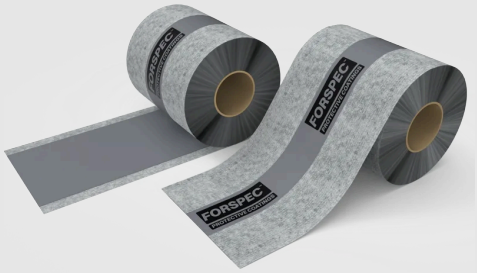
FORSPEC EXPANDOFLEX FT JOINT TAPE.



Technical Data Sheet | Felt-Laminated Tpe Expansion Joint Tape for Structural and Movement Joints | Issue date: 26 August 2026

Description

FORSPEC EXPANDOFLEX FT JOINT TAPE is a felt-laminated thermoplastic elastomer expansion joint tape engineered for critical structural and movement joints where the joint must be waterproofed and then integrated into a liquid-applied or sheet membrane system. A high-strength central elastomeric core carries the movement — transversely flexible to absorb displacement across the joint, longitudinally stable so the tape holds its line along the run — while polyester felt bonded to both edges provides the mechanical key that the waterproofing membrane bonds into. That felt face is what distinguishes it: the membrane terminates into the tape rather than onto it, producing a continuous waterproofed transition with no cold joint between tape and membrane. The elastomeric underside is epoxy-anchored to the concrete with PROBOND 1100, transferring no stress to the free-moving centre zone. Chemically resistant, root-resistant, UV stable and thermally flexible from −30°C to +80°C, it is heat-weldable on site for continuous runs and field-formed corners.

Advantages

- Dual felt-laminated flanges — the membrane bonds into the tape, giving a seamless termination.
- High-elongation elastomeric core — accommodates structural movement without stressing the bond line.
- Transversely flexible and longitudinally stable — absorbs joint movement while holding its line along the run.
- Root-resistant — suitable for planters, green roofs and landscaped podium construction.
- Chemically resistant — suited to wastewater and aggressive ground conditions.
- UV stable and thermally flexible from −30°C to +80°C.
- Compatible with polyurethane, polyurea, bitumen-based and acrylic waterproofing systems.
- Heat-weldable on site for monolithic continuity and field-fabricated corners.

Uses

- Primary movement joints (PMJ) and transverse movement joints (TMJ).
- Structural movement joints in above- and below-ground construction.
- Base-to-wall transitions and floor-to-wall upturns.
- Tunnel, retaining wall and podium slab joints.
- Planter and green roof joints requiring root resistance.
- Joints requiring integration into a liquid-applied or sheet membrane system.

Compliance Status

No accredited third-party test report is presently held for FORSPEC EXPANDOFLEX FT JOINT TAPE. All performance characteristics stated in this document are manufacturer data and are asterisked accordingly. Verification testing has been programmed. Values are not to be relied upon for engineering design without written confirmation from FORSPEC Technical Services. Joint design, movement allowance and deflection dimensions must be confirmed by the project structural engineer in every case.

contact.
(02) 8021 3517 info@forspec.com.au 22/872 Canterbury Road, Roselands 2196 NSW (Head Office) www.forspec.com.au

Technical Data

PROPERTY	VALUE	BASIS
Form	Felt-laminated thermoplastic elastomer tape	—
Construction	High-strength TPE core with polyester felt bonded to both edges	—
Movement behaviour	Transversely flexible, longitudinally stable	*
Service temperature	−30°C to +80°C	*
Root resistance	Root-resistant	*
Chemical resistance	Resistant to wastewater and aggressive ground conditions	*
Ultraviolet stability	UV stable	*
Bonding adhesive	PROBOND 1100 epoxy	—
Epoxy bonding width	Minimum 40 mm per face, matched to the tape flange (typically 40 mm or 50 mm)	—
Epoxy layer thickness	1.0–1.5 mm, bedding and capping	—
Installation temperature	5–35°C (ambient and substrate)	—
Cure before movement or membrane	24–48 hours at 20°C	—

* Manufacturer characteristic values pending accredited verification testing — not for engineering design without written confirmation from FORSPEC Technical Services.

Limitations

- Only the bottom elastomeric side is bondable with epoxy. Never apply adhesive to the felt face.
- Never allow epoxy to contact the felt-laminated upper surface or bridge the central movement zone — epoxy across the centre destroys the joint's ability to move.
- Do not install below 5°C or above 35°C.
- Not a load-bearing joint and not an expansion joint coverplate. It waterproofs the joint; it does not carry load.
- The joint design must conform to the movement allowance and deflection dimensions specified by the project structural engineer.
- Do not coat the central movement zone with membrane.
- Do not dilute or re-mix cured PROBOND 1100 epoxy.
- Not a substitute for correct joint design — a tape cannot rectify an undersized or wrongly positioned joint.

Substrate Preparation

- Mechanically prepare all concrete surfaces by diamond grinding or shot blasting to remove laitance and surface contamination and to open a bonding profile.
- All surfaces must be dry, structurally sound and free from dust, curing agents, form oil, sealers and any contaminant that could inhibit adhesion.
- Pre-mark the joint centreline and alignment guides before any epoxy is mixed.
- Mask off the bonding zones where a neat epoxy line is required.
- Reinstate damaged or spalled concrete at the joint arrises with the FORSPEC concrete repair system such as FORBUILD 100 or FORCRETE 100, and allow to cure fully.

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Tape Preparation

- Measure and pre-cut the tape to match the joint layout before mixing any epoxy.
- Cut with sharp shears, keeping the felt layer intact and undamaged.
- To join lengths, overlap by a minimum of 50 mm and bond the non-felt undersides with PROBOND 1100. Never epoxy felt to felt.
- Alternatively, heat-weld the thermoplastic core with a hot air gun. Never use an open flame.

Adhesive — PROBOND 1100

- Mix Part A and Part B thoroughly at low speed until uniform in colour with no streaking.
- Working time is 30–40 minutes at 20°C and shortens as temperature rises — mix only what can be placed within the window.
- Do not dilute. Do not re-mix or re-temper epoxy that has begun to cure.
- Refer to the current PROBOND 1100 Technical Data Sheet for full mixing, handling and safety requirements.

Installation — Structural Joints

- Using a steel trowel or flat notched spreader, apply a uniform 1.0–1.5 mm layer of PROBOND 1100 to each side of the joint. The coverage width matches the tape flange — typically 40 mm or 50 mm.
- Work the epoxy into the surface pores to maximise mechanical key, and confirm the adhesive has fully wetted out the substrate.
- While the epoxy is still wet, position the tape centrally over the joint against the pre-marked centreline.
- Press only the bottom elastomeric side into the epoxy. Keep epoxy off the felt upper surface and out of the central movement zone.
- Seat the tape with firm hand pressure, then roll the entire flange area with a steel or rubber pressure roller to eliminate trapped air and achieve full bond.
- Apply an epoxy capping layer over the embedded flanges at 1.0–1.5 mm thick, extending 20 mm past the outer edge of the tape. Do not allow epoxy to spill onto the felt or bridge the movement zone.
- Allow to cure undisturbed in a protected zone for 24–48 hours depending on ambient conditions.
- Checks: tape centred on the joint; both flanges fully bedded with no trapped air; felt clean and free of epoxy; central movement zone completely free of epoxy; capping layer continuous and correctly extended.

High Movement Detailing

Where the joint is subject to excessive expansion or contraction:

- Introduce a downturn loop into the joint void to absorb the additional movement.
- Bond the side flanges only — the centre flexible zone stays entirely free of epoxy.
- The structural engineer must confirm the movement allowance and the deflection dimensions before installation proceeds.

Corners, Upturns and Transitions

- Internal corners: cut the tape at 45° to relieve internal stress and ease directional forming. Pre-soften and shape the thermoplastic body with heat without damaging the felt.
- Use a hot air gun — never an open flame — applying consistent, moderate heat across the back of the tape and working it gently around the corner. Avoid folding or creasing, which compromises elongation.
- External corners and wall-to-wall transitions: mitre and hot-air weld the sections. Where welding is not possible, form a 50 mm overlap and bond both non-felt undersides with PROBOND 1100.
- Vertical transitions such as floor-to-wall junctions: support the upturn with temporary fixings — masking tape, pins or magnets — until the epoxy has cured.
- Apply epoxy separately to the horizontal and vertical faces, keeping each bonding zone uniform at a minimum 40 mm width per face and 1.0–1.5 mm thickness.
- Keep the felt surface clean, undamaged and free from epoxy intrusion so the waterproofing membrane can adhere fully to the flange.
- Reinforce corner zones with additional fabric layers where the membrane manufacturer specifies it, to improve tensile strength and water cut-off.

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Overlaps and Joint Connections

- For continuous runs, overlap the bottom non-felt surfaces by 50 mm and bond with PROBOND 1100.
- Never epoxy felt to felt.
- Ensure full adhesive spread across the overlap, and clamp or roll during curing.
- Heat-welding across the thermoplastic centre is permitted as an alternative and gives monolithic continuity.

Waterproofing Membrane Integration

- After the epoxy has cured for 24–48 hours, apply the waterproofing membrane directly onto the felt-laminated upper surface.
- Compatible with polyurethane, polyurea, bitumen-based and acrylic waterproofing systems.
- Carry the membrane a minimum of 100 mm beyond each edge of the tape.
- Press the membrane firmly into the felt so it keys into the fibres, and reinforce transitions where the membrane system requires it.
- Never coat over the central movement zone.

Protection During Cure

- Allow 24–48 hours cure at 20°C before subjecting the joint to movement, membrane application or mechanical stress.
- Protect from moisture, dust and foot traffic throughout the cure period.

Consumption

Tape is consumed at the run length of the joint plus 50 mm for every overlap. PROBOND 1100 consumption is calculated from the bonding geometry: two bedding zones plus two capping zones per metre of joint. At a 40 mm flange and 1.25 mm average epoxy thickness, bedding consumes approximately 0.10 L per linear metre and capping a further 0.15 L per linear metre — approximately 0.25 L per linear metre in total. At a 50 mm flange, allow approximately 0.31 L per linear metre. Confirm against the current PROBOND 1100 Technical Data Sheet and allow 10–15% for wastage.

Clean Up

Clean tools and mixing vessels with FORSPEC EPOXY CLEANER immediately after use, or with xylene where the Safety Data Sheets for both epoxy components permit its use. Cured epoxy and cured tape adhesive can only be removed mechanically. Never discharge uncured epoxy, solvent or wash water into drains, soil or waterways.

Container and Waste Disposal

Allow epoxy residues to cure fully before disposal as construction waste. Uncured epoxy is never discharged to drainage. Offcuts of tape are disposed of as general construction waste. Empty containers are disposed of or recycled in accordance with local council requirements. Refer to Section 13 of the PROBOND 1100 SDS for detailed disposal requirements.

Quality Records

Record the batch numbers of tape and epoxy, joint locations and run lengths, epoxy bonding width and thickness achieved per face, overlap and weld locations, ambient conditions and cure times, confirmation that the felt face was left free of epoxy at every location, and the membrane overlap achieved onto each flange, as part of the project quality assurance records.

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Storage

Store rolls flat or on end in original packaging, in cool, dry conditions out of direct sunlight, protected from crushing and from contamination of the felt faces. Store PROBOND 1100 in accordance with its own Technical Data Sheet.

Safety Precautions and First Aid

The tape itself is an inert thermoplastic product. The principal hazards arise from PROBOND 1100 epoxy and from hot air welding equipment. Wear chemical-resistant gloves, protective eyewear and suitable protective clothing when handling epoxy, and ensure adequate ventilation during epoxy application. Avoid contact with skin and eyes. Hot air guns present a burn and fire risk — never use an open flame. Store away from food, heat sources and children.

First aid — Eyes: rinse immediately with plenty of water for at least 15 minutes and seek medical attention. Skin: wash with soap and water; remove contaminated clothing. Inhaled: move to fresh air; seek medical attention if discomfort persists. Swallowed: do not induce vomiting; seek medical advice. 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 Sheets for the tape and for PROBOND 1100 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 FT 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.

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.

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, a description of the defect with supporting evidence, and your contact details.

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 26/08/2026 and is valid for three years from the date of issue unless superseded by a later revision.

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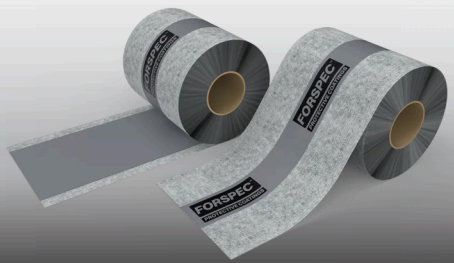
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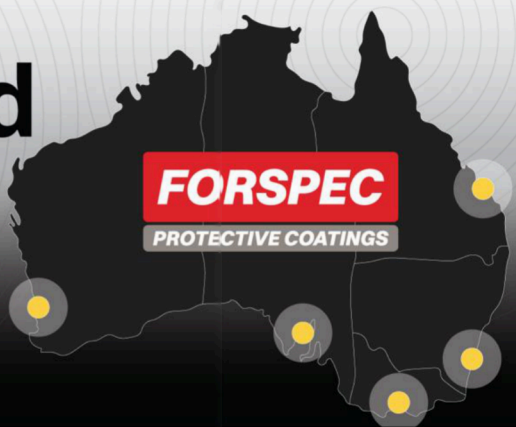
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