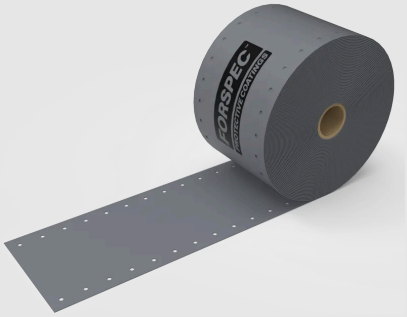
# FORSPEC EXPANDOFLEX JOINT TAPE.



**Technical Data Sheet** | **Epoxy-Bonded Tpe Expansion Joint Waterproofing Tape for Structural Movement Joints** | **Issue date: 25 August 2026**

## Description

FORSPEC EXPANDOFLEX JOINT TAPE is a heavy-duty thermoplastic elastomer expansion joint waterproofing system engineered for structural movement joints and critical transitions in above- and below-ground construction. The corrugated central movement zone spans the joint unbonded and deflects freely under structural displacement, while the flanking bonding zones are epoxy-anchored to the concrete with PROBOND 1100, transferring no stress to the moving centre. Tensile strength approaching 5 MPa in both axes, elongation in excess of 530%, and tear propagation strength above 40 N/mm² give the tape the capacity to carry structural movement over the design life of the joint.

The tape is permanently elastic, fully root-penetration resistant, and resistant to hydrolysis, microorganisms, sea water, wastewater, UV and water-based and bitumen-based foundation insulations. It withstands water pressure in excess of 5 bar to EN 1928 and remains crack-free at −30°C, making it suitable for tunnels, retaining walls, podium slabs, water tanks, swimming pools, wastewater structures, green roofs and planters. Sections are heat-welded on site to produce continuous runs and field-fabricated corners, and a recessed saw-cut installation is available where a flush finish or mechanical anchorage is required.

## Advantages

- Corrugated central movement zone deflects freely within the joint void — movement is accommodated by the tape, not resisted by the bond.
- High UV and weathering resistance for exposed and above-ground joints.
- Fully root-penetration resistant — suitable for green roofs, planters and landscaped podiums.
- Excellent chemical and microorganism resistance, including sea water, wastewater and hydrolysis.
- Water pressure resistance greater than 5 bar to EN 1928.
- Permanently elastic with elongation above 530% in both axes.
- Cold flexible with no cracking at −30°C and serviceable to +80°C.
- Heat weldable on site for continuous runs and field-fabricated corner pieces.
- Compatible with epoxy, polyurethane and cementitious waterproofing systems.
- Recessed saw-cut installation available for trafficked and high-load areas.

## Uses

- Horizontal and vertical expansion joints, including primary and secondary movement joints.
- Structural movement joints and seismic joints, subject to engineer design.
- Base-to-wall transitions and parapet waterproofing.
- Tunnel, retaining wall and podium slab joints.
- Concrete-to-steel and dissimilar-material transitions.
- Wide and irregular crack bridging.
- Water tanks, swimming pools and wastewater tanks.
- Below-grade construction, including areas exposed to root penetration.

## Compliance Status

FORSPEC EXPANDOFLEX JOINT TAPE is a structural joint waterproofing component and is not certified to a liquid membrane standard. No accredited certificate is currently held on file for the properties below; they are published as manufacturer data. Joint movement class and expected displacement remain the design responsibility of the project engineer.



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## Compliance Status (continued)

| STANDARD / TEST | STATUS | REFERENCE |
|---|---|---|
| EN ISO 527-3 — tensile properties | Manufacturer data | Forspec R&D * |
| EN ISO 12310-2 — tear propagation | Manufacturer data | Forspec R&D * |
| EN 1928 — water pressure resistance | > 5 bar — manufacturer data | Forspec R&D * |
| SIA 280/3 — cold flexibility | No cracking at −30°C — manufacturer data | Forspec R&D * |
| ISO 868 — hardness | 70 Shore A — manufacturer data | Forspec R&D * |
| DIN 16860 — peel resistance from epoxy | > 20 N per 10 mm — manufacturer data | Forspec R&D * |
| Root penetration resistance | Manufacturer classification — accredited verification outstanding | To be commissioned |

## 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 elastomer expansion joint tape with corrugated central movement zone | — |
| Colour | RAL 7040 | — |
| Thickness | 1.0 mm, 1.25 mm, 1.5 mm and 2.0 mm | — |
| Widths | 150, 200, 250, 300, 350 and 400 mm — custom widths to order | — |
| Roll length | 25 m | — |
| Weight | Approx. 1050 g/m² ± 5% | * |
| Tensile strength (longitudinal) | 4.8 MPa | EN ISO 527-3 * |
| Tensile strength (transverse) | 4.7 MPa | EN ISO 527-3 * |
| Elongation at maximum load (longitudinal) | 532% | EN ISO 527-3 * |
| Elongation at maximum load (transverse) | 580% | EN ISO 527-3 * |
| Tear propagation strength (longitudinal) | 42 N/mm² | EN ISO 12310-2 * |
| Tear propagation strength (transverse) | 48 N/mm² | EN ISO 12310-2 * |
| Hardness | 70 Shore A | ISO 868 * |
| Peel resistance from epoxy | > 20 N per 10 mm | DIN 16860 * |
| Water pressure resistance | > 5 bar | EN 1928 * |
| Cold flexibility | No cracking at −30°C | SIA 280/3 * |
| Service temperature | −30°C to +80°C | SIA V280/3+4 * |
| Chemical resistance | Water-based and bitumen-based foundation insulations, sea water, wastewater, UV, hydrolysis and microorganisms | * |



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## Technical Data (continued)

| PROPERTY | VALUE | BASIS |
|---|---|---|
| Application temperature | +5°C to +35°C | — |
| Shelf life | 24 months, unopened, stored as specified | — |

The source data sheet recorded thickness, width and weight in a single corrupted row. The dimensions above are the corrected published set — refer to the Change Register.

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

## Coverage and Yield

Demand is governed by joint length, tape width and the epoxy bonding width required on each face. PROBOND 1100 is applied at 1.0–1.5 mm on standard surfaces, plus a capping layer of the same thickness, or at 5 mm DFT in recessed saw-cut installations.

| MEASURE | VALUE | BASIS |
|---|---|---|
| Roll length | 25 m per roll | — |
| Linear tape demand | Measured joint length plus welded lap allowance and 10% for corners and wastage | — |
| Epoxy bonding width — 200 mm tape | 40 mm per side | — |
| Epoxy bonding width — corners and terminations | Minimum 40 mm per face | — |
| PROBOND 1100 demand — standard surface | Bed 1.0–1.5 mm plus capping 1.0–1.5 mm over both bonding widths * | * |
| PROBOND 1100 demand — recessed saw-cut | 5 mm DFT in the reglet plus 5 mm capping over each embedded flange * | * |

Take-offs must allow for weld laps, preformed or field-fabricated corner sections, downturn loop material at high-movement joints, and epoxy wastage. * Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

## Limitations

- Not designed for load transfer — the tape seals the joint; it does not carry structural load.
- Not a substitute for movement joint design. Joint width, movement class and expected displacement must be determined by the project engineer and the installation must satisfy the engineer's deflection criteria.
- Never apply epoxy to the central flexible zone of the tape — an adhered centre cannot deflect and the tape will tear.
- Do not install below 5°C or above 35°C ambient and substrate temperature.
- Must not be installed on weak, friable, dusty or contaminated concrete.
- Do not install over damp or frosted substrates, or where condensation is present.
- Do not force, kink or crease the tape at vertical transitions — form a gradual radius.
- Recessed saw-cut installation must be specified where the joint is subject to mechanical wear, heavy-duty service or traffic, or where a flush finish is required.
- PROBOND 1100 must not be re-tempered, extended or thinned with solvent.
- Where an alternative adhesive is proposed, confirm suitability in writing with a FORSPEC technical representative before use.

## Surface Preparation

- Clean the joint flanks thoroughly. The surface must be dry, sound and free from laitance, grease, oil, dust and curing agents.
- Mechanically prepare both bonding faces by grinding or shot blasting to expose a clean, open, sound surface for optimal epoxy bonding.
- Vacuum the prepared faces and the joint void immediately before adhesive application.



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## Surface Preparation (continued)

- Reinstate defects, voids and blowholes in the bonding zones with a FORSPEC concrete repair system such as FORBUILD 100 or FORCRETE 100, finished flush and cured.
- Confirm concrete strength and soundness across the full bonding width on both faces.
- Where a recessed installation is specified, saw-cut the chase to 5 mm width and 15 mm depth over the full joint line at tape width, then clean the groove thoroughly by vacuum and air blower.

## Tape Preparation

- Measure the joint lengths accurately and pre-cut the required sections of EXPANDOFLEX before installation begins.
- Use a clean utility knife or heavy-duty shears — avoid jagged or frayed edges, which initiate tears.
- Where longer spans are required, heat-weld sections together with a hot air gun, aligning the tapes edge-to-edge and welding under overlapping pressure.
- Confirm that welded sections are uniform in thickness and strength before installation.
- In cold site conditions, warm the tape slightly to improve flexibility and ease of installation.

## Adhesive Preparation — PROBOND 1100

- PROBOND 1100 is a two-part epoxy adhesive. Combine Part A and Part B in a clean container using a low-speed mechanical mixer.
- Mix at 300–400 rpm for 2–3 minutes until a smooth, consistent, streak-free blend is achieved.
- Avoid whipping air into the mix. Scrape the sides and base of the container to ensure complete incorporation.
- Pot life is approximately 30–40 minutes at 20°C — restatement at 25°C and 50% RH is outstanding. Use immediately after mixing.
- Never re-temper, extend or add solvent. Discard any material that has begun to gel.
- Refer to the PROBOND 1100 Technical Data Sheet and Safety Data Sheet before use.

## Installation — Standard Surface

- Apply PROBOND 1100 to both sides of the joint with a steel trowel at 1.0–1.5 mm thickness, matching the application width to the tape size — 40 mm adhesive width per side for 200 mm tape.
- Do not apply epoxy in the centre of the joint where the tape must flex.
- Centre the tape over the joint, ensuring the corrugated middle zone remains completely unbonded.
- Press the flanges into the epoxy firmly, working from the centre outwards to expel air.
- Roll the tape with a pressure roller to ensure full contact and even adhesive spread across the bonding width.
- Apply a second capping layer of PROBOND 1100 at 1.0–1.5 mm over the embedded flanges, extending beyond the tape edge. Do not cap the central movement zone.
- Inspect for air entrapment, adhesive starvation at the flange edges and any adhesive that has encroached onto the movement zone. Rectify before the epoxy gels.

## Installation — Recessed Saw-Cut

Specify the recessed installation where a flush finish or mechanical anchorage is needed — high-load areas, exposed joints, driveways and traffic-prone transitions.

- Saw-cut a chase 5 mm wide and 15 mm deep along the full joint line at tape width, then vacuum and air blow the groove clean.
- Apply PROBOND 1100 into the saw-cut reglet to a minimum 5 mm dry film thickness.
- Simultaneously apply PROBOND 1100 to the concrete face on both sides of the joint — only on the bonding flanges of the tape, never on the central movement zone.
- Insert the EXPANDOFLEX flange into the epoxy-filled groove, then press and roll to ensure full contact.
- Apply an epoxy capping layer at 5 mm DFT over the embedded flange on each side, extending over the tape surface outside the reglet. Do not cover the central flexible zone.



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## Corners, Upturns and Wall Terminations

- Internal corners: pre-cut the tape at 45°, pre-heat with a hot air gun and form to shape.
- Vertical transitions such as floor-to-wall: fold the tape vertically using a gradual radius — never force or kink the material.
- Apply epoxy to both surfaces independently, ensuring at least 40 mm bonding width per face.
- Preformed corner sections or field-fabricated heat-welded corner pieces are recommended at all corners.
- Maintain consistent tape placement and full roller pressure at every transition, and avoid creating stress points in the material.

## High-Movement Joints

- Where movement is expected to exceed the typical expansion range — seismic zones, bridge slabs and similar — the design must allow for tape deflection into the joint void.
- Install EXPANDOFLEX with a pre-formed downturn loop into the joint void. The loop geometry must be defined by the project engineer.
- The loop must be suspended free of adhesive so it can accommodate vertical and horizontal expansion.
- Bond only the side flanges with PROBOND 1100.
- The downturn portion must hang freely within the joint void so that no stress is transferred to the bonded flanges.
- Engineer review of joint width, movement class and expected displacement is mandatory before installation.

## Drying, Curing and Testing Times

Cure is governed by the PROBOND 1100 epoxy adhesive. All times below are stated at 25°C and 50% RH except where a source reference condition is noted; low temperature extends every stage.

| STAGE (AT 25°C, 50% RH) | TIME |
|---|---|
| **PROBOND 1100 pot life** | Approx. 30–40 minutes at 20°C † — use immediately after mixing |
| **Tape placement window** | While the epoxy remains wet and workable * |
| **Capping layer application** | Immediately after the tape is rolled into the bed * |
| **Protection from rain, moisture, load and vibration** | Approx. 24–48 hours at 20°C † — longer at lower temperatures |
| **Return to service** | After full epoxy cure — refer to the PROBOND 1100 TDS |
| **Flood testing** | After full epoxy cure and inspection of the installed detail * |

† Pot life and protection period are stated at 20°C in the source data and are to be restated at 25°C and 50% RH — refer to the Change Register. Use warning tape, cones or temporary barriers around installed areas throughout the protection period. * Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

## Clean Up

Clean tools and mixing equipment with FORSPEC EPOXY CLEANER immediately after use, where both component Safety Data Sheets permit the solvent in question. Once cured, the epoxy and the tape can only be removed by mechanical means. Never flush epoxy into drains or sewers.

## Container and Waste Disposal

Allow epoxy residues to fully cure before disposal. Dispose of cured residues, tape offcuts, cores and packaging in accordance with State and local requirements, and route unused epoxy components to an authorised waste collection point per Section 13 of the PROBOND 1100 Safety Data Sheets. Do not reuse contaminated packaging.



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## Quality Records

Record the batch numbers and roll identifiers of all FORSPEC EXPANDOFLEX JOINT TAPE and PROBOND 1100 used, joint locations, widths and movement class against the engineer's design, substrate preparation method, installation type (standard or recessed), adhesive bonding width and thickness achieved per face, weld locations and weld inspection results, downturn loop geometry where installed, protection period observed, and final inspection results, as part of the project quality assurance records.

## Storage

Store rolls flat or upright on their cores in a cool, dry environment away from direct sunlight and freezing conditions. Shelf life: 24 months from the date of manufacture in unopened original packaging when stored as specified.

## Safety Precautions and First Aid

Refer to the current Safety Data Sheets before use — for the tape and for both components of PROBOND 1100. The tape is supplied in a cured, non-reactive form; the principal hazards arise from the uncured epoxy adhesive, from cutting tools and from hot air welding equipment. Uncured epoxy causes skin and eye irritation and may cause skin sensitisation. Wear nitrile gloves, goggles and long-sleeved protective clothing, and ensure good airflow in enclosed areas — use respiratory protection where ventilation is inadequate or where the SDS and workplace risk assessment require it. Avoid all skin contact with uncured epoxy. Use a sharp blade with a cutting board and cut away from the body. Keep hot air equipment clear of solvent vapour and combustible material and allow heated surfaces to cool before handling. Do not eat, drink or smoke when handling; wash hands before breaks and after work.

First aid — Eyes: hold eyelids apart and flush continuously with running water for at least 15 minutes and seek immediate medical attention. Skin: remove contaminated clothing and wash uncured epoxy off immediately with soap and water; seek medical advice if irritation or rash occurs. Inhaled: move to fresh air and keep comfortable; seek medical attention if breathing difficulty occurs. Swallowed: do NOT induce vomiting; rinse mouth and seek immediate medical attention. Burns from welding equipment: cool under running water for 20 minutes and seek medical attention for anything beyond a minor burn. 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.

## Warranty

Standard Product and Performance Warranty: Forspec Protective Coatings Pty Ltd as Trustee for Forspec Protective Coatings (ABN 11 204 033 631) warrants that FORSPEC EXPANDOFLEX JOINT TAPE 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.

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## 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 25/08/2026 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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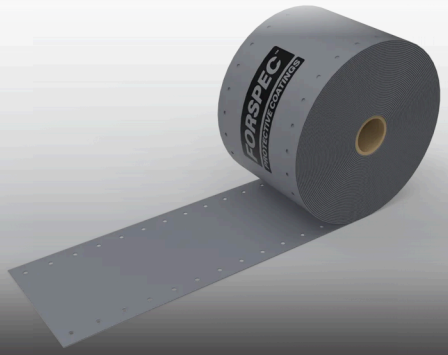
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