UNIFIX TPE-FELT

EXPANSION JOINT TAPE WITH FELT CARRIER



Product Features

UNIFIX TPE-FELT is a high-performance expansion joint waterproofing tape with a felt carrier. It has a flexible thermoplastic elastomer (TPE) centre section, laminated with polyester (PES) felt along both sides. The elastic centre takes up the movement of the joint, while the felt edges give the adhesive a mechanical key and keep the tape stable along its length during installation.

UNIFIX TPE-FELT is installed with **UNISTICK EA 5537** epoxy adhesive, which anchors the felt edges to the concrete substrate and forms a watertight seal across the joint that accommodates structural movement and resists water pressure.

Use **UNIFIX TPE-FELT** for moving expansion joints. For non-moving construction joints, **UNIFIX TPE-CJ FELT** is the cost-saving choice.

Advantages

Resists water pressure above 5 bar
Good dimensional stability under tension
Good flexibility. Can accommodate structural movements
Felt on both sides for a strong bond with the adhesive
Resistance to plant roots
High UV resistance

Fields of Application

Expansion Joints	Building Abutments & Interface Joints
Parapets	Swimming Pool
Wide and Irregular Cracks	Basements & Underground Structures
Roof Decks & Terraces	Water Reservoirs

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UNIFIX TPE-FELT

Physical Properties

Material	:	Thermoplastic elastomer (TPE) core with polyester (PES) felt edges	
Colour	:	Grey	
Size & Packaging	:	UNIFIX TPE-FELT UNISTICK EA 5537	: 300mm x 1mm x 25m : 5kg / set
Roll Length	:	UNIFIX TPE-FELT	: 25m / roll

Technical Properties

Property	Test Method	Values
Thickness, (mm)	DIN EN 1849 - 1	1 mm
Tensile Strength (Transverse)	EN-ISO 527-3	4.7 MPa
Elongation at Maximum Load (Transverse)	EN-ISO 527-3	580 %
Tear Propagation Strength (Transverse)	EN-ISO 12310-2	48 N
Hardness	ISO 868	70 Shore A
Water Pressure Resistance	EN 1928	> 5 Bar
Service Temperature	SIA V280/3+4	-30 / + 80 °C
Chemical Resistance	Water-based and bitumen-based foundation insulations, sea water, waste water, UV rays, hydrolysis and microorganisms	

Important Note / Special Note

- Do not move the tape until the epoxy adhesive at the edges is fully cured.
- Protect the surface against water and mechanical damage until fully cured.
- Curing time of adhesive changes according to weather conditions.
- Do not apply during rain.
- Protect applied materials from rain, freezing, foot traffic, and continuous high humidity until completely dry.

Shelf Life & Storage

UNIFIX TPE-FELT has a shelf life of **24 months** when stored unopened in its original packaging in a dry, cool place away from direct sunlight.

Health & Safety

UNIFIX TPE-FELT tape presents no health hazard in normal handling. **UNISTICK EA 5537** is an epoxy adhesive: wear gloves and goggles, avoid skin and eye contact, and follow its safety data sheet.

This technical data sheet is given in good faith and does not guarantee the application work.
All Unity Reliance technical data sheets & method statements are updated on a regular basis and can be subject to change without notice.
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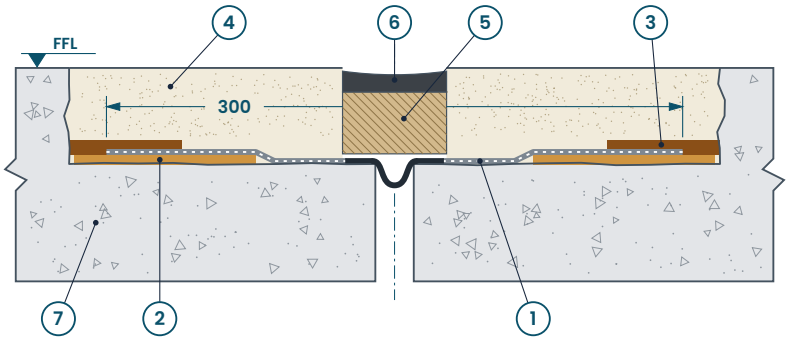
UNIFIX TPE-FELT

Installation Procedures

1 Surface Preparation | 2 UNISTICK EA 5537 Application | 3 Application

TYPICAL SECTION – CONCEALED EXPANSION JOINT

NOT TO SCALE



Dimensions in mm. Layer thicknesses exaggerated for clarity.

1. **UNIFIX TPE-FELT, 300 mm wide** elastic centre left unbonded over joint
2. **UNISTICK EA 5537 - 1st layer** 1.0 - 1.5 mm thick, min. 50 mm per side
3. **UNISTICK EA 5537 - 2nd layer** over felt edge, min. 20 mm past its edge
4. **Non-shrink grout** both sides of the fillerboard, flat to FFL
5. **UNIFLEX PE fillerboard** over the elastic centre, no grout on it
6. **UNISEAL PU joint sealant** over the fillerboard, at FFL
7. **Existing concrete** hacked back to form the recess

Step 1
SURFACE PREPARATION

UNIFIX TPE-FELT is concealed in the concrete, below finished floor level (FFL). For repair work, hack the existing concrete on both sides of the joint to form a recess. Clean the surface of dust, curing compound, oil and grease, and repair unsound concrete with a repair mortar.

Step 2
UNISTICK EA 5537 APPLICATION

UNISTICK EA 5537 is two-component. Mix **Component A (3.4 kg)** and **Component B (1.6 kg)** with a low-speed mixer until homogeneous.

Using a trowel or spatula, apply **UNISTICK EA 5537** about **1.0 – 1.5 mm** thick on both edges of the joint, at least **50 mm** wide on each side. Work the adhesive well into the substrate to ensure a strong bond.

Step 3
TAPE APPLICATION & COVERING

Cut the tape to length. Where lengths must be joined, weld them with a hot-air gun before application; **UNISTICK EA 5537** cannot be used for splicing. Lay **UNIFIX TPE-FELT** onto the adhesive and press with a roller for full contact between the felt and the adhesive.

Apply a second layer of **UNISTICK EA 5537**, **1.0 – 1.5 mm** thick, over the felt edges of the tape, overlapping the tape edge by at least **20 mm**. Do not move, lift or load the tape, and protect it from water, until the adhesive has fully cured.

Place **UNIFLEX PE** fillerboard over the elastic centre, then fill the recess on both sides with non-shrink grout, flat with the FFL surface. Grout must not sit on the elastic centre, so the joint stays free to move. When the grout has cured, seal over the fillerboard with **UNISEAL PU** joint sealant.

Note: The application temperature should be between 5°C and 55°C. Application procedures may vary slightly depending on site conditions; the steps above are general guidelines for the application of the waterproofing system.

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