

# TX PVC WATERSTOP

## STANDARD PERFORMANCE SPECIFICATION (SPS) GRADE



### PRODUCT DESCRIPTION

**CJSA 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.



### ADVANTAGES

- 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.



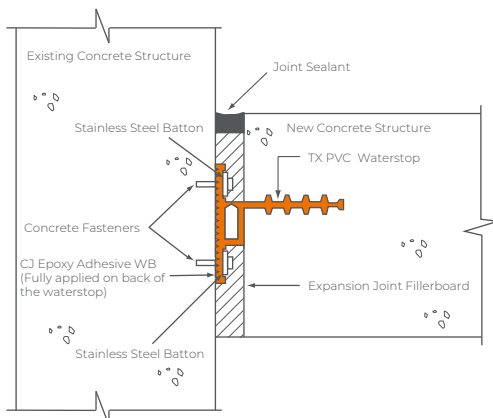
### AREAS OF APPLICATION

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

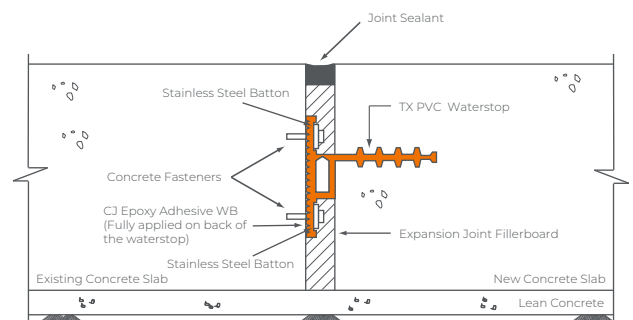
*Note: The product's design and performance, its intended use, installation and final confirmation and approval for use, must be provided by the project's Design Engineer and Project Manager.*



### TYPICAL APPLICATIONS



**EXISTING WALL TO NEW SLAB CONNECTION  
(EXPANSION/ISOLATION JOINT)**



**EXISTING BASE SLAB TO NEW BASE SLAB CONNECTION  
(EXPANSION/ISOLATION JOINT)**



## TECHNICAL FEATURES

COLOUR	Orange
PACKAGING	100mm & 150mm Wide - 3m per length
ROLL WEIGHT	Dependent upon profile type
STORAGE CONDITIONS & 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
MATERIAL TYPE	Polyvinyl Chloride (PVC)
WELDING TEMPERATURES	Approximately 190°C - 200°C
SERVICE TEMPERATURE RANGE	-25°C to +70°C



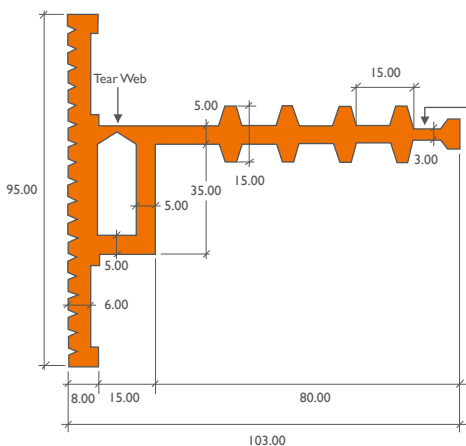
## PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	REQUIREMENT	RESULT
Tensile Strength (N/mm <sup>2</sup> )	BS 2782:320A	Min. 12.00	15.20
Elongation At Break (%)	BS 2782:320A	Min. 300	320
Loss of Mass Test (mg/cm <sup>2</sup> )	BS EN 60811-3-2:1995	N/A	1.65
Water Absorption at 23°C (%)	ISO 62	Max. 0.15	0.15
Specific Gravity (g/cm <sup>3</sup> )	BS 2782:620B	1.38 ± 0.03	1.41
Thermal Stability Congo Red Test at 180°C, Min.	BS 2782:130A	N/A	50
Hardness, Shore A	BS 2782:365B	75 ± 5	75

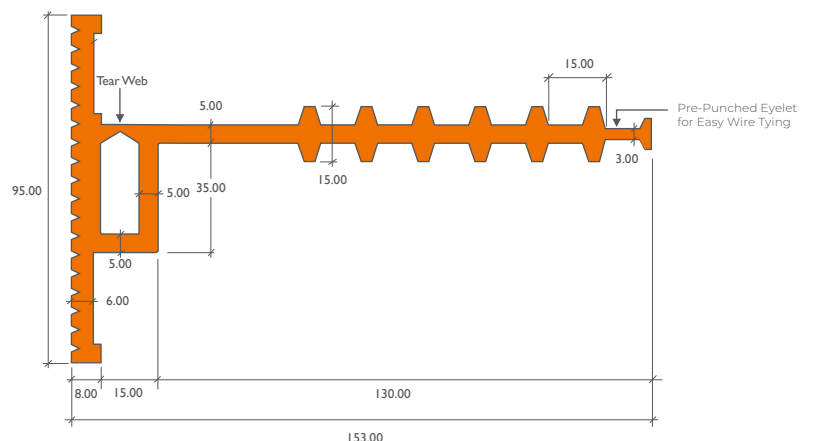
Note: Refer to CJSA's in house Certificate of Analysis (COA) dated 13/12/2018 for test results pertaining to the above. Internal COA's are conducted on every batch of raw material that is used in the production of TX PVC Waterstops. Independent laboratory test results are also available upon request.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



## PROFILE DRAWINGS



TX-100



TX-150

Note: TX PVC Waterstop is available in 3 metre lengths



**CJSA** recommends the use of its specialised welding equipment for on-site welding which consists of thermostatically-controlled Welding Irons and special Welding Jigs (each type of **TX PVC Waterstop** requires its own welding jig to suit the particular shape). On-site joining is a simple exercise using **CJSA** Heat Welding Equipment comprising of an adjustable Welding Jig and Welding Iron. 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. Refer to our PVC Waterstop Site Joining Guidelines for further information on the above.

 **DESIGN PARAMETERS**

1. **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 **CJSA**.
2. **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 **CJSA**.
3. **TX PVC Waterstop** must be installed by skilled installers and must be in accordance with **CJSA's** recommended installation procedures (refer to our "Installation Method Guideline") or your engineers design.
4. **TX PVC Waterstop** and its ancillary items for installation must be supplied from **CJSA**. (refer to our "Installation Method Guidelines - Ancillary Items List").

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

 **HYDROSTATIC HEAD PRESSURE RESISTANCE**

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

Based on parameters documented in the Corps of Engineers document, 'Waterstops and other Preformed Joint Materials 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 20 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 @ 20 metres (2.0 Bar)



## INSTALLATION PROCEDURES

1. Installation of **TX PVC Waterstop** must be in accordance with our recommended installation procedures (refer to our "Installation Method Guideline").
2. **TX PVC Waterstop** and its ancillary items for installation must be supplied from **CJSA** (refer to our "Installation Method Guideline - Ancillary Items List").
3. The concrete must be fully vibrated around the **TX PVC Waterstop** to help achieve ultimate sealing capabilities and full integration of the waterstop into the structure.
4. Joining of **TX PVC Waterstop** must be performed by heat welding with special equipment provided by **CJSA** (refer to our job site joining/welding method guideline).
5. Factory fabricated intersections must be used to connect traditional types of PVC waterstop to **TX PVC Waterstop**. Special intersections will be required to join the waterstops that are being used in the construction or expansion joints that run perpendicular into the construction, expansion/isolation joint where the **TX PVC Waterstop** is to be placed. Contact **CJSA** for further details.
6. All joints of the concrete structure that run perpendicular into the construction or expansion/ isolation joint where the **TX PVC Waterstop** is to be used, must have waterstops in them. If they are construction joints, then traditional construction joint PVC waterstops or a Hydrophilic Waterstop can be used (refer to our recommended installation procedures). If traditional PVC waterstops are to be used, then refer to item 5 above, or your design engineer's recommendations.



## WRITTEN SPECIFICATION

Waterstop shall be **TX PVC Waterstop** (state profile type) as supplied by **CJSA** 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.



## HEALTH AND SAFETY INFORMATION

Joining of **TX PVC Waterstops** is performed by heat welding which results in the discharge of hydrogen chloride mist and vapour. In confined spaces or in still air conditions, the use of a ventilation fan or suitable respirator should be used, and the advice and approval of the site Safety Supervisor is essential. For further information or advice on health and safety precautions, safe handling, storage and correct disposal of products, please refer to the most recent product Safety Data Sheet (SDS) which is available upon request.



## DISCLAIMER

The information and the recommendations relating to the application and end use of this product are given in good faith and are based on the information provided by the manufacturer of the product and/or the Company's current knowledge and experience in connection with the product when properly stored, handled and applied under normal conditions and no liability of final function at the job site is assumed. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability of, or fitness for, particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written and/or oral recommendations, or from any other advice offered by the Company. The Company also has no express or implied knowledge of any particular purpose for which the product is required and any such information given will not be taken into account in the supply of this product. No responsibility or liability by the Company will be accepted for misuse, misreading or derivation from recommended guidelines in respect of this product and the user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. The information contained in our brochure may change at any time without notice. Any use of this product, **TX PVC Waterstops**, in any application should be approved as suitable for use/application by the Design Engineer and Project Manager.

**Effective Date: 18 AUGUST 2020**

### **CJSA**

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