PREBAR PVC WATERSTOP.



Technical Data Sheet | **Heat-Weldable Thermoplastic PVC Waterstop Profile for Cast-in-Situ Concrete Joints** | **Issue date: 12 November 2026**

Description

PREBAR PVC WATERSTOP is a high-performance thermoplastic polyvinyl chloride profile cast into concrete joints to form a continuous watertight barrier through the structure. Manufactured and tested to BS 2782, it develops 15.49 MPa tensile strength at 330% elongation — flexible enough to accommodate joint movement and hydrostatic pressure, strong enough to resist tearing under placement and vibration.

It is heat weldable at 190–200°C for seamless on-site joining, and is supplied with prefabricated intersection pieces so that the tees, crosses and corners where site-fabricated waterstops usually fail arrive as factory-formed units. Available in internal and external profiles for both construction and expansion joints, in horizontal and vertical applications, it resists water, chemicals and environmental attack across a service range of −25°C to +70°C.

Advantages

- Manufactured and tested to BS 2782 with independent laboratory verification available on request.
- Tensile strength of 15.49 MPa against a 12.00 MPa minimum requirement.
- Elongation at break of 330%, above the 300% minimum requirement.
- Heat weldable at 190–200°C for continuous, leak-proof on-site joints.
- Prefabricated intersection pieces eliminate the site-fabricated tees and crosses where waterstops typically fail.
- Internal and external profiles available for both construction and expansion joints.
- Very low water absorption at 0.19% to ISO 62.
- Flexible enough to adapt to joint movement and hydrostatic pressure.
- Service temperature range of −25°C to +70°C.
- Five-year shelf life when correctly stored.

Uses

- Water-retaining structures — basement slabs, lift pits, retaining walls and suspended slabs.
- Swimming pools, reservoirs, water towers and sewage tanks.
- Dams, culverts, canals and spillways.
- Bunded areas around liquid-retaining tanks.
- Water-excluding structures — basements and underground car parks.
- Tunnels and subways.
- Abutments and retaining walls.
- Roof decks and podium areas.
- Construction and expansion joints in horizontal and vertical cast-in-situ concrete.

Compliance Status

PREBAR PVC WATERSTOP is manufactured and tested to BS 2782. Batch certificates of analysis are conducted on the raw material used in production, and independent laboratory test results are available on request.

STANDARD / TEST	RESULT	TEST METHOD
Tensile strength — minimum 12.00 MPa	15.49 MPa — pass	BS 2782.320A
Elongation at break — minimum 300%	330% — pass	BS 2782.320A

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Compliance Status (continued)

STANDARD / TEST	RESULT	TEST METHOD
Specific gravity — 1.38 ± 0.03 g/cm³	1.41 g/cm³ — pass	BS 2782:620B
Hardness — 75 ± 5 Shore A	75 Shore A — pass	BS 2782:365B
Water absorption at 23°C	0.19%	ISO 62
Thermal stability, Congo Red at 180°C	50 minutes minimum	BS 2782:130A
Loss of mass	1.65 mg/cm²	BS EN 60811-3-2:1995

Technical Data

Certified values are stated against their governing report. All other values are typical R&D characteristic values and are asterisked.

PROPERTY	VALUE	BASIS
Product type	Thermoplastic polyvinyl chloride waterstop profile	—
Material	Polyvinyl chloride (PVC)	—
Colour	Blue	—
Tensile strength	15.49 MPa	BS 2782.320A
Elongation at break	330%	BS 2782.320A
Hardness	75 Shore A	BS 2782:365B
Specific gravity	1.41 g/cm³	BS 2782:620B
Water absorption at 23°C	0.19%	ISO 62
Thermal stability, Congo Red at 180°C	Minimum 50 minutes	BS 2782:130A
Welding temperature	Approximately 190°C to 200°C	—
Service temperature range	−25°C to +70°C	—
Profiles	Internal and external, for construction and expansion joints	—
Roll weight	Dependent on profile type	—
Storage temperature	+10°C to +40°C	—
Shelf life	5 years from the date of production, correctly stored	—

Profile selection — internal or external, construction or expansion joint — must be made against the project design and the joint movement expected. Prefabricated intersection pieces are available for tees, crosses and corners and are strongly recommended in place of site fabrication.

* Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

Coverage and Yield

PROFILE WIDTH	ROLL LENGTH	TAKE-OFF BASIS
150 mm	20 m roll	Measured joint length plus intersections and 10% for wastage *
200 mm	20 m roll	Measured joint length plus intersections and 10% for wastage *
250 mm	15 m roll	Measured joint length plus intersections and 10% for wastage *

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Coverage and Yield (continued)

PROFILE WIDTH	ROLL LENGTH	TAKE-OFF BASIS
320 mm	12 m roll	Measured joint length plus intersections and 10% for wastage *
Prefabricated intersections	Supplied as units	One unit per tee, cross or corner

Take-offs must allow for weld laps, prefabricated intersections at every junction, and offcut wastage. Each roll is securely packed for safe transport and handling. * Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

Limitations

- Not a waterproofing membrane — PREBAR PVC WATERSTOP seals a joint within the structure; it does not waterproof a surface.
- Must be fully encased in concrete on both sides with the design cover maintained — a waterstop with inadequate cover or a void alongside it does not seal.
- Must be centred and correctly aligned in the joint; an off-centre waterstop halves the water path on one side.
- Do not install over dirty, wet or contaminated surfaces.
- Do not fold, kink or crease the profile — a folded waterstop creates a permanent water path.
- All joins must be fully heat welded; taped, glued or overlapped joins are not acceptable.
- Do not overheat during welding — PVC degrades above the stated welding range.
- The waterstop must remain in position throughout the pour; secure vertical installations with appropriate anchors or fixings.
- Do not store above 40°C or in direct sunlight.
- Joint design, profile selection and hydrostatic duty are the design responsibility of the project engineer.

Surface Preparation

- Confirm the surfaces where the waterstop will be installed are clean, dry and free from debris and contaminants.
- Confirm the formwork is set out to receive the waterstop centrally within the joint, with the design concrete cover achievable on both sides.
- Confirm the correct profile — internal or external, construction or expansion joint — has been selected against the project design.
- Confirm prefabricated intersection pieces are on site for every tee, cross and corner.
- Confirm the reinforcement layout allows full concrete encasement and compaction around the profile.

Installation

- Cut the waterstop to the required lengths with a clean blade, allowing adequate overlap at joints and intersections.
- Position the waterstop within the construction joint, ensuring it is centred and correctly aligned. For vertical joints, secure it with appropriate anchors or fixing methods.
- Heat weld all sections at approximately 190–200°C to form continuous, leak-proof joints. Ensure the seams are fully welded through the full section to form a secure bond.
- Install prefabricated intersection pieces at every tee, cross and corner to minimise site fabrication. Ensure all connections are properly aligned and welded.
- Inspect every weld for full fusion, alignment and freedom from voids before the pour.
- Confirm the waterstop is secured, centred and undamaged immediately before concrete is placed.
- Place and compact the concrete carefully around the profile to achieve full encasement with no voids, taking care that the waterstop remains in position throughout the pour.
- Protect the exposed half of the waterstop from damage, contamination and concrete splatter until the second pour.
- Clean the exposed half thoroughly before the second pour so that the concrete bonds to a clean profile.

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Drying, Curing and Testing Times

All times below are measured at 25°C and 50% RH. Low temperature extends weld cooling — confirm every weld is fully cooled before the section is moved or concrete is placed.

STAGE (AT 25°C, 50% RH)	TIME
Weld cooling before handling	Allow the weld to cool fully before moving the section *
Weld inspection	Immediately after cooling, before the pour
Pre-pour inspection and release	Before any concrete is placed
Protection of the exposed half	Until the second pour
Cleaning before the second pour	Immediately before concrete is placed *

* Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

Clean Up

Remove offcuts and packaging immediately and keep the work area clear. Tools require no solvent cleaning. Where a primer, adhesive or liquid membrane has been used alongside the waterstop, clean tools according to that product Technical Data Sheet while the material remains wet.

Container and Waste Disposal

Dispose of offcuts, cores and packaging as general construction waste in accordance with State and local requirements. Do not discharge primer or membrane residues into drains, soil or waterways. Refer to Section 13 of the SDS of any primer or liquid product used with the waterstop.

Quality Records

Record the batch numbers and roll identifiers of all PREBAR PVC WATERSTOP used, profile type and width selected against the project design, joint locations and lengths, weld locations, weld temperature and weld inspection results, prefabricated intersections installed, concrete cover achieved on both sides, pre-pour inspection sign-off, the dates of both concrete pours, and cleaning of the exposed half before the second pour, as part of the project quality assurance records.

Storage

Store in original, unopened and undamaged sealed packaging in dry conditions out of direct sunlight at temperatures between +10°C and +40°C. Do not stack in a way that deforms the profile. Shelf life: 5 years from the date of production when stored as specified.

Safety Precautions and First Aid

Refer to the current Safety Data Sheet before use. The product is supplied in a cured, non-reactive form and is not classified as hazardous in normal handling. The principal hazards in installation arise from cutting tools, from working at height and in confined below-ground spaces, and from the primers, adhesives and membranes used alongside it. Wear protective gloves, eye protection and protective clothing. Use a sharp blade with a cutting board and cut away from the body. Where work is below ground or in a confined space, apply the site confined-space entry procedure — test the atmosphere, provide mechanical ventilation and maintain a standby observer. Do not eat, drink or smoke when handling; wash hands before breaks and after work.

First aid — Eyes: rinse cautiously with water for several minutes and seek medical attention if irritation persists. Skin: wash with soap and water. Inhaled — welding fume: move to fresh air and keep comfortable; seek medical attention if respiratory symptoms occur. Burns from welding equipment: cool under running water for 20 minutes and seek medical attention for anything beyond a minor burn. Cuts from cutting tools: clean the wound, apply a dressing and seek medical attention where the wound is deep or contaminated. POISONS INFORMATION CENTRE: 13 11 26 (Australia-wide, 24 hours). In an emergency, dial 000. KEEP OUT OF REACH OF CHILDREN. Read the Safety Data Sheet (SDS) before use — available at www.forspec.com.au.

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Warranty

Standard Product and Performance Warranty: Forspec Protective Coatings Pty Ltd as Trustee for Forspec Protective Coatings (ABN 11 204 033 631) warrants that PREBAR PVC WATERSTOP will be free from manufacturing defects and will not fail under normal usage for a period of ten (10) years from the date of purchase, when installed and used strictly in accordance with this Technical Data Sheet and Forspec's written instructions. This warranty covers the supply of the product only; it does not cover installation, application or workmanship. Remedies are limited, at Forspec's discretion, to replacement of the defective product (or defective portion) or a refund of the purchase price. The full terms, conditions and exclusions are set out in the Forspec Standard Product and Performance Warranty, available at www.forspec.com.au — key conditions include application by a suitably qualified and, where required by law, licensed applicator; use within shelf life; and installation as part of a Forspec approved system without non-approved third-party products.

Project and system warranties: extended project-specific warranties are available at the request of the applicator and must be applied for using the Forspec Warranty Request Form prior to commencement of works. Issue is subject to Forspec approval and is conditional on the use of the complete specified FORSPEC system, application in strict accordance with the current TDS by suitably qualified applicators, and completion of the project quality records described above. The warranty period and terms are as stated in the issued warranty certificate.

Claims: notify Forspec in writing within thirty (30) days of discovery of the alleged defect and within the warranty period, by post to 22/872 Canterbury Road, Roselands NSW 2196 or by email to info@forspec.com.au, including proof of purchase, installation details (date, location, installer), a description of the defect with supporting evidence, and your contact details. Forspec may inspect the site, perform testing and collect samples before determining a claim.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Data Sheet Currency

This Technical Data Sheet (TDS) and the corresponding Safety Data Sheet (SDS) are subject to revision as necessary to ensure compliance with relevant Australian Standards and to incorporate technological advancement. Read the most current versions before use, as application and performance data may be updated. For the latest technical information, contact Forspec Protective Coatings on (02) 8021 3517 or info@forspec.com.au. The information provided is representative and does not serve as a comprehensive specification. For specific projects, consult directly with Forspec Protective Coatings for tailored specifications. This data sheet was issued on 12/11/2026 and is valid for three years from the date of issue unless superseded by a later revision — always confirm the current version at www.forspec.com.au before use.

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