

BluSeal TX PVC Waterstop

Standard Performance Specification (SPS) Grade

Material Description

BluSeal TX PVC Waterstop is a specially designed profile for use in construction or expansion/isolation joints in concrete where you require a waterstop in the joint between an existing structure to a new structure.

Characteristics and Benefits

- Ability to waterstop the joint where traditional PVC waterstop profiles or other waterstop systems cannot be placed.
- Able to accommodate large movements in expansion/isolation joints due to its innovative design.
- Able to accommodate longitudinal, lateral and differential movements in expansion/isolation joints.
- A high-performance material produced from virgin PVC compound (refer to material specification) giving long-term integrity and durability over time. No scrap or recycled PVC's are used
- Water stops the joint and allows it to expand and contract freely from movements caused by thermal fluctuations and serviceability loads from within the structure.

Areas of Application

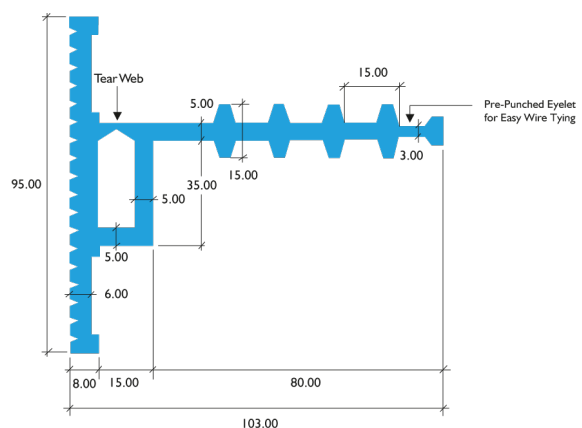
All types of construction or expansion/isolation joints in concrete where an existing structure and new structure meet and require a waterstop.

Note: The products design and performance, its intended use, installation and final confirmation and approval for use, must be provided by the project's Design Engineer and Project Manager.

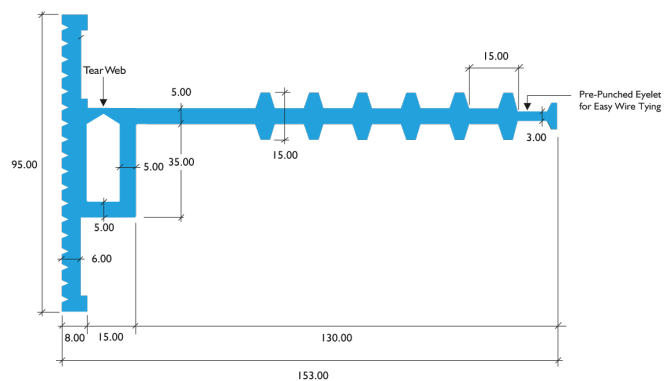
Product Data

Colour	Orange
Material Type	Polyvinyl Chloride (PVC)
Welding Temperatures	Approximately 190°C - 200°C
Service Temperature	-25°C - 70°C

Profiles



TX-100

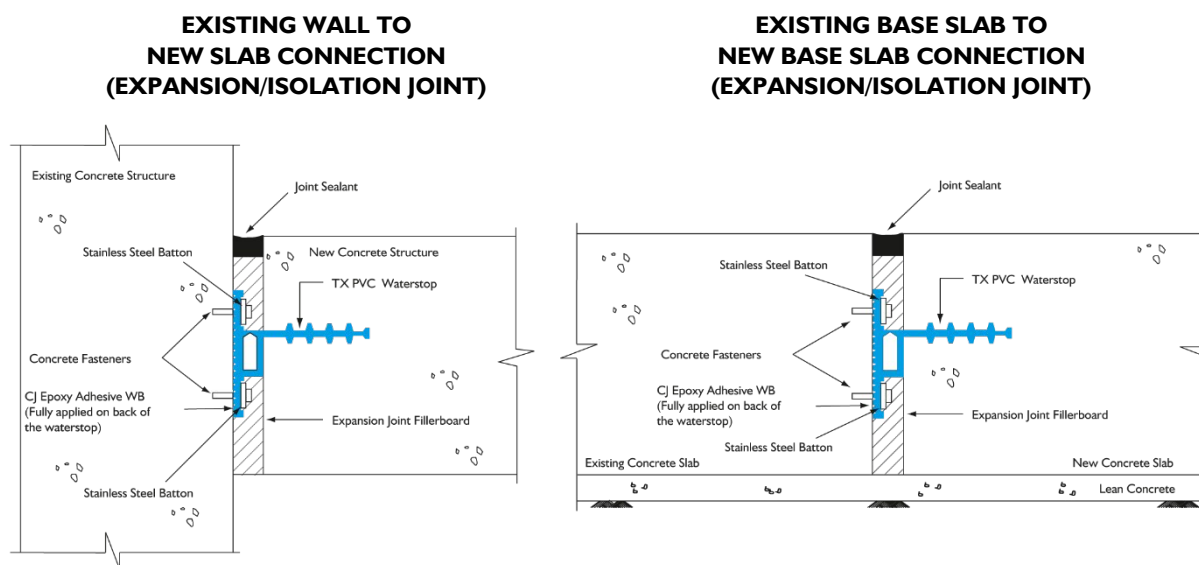


TX-150

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Typical Installation Detail to Existing Structure



Design Parameters

- **BluSeal TX-100 PVC Waterstop** should only be installed into an expansion/isolation joint with a maximum width of 30mm and with a maximum movement (longitudinally and vertically) of 50mm. If a wider joint or wider range of movement is required, please consult Bluey Technologies.
- **BluSeal TX-150 PVC Waterstop** should only be installed into an expansion/isolation joint with a maximum width of 50mm and with a maximum movement (longitudinally and vertically) of 50mm. If a wider joint or wider range of movement is required, please consult Bluey Technologies.
- **BluSeal TX-150 PVC Waterstop** must be installed by skilled installers and must be in accordance with Bluey Technologies' recommended installation procedures (refer to our Installation Method Guideline) or your engineers design.

- **BluSeal TX-150 PVC Waterstop** and its ancillary items for installation must be supplied from Bluey Technologies (refer to our Installation Method Guideline – Ancillary Items List).
- TPER (Thermoplastic Elastomeric Rubber) Waterstops are also available that have been designed for use in primary and secondary containment structures where a highly chemical resistant waterstop is required to prevent the flow or migration of fluid through joints in concrete.

Note: Proposal, specification, design and end use of this product must be fully endorsed and approved by the Design Engineer.

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Site Joining

Bluey Technologies recommends the use of specialised welding equipment for on-site welding which consists of thermostatically-controlled Welding Irons and special Welding Jigs (each type of **BluSeal TX PVC Waterstop** requires its own welding jig to suit the particular shape). The ends of the waterstop are cut square and placed into the adjustable Welding Jig, then push the ends of the waterstop against the Welding Iron and bring the two ends together until the molten ends of the PVC fuse. When ordering Welding Equipment, please advise profile number of the waterstop required.

Installation

1. Prepare the existing concrete surface by grinding away any rough or irregular concrete so it is free of any protrusions. The area to be prepared is to be 150mm wide by the length of the waterstop section.
2. Thoroughly clean the concrete surface with a wire brush, high pressure air or high pressure water jet. There must be no foreign matter, dirt, laitance or grease on the surface. The concrete surface accepting the BluSeal TX PVC Waterstop must be good, sound and solid.
3. Prepare the **BluSeal TX PVC Waterstop** for installation by joining the appropriate length(s) and intersections at site. For complete job site joining/welding method, refer to our PVC Waterstop Job Site Guideline.
4. Once the **BluSeal TX PVC Waterstop** is fully assembled and ready to be installed, check that all dimensions and directional changes are located correctly.
5. Using the pre-drilled (@150mm spacings) stainless steel batten bars 3.0mm (T) x 20mm (W) x 3.0m (L) as a template against the **BluSeal TX PVC Waterstop**, pre-drill the concrete fastener holes into the concrete surface where the waterstop is going to be positioned. The diameter and length of the holes to be drilled are to be determined by the size of the fasteners to be used.
6. With the use of a marker pen, mark on the concrete surface, the centre-line of the pre-drilled holes where the waterstop is being positioned, as this can be used as a reference marker once the waterstop is being installed.

Note: There are two rows of stainless steel battens to be used, one on each outside rebated section of the waterstop profile. Refer to the drawing diagram on the previous page.

7. Clean away the concrete dust from the fastener holes and from the concrete surface area surrounding where the fastener holes have been drilled.
8. Prepare and mix **CJ Epoxy** per mixing instructions. Ensure the amount mixed is not more than what can be installed within the epoxy's pot life. The concrete surface for application of the epoxy must be clean and dry.
9. Apply the epoxy onto the prepared concrete surface 3-5mm (thick) by 120mm (wide) with a steel trowel. Make sure that epoxy is thoroughly trowelled into the concrete surface and there are no areas left without any coverage. Apply a 2mm coat to the back of the **BluSeal TX PVC Waterstop** making sure that all the grooves are fully filled with **CJ Epoxy**. The **BluSeal TX PVC Waterstop** must be positioned before any of the epoxy cures.
10. Take hold of the **BluSeal TX PVC Waterstop**, and with assistance, start from one end and position the **BluSeal TX PVC Waterstop** in line with the epoxy and the pre-drilled fastener holes. With the top batten, insert it in position in the provided recess on the waterstop followed by the fasteners, making sure that **BluSeal TX PVC Waterstop** is placed correctly and aligned accordingly. With consistent hand pressure, press the **BluSeal TX PVC Waterstop** firmly into position while moving along the length of the waterstop to help remove any air pockets from between the waterstop and the concrete surface.
11. Once secured by the 1st batten, insert the 2nd batten in the recess provided and insert fasteners to suit. Tighten all the fasteners accordingly. Continue this procedure until all of the **BluSeal TX PVC Waterstop** is installed along the required length. Allow the epoxy to cure for 24 hours before placing the new concrete section.
12. If the joint is to be an expansion or isolation joint, then install Bluey Technologies recommended expansion joint fillerboard, on either side of the waterstop. Contact Bluey Technologies for their recommended expansion joint fillerboard for the appropriate location/project.

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13. Tie the protruding leg section of the **BluSeal TX PVC Waterstop** into position (new concrete section to be poured) with the use of wire ties to the steel reinforcement. Pre-punched eyelets (spaced at 150mm) positioned along the outer section of the waterstop are designed for this purpose.
14. All associated ancillary products to be used in the installation of the **BluSeal TX PVC Waterstop** are to be supplied by Bluey Technologies. Items supplied by Bluey Technologies required for installation are as follows:
 - BluSeal TX PVC Waterstop (State profile type)
 - Stainless Steel Batten 3.0mm (T) x 20mm (W) x 3.0m (L).
 - Stainless Steel Fasteners 6.0mm (Diam.) x 55.00mm (L) - (M6 x 55)
 - **CJ Epoxy** 5.0kg kit.
 - PVC Waterstop Intersection pieces (if required).

Project Specification Clause

TX PVC WATERSTOP - Waterstop shall be TX PVC Waterstop (state profile type) as supplied by Bluey Technologies with dimensions, shape and material properties as illustrated/mentioned in their brochure. All installation and joining procedures must be according to their recommendations and requirements and also approved by the project's design engineer.

Packaging

100m and 150mm wide – 3m per length

Storage & Shelf Life

5 years from the date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions out of direct sunlight at temperatures between 10°C and 40°C.

Performance Data

Tested Characteristic	Standard	Result
Tensile Strength	BS 2782:320A	1520N/mm
Elongation @ Break	BS 2782:320A	320%
Loss of Mass Test	BS EN 60811-3-2:1995	1.65mg/cm
Water Absorption	ISO 62	0.15% @ 23°C
Specific Gravity	BS 2782: 620B	1.41 g/cm
Thermal Stability Congo Red Test	BS 2782: 130A	50 @ 180°C (Minimum)
Hardness, Shore A	BS 2782: 365B	75

Note: Refer to Bluey Technologies' in house Certificate of Analysis (COA) dated 13/12/2018 for test results pertaining to the above. Internal COA's are conducted on every batch of raw material that is used in the production of BluSeal TX PVC Waterstops. Independent laboratory test results are also available upon request. Project specific material properties can be custom compounded to suit. Material properties can vary between batches.

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Hydrostatic Head Pressure Resistance

Hydrostatic head pressure resistance testing has not been directly undertaken on our **BluSeal TX PVC Waterstop** profiles.

Based on parameters documented in the Corps of Engineers document 'Waterstops and other Preformed Joint Material for Civil Works Structures EM1110-2-2101, (30th September 1995)' and installed in accordance with the installation instruction, the profile TX-150 can withstand up to 50 metre of water pressure.

For the extension legs of the TX profiles, we have two profile lengths at 100mm (TX-100) and 150mm (TX-150) and these leg lengths of the waterstop, once cast into the new concrete section can withstand the following hydrostatic head pressure resistance:

- TX-100 @ 12 metres (1.2 Bar)
- TX-150 @ 50 metres (5.0 bar)

Disclaimer

BluSeal TX PVC Waterstop-ANZ-V1-102025

This Technical Data Sheet is provided for general information and instruction only. The properties and characteristics set out herein represent typical testing results under laboratory conditions. Results of actual product characteristics may vary slightly. Site-specific and project-specific conditions may affect product performance, including without limitation: surfaces, environmental conditions, contact conditions, storage conditions, storage timeframes, weather, and climatic or seasonal conditions. Not all product parameters are batch tested as part of the manufacturing quality control process, and performance may vary between batches.

If Bluey gives any express written product warranty in relation to the product, that warranty is subject to the foregoing qualifications, despite anything to the contrary in any other document. All other representations, advice, suggestions or promises regarding the product's performance or its implementation, whether verbal or in writing, and whenever given, including in the course of any field services, are expressly disclaimed. Without limiting the foregoing, Bluey will have no liability for loss or damage of any kind if any application specifications are not followed.

The foregoing is not intended to exclude any warranties or guarantees which by law cannot be excluded. Subject only to the foregoing provisions of this Notice, and to the extent permitted by law, Bluey disclaims all liability for loss or damage of any kind suffered as a result of or in connection with the product or its implementation. If such liability cannot be wholly excluded, Bluey's liability will, to the extent permitted by law, be limited to the replacement of the product itself or the direct cost of replacement of the product itself (not including any collateral or consequential loss or damage of any kind).

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Emergency Advice

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