displaced when form-work is removed, ensure that the head of the nail is proud and so held in place by the concrete.

SITE WELDING

1. Using a sharp knife cut both ends to be welded straight and square (use jig as a guide)
2. Locate waterstop in jig, with approx 25mm protruding, square jig with clamp
3. Insert hot blade
4. Push waterstop ends against the blade
5. Maintain contact until PVC melts into a bead of about 5mm diameter (approx. 1 minute)
6. Release jig and remove knife
7. Push molten ends of waterstop together
8. Allow to cool (approx. 3 minutes)
9. Release jig and remove waterstop
10. Inspect welded joint for continuity of weld and correct alignment of profiles

TRAINING & COMPETENCY OF USER

HydroTank PVC WaterStop should be used by those with an understanding of the requirement to waterproof retained structures and the knowledge and training to use the product as part of a coordinated approach to the waterproofing of the structure, which in most cases will require further waterproofing products so as to achieve the required habitable grade as defined by BS 8102:2022.

HEALTH & SAFETY

Product should only be used as directed.

Welding of flexible PVC can result in the release of Hydrochloric Acid fumes. In confined areas use a respirator or use forced ventilation. Do not inhale the fumes. On open sites these precautions are not usually necessary but care should be taken not to inhale any fumes. The electric welding knife should be properly earthed before use.

SPECIFICATION

Newton Waterproofing Systems work in partnership with RIBA NBS who publish our products on NBS Source. The platform integrates seamlessly into project workflows, providing all product data from Newton's NBS BIM Objects, NBS Plus Clauses and RIBA Product Selector into one single source of product information.

NBS Source also hosts a large selection of Newton case studies, as well as product literature and certifications. A wide range of drawings are available on our website.

Any specification/advice provided is only valid if used with products supplied by John Newton and Company Ltd (trading as Newton Waterproofing Systems). Newton Waterproofing Systems reserve the right to update product literature at any time. Please always refer to our website for the latest versions.

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