



Mapeband TPE™

FOR PROFESSIONAL USE ONLY

Flexible Waterproof Tape for Expansion and Movement Joints

DESCRIPTION

Mapeband TPE is a professional-grade, highly durable and flexible band for sealing and waterproofing expansion joints and cracks subject to movement. Available in two sizes, it can accommodate movement up to 7/32" (5.5 mm) as *Mapeband TPE 170* and up to 13/32" (10.5 mm) as *Mapeband TPE 325*.

FEATURES AND BENEFITS

- *Mapeband TPE* remains permanently flexible even at low temperatures.
- *Mapeband TPE* provides exceptional durability under UV-ray exposure.
- *Mapeband TPE*'s properties provide excellent resistance to alkalis, bitumen, diluted lye, mildly acidic and salt solutions.
- Excellent for ensuring waterproofing over joints and cracks that may exhibit movement up to 7/32" (5.5 mm) as *Mapeband TPE 170* and 13/32" (10.5 mm) as *Mapeband TPE 325*
- Easily installed and compatible with *Planibond® AE*, *Planibond AE Fast*, *Mapelastick®* and *Mapelastick Smart*, as well as with urethane and epoxy-based waterproofing membrane systems

WHERE TO USE

- Flexible waterproofing seal for expansion joints subject to large amounts of in-service movement
- Flexible waterproofing seal for tunnels, roadwork applications, etc.
- Sealing expansion joints in prefabricated panels
- Sealing structural joints in facades
- Sealing joints in hydraulic structures, such as irrigation canals, containment basins, drains and pipes

- Waterproofing joints in bridges and roadwork
- Sealing vertical to horizontal terminations

SUITABLE SUBSTRATES

- Properly prepared concrete, metal (to a near white finish) and wood substrates that have been properly prepared (cleaned and dry) and exhibit a maximum concrete surface profile (CSP) of #5

SURFACE PREPARATION

- Surfaces must be free from oil, grease, paint, dust, scale and friable materials, and must be in-plane.
- Paint and toppings must be removed by abrasive blasting or grinding. This operation is critical for surfaces that previously have been treated with polyester, epoxy or polyurethane resin, or that are made from glassy material.
- If *Mapeband TPE* is to be applied on metallic surfaces, remove all traces of rust, paint, grease, etc., by abrasive blasting down to bare metal.
- When *Mapeband TPE* is applied, the surface must be perfectly dry.

PRODUCT APPLICATION

General use

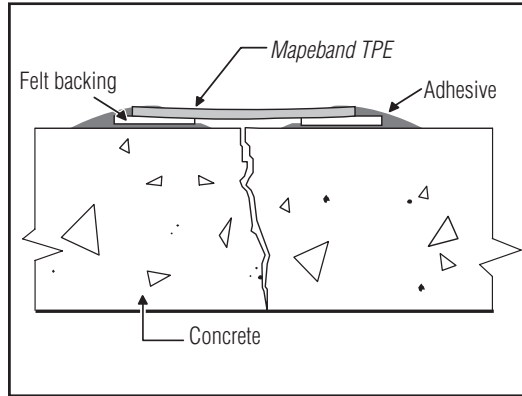
Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

1. Apply masking tape along the outside perimeter of the joint or crack to obtain an area 0.4" (1 cm) wider than the width of the *Mapeband TPE* tape.
2. Spread the adhesive used for bonding (Figure 1) within masked area, choosing *Planibond AE*, *Planibond AE Fast*, *Mapelastick* or *Mapelastick*



Smart according to the type of project to be handled. (See the associated Technical Data Sheet regarding material preparation.) Uniformly apply the adhesive at a thickness of 1/32" to 5/64" (1 to 2 mm) to the substrate where the "felt" portion of *Mapeband TPE* will make substrate contact. Avoid applying the adhesive inside the joint.

Figure 1

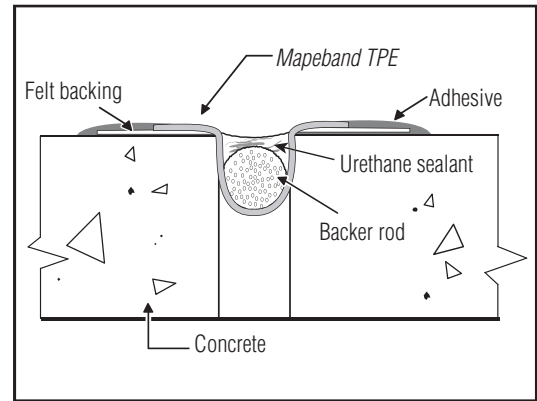


3. Lay *Mapeband TPE* into the adhesive. Press and smooth with a trowel to ensure proper bonding. Use a roller or finishing tool to remove all wrinkles, creases or air bubbles, and ensure even contact with substrate. Butt joints or "T" joints between two strips of *Mapeband TPE* must be carried out by overlapping and bonding the central part of *Mapeband TPE* for at least 2" (5 cm), using a PVC adhesive (Figure 4).
4. To make the "cold-welding" of the parts in *Mapeband TPE* easier and firmer, press lightly with a flat carpeting roller (Figure 5).
5. Overlap the *Mapeband TPE* edge with additional *Planibond AE*, *Planibond AE Fast*, *Mapelastic* or *Mapelastic Smart* while the first application is still fresh, completely covering the fabric strip with the new layer of adhesive. Smooth the product with a flat trowel. If using *Planibond AE* or *Planibond AE Fast* for bonding and finishing with a cementitious material, seed the exposed *Planibond AE* or *Planibond AE Fast* to rejection with sand immediately after smoothing.
6. Once the second layer of *Planibond AE*, *Planibond AE Fast*, *Mapelastic* or *Mapelastic Smart* has been applied, slowly remove the masking tape. *Mapeband TPE* must be protected against damage (such as perforation) during the application process.

Treatment of movement joints

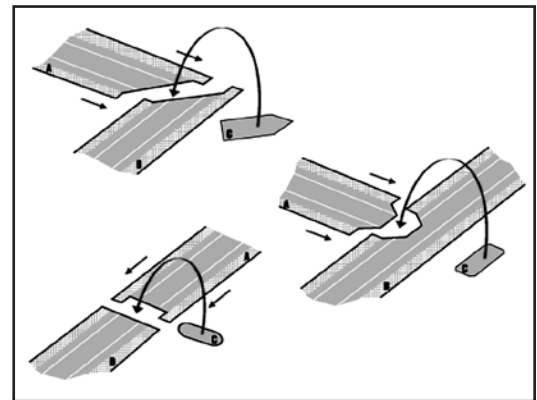
If high levels of movement are foreseen, *Mapeband TPE* must be laid by forming an upside-down "Ω" (omega) shape on the inside of the joint. (See Figure 2.)

Figure 2



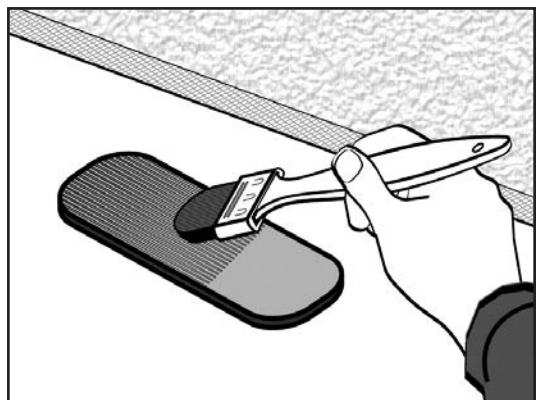
Joints between strips of *Mapeband TPE* must be carried out as illustrated in Figure 3, according to the type of joint to be formed (butt, corner or "T" joint).

Figure 3



Butt joints or "T" joints between two strips of *Mapeband TPE* must be carried out by overlapping and bonding the central part of *Mapeband TPE* for at least 2" (5 cm), using a PVC adhesive (Figure 4).

Figure 4



To make the "cold-welding" of the parts in *Mapeband TPE* easier and firmer, press lightly with a flat carpeting roller (Figure 5).

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Product Performance Properties

Laboratory Tests	Results
Breakage strength – EN ISO 527-1	> 650 psi (4.5 N/mm ²)
Elongation at breakage – EN ISO 527-1	> 650%
Low-temperature bending – SIA V280/3	< -22°F (-30°C)
Resistance to atmospheric agents and ultraviolet rays – SIA V280/10	> 5,000 h
Resistance to roots – SIA V280/11	No root penetration
Inflammability class – DIN 4102/1	B2
Waterproofing level – EN 1928-B	< 87 psi (0.6 N/mm ²)
Water vapor diffusion resistance coefficient – SIA V280/6	About 30,000 μ
Perforation resistance – SIA C280/15 (500 g from dropped height)	> 19.6" (49.8 cm)
Resistance to temperature	-4°F to 176°F (-20°C to 80°C)
Maximum elongation of expansion zone	<i>Mapeband TPE 170: 7/32" (5.5 mm)</i> <i>Mapeband TPE 325: 13/32" (10.5 mm)</i>

Shelf Life and Product Characteristics

Shelf life	2 years in original, unopened packaging at 73°F (23°C)
Tape width	<i>Mapeband TPE 170: 6.7" (17 cm)</i> <i>Mapeband TPE 325: 12.8" (32.5 cm)</i>

CSI Division Classification

Flexible Flashing	07 65 00
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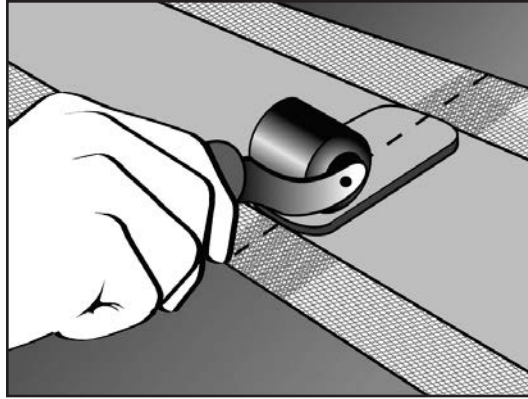
Packaging

Size
Box: 98 ft. x 6.7" (29,9 m x 17 cm) roll
Box: 98 ft. x 12.8" (29,9 m x 32.5 cm) roll

Approximate Coverage

Coverage
98 lineal ft. (29.9 m) per roll

Figure 5



LIMITATIONS

- Substrate and ambient temperatures must be between 45°F and 86°F (7°C and 30°C).
- Verify that the substrate is dry, smooth (not irregular) and free of bond-inhibiting or bond-breaking materials such as laitance, dirt, curing compounds and dust.
- Repair all cracks and treat joints correctly to ensure system performance.
- Do not use *Mapeband TPE* if it will come into contact with mineral oil, gasoline or strong solvents (acetone, ketones, esters and hydrocarbons).
- Protect *Mapeband TPE* against perforation.
- Only use the “cold-welding” technique to join individual pieces of tape.

Consult MAPEI's Technical Services Department for installation recommendations regarding any substrates and conditions not listed.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

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