

# ECMAFLEX JOINT TAPE

## Waterproofing Tape for Expansion Joints

### Description

**ECMAFLEX JOINT TAPE** is a flexible Thermo-plastic elastomer-based high-performance sealing system for construction, expansion, connection joints, and cracks. When fixed to the joint, it allows irregular and high movement in more than one direction, whilst maintaining a high-quality seal. Such tapes are suitable for internal and external applications under high physical demands like elasticity, tensile strength, and resistance against many chemical substances, and other atmospheric influences. It is fusible with a hot air gun and can be bonded to concrete and many other construction substrates with suitable adhesives. It complies with standard DIN EN ISO 9001: 2008.

### Areas of Application

- For sealing of wider joints and cracks in areas exposed to high water pressure and thermal movements like basements, water tanks, reservoirs, swimming pools, etc.
- Repairing and sealing of joints with high and frequent structural movement.
- Sealing joints of large concrete decks, podiums, tunnels, culverts, etc

### Advantages

- Excellent adhesion with most substrates using suitable epoxy adhesives
- Very flexible - high crack and joint bridging ability
- Good chemical resistance
- Excellent resistance to weather and UV exposure
- Resistant to root penetration
- Suitable for a wide temperature range (negative and positive)
- Hot air weldable
- Non-Toxic, can be used in contact with potable/drinking water

### Technical Specifications

Color	Grey
Available Tape width(s)	15, 20, 25, 30 & 100 cm
Thicknesses	1 mm and 2 mm
Tape roll length	20 m
Material weight (1 mm)	950g/m <sup>2</sup>
Breaking load DIN EN ISO 527-3, (L&T)	12 N/mm <sup>2</sup>
Elongation at break, DIN EN ISO 527-3	800%
Power Absorption at 25% Elasticity, DIN EN ISO 527-3	>40 N/ mm
Power Absorption at 50% Elasticity, DIN EN ISO 527-3	>45 N/ mm
Resistance to Tearing (L&T), DIN EN 12310-2	>90 N
Resistance to Impact, DIN EN 12691	Passes test
Bond Strength, DIN EN 1248	>4N/mm <sup>2</sup>
Fire Classification	B2
Resistance to positive water pressure	Up to 4 Bar
UV-Resistance: min., DIN EN ISO 4892-3	6500 h **
Service Temperature Range	- 30°C / +90°C

## Application Instruction

### Surface Preparation

All substrates shall be structurally sound, dry, and free from rust, dust, grease, oil, paint, and other contaminations. Damaged surfaces shall be repaired and leveled with structural mortars. Old Surface treatments or coatings and all loose or friable particles must be removed with a grinder to achieve textured surfaces.

**Bonding Adhesive:** To achieve a durable, watertight connection between the ECMAFLEX JOINT TAPE and the substrate, suitable epoxy adhesives like ECMABOND 520 (two-component, thixotropic) shall be used.

**Application:** After surfaces preparation, mix both components of ECMABOND 520 thoroughly and apply a layer on both sides of the joint at 1-2 mm thickness with a spatula or putty knife. The width of the applied adhesive should be 10 mm more from the edge of either side of the ECMAFLEX JOINT TAPE. Press the tape firmly within the open time of the adhesive maintaining at least 50-75 mm overlap of ECMAFLEX Joint Tape, concrete substrate, and adhesive on both sides of joints. Use masking tape alongside the joints or crack and on ECMAFLEX Joint Tape to avoid applying adhesive over the center of the ECMAFLEX JOINT TAPE and to ensure a good finish & cleanliness.

Dimensions of ECMAFLEX JOINT TAPE System				
Water Pressure (positive)	0 bar	< 0.5 bar	≤ 2.0 bar	≤ 4.0 bar
Tape thickness	1 mm	2 mm	2 mm	2 mm
Overlap bonding width	≥ 50 mm	≥ 75 mm	≥ 100 mm	≥ 150 mm

ECMAFLEX JOINT TAPE Width [mm]	Tape Thickness [mm]	ECMABOND 520 Consumption* [kg/m'] approx.
100	1	0.75
150	1	1.00
200	1	1.20
250	1	1.40
150	2	1.10
200	2	1.40
250	2	1.60
300	2	1.75

**Lap Joints** – Tape lap joints shall be made with thermal welding of tapes. Minimum Lap joints should be 50 mm. ECMAFLEX JOINT TAPE is fusible with a standard hot air gun. It is important to select a low-temperature setting (350-400°C) so that only the surface of the tape melts in order not to affect the tightness of the product. Parts to be welded must be roughened or sanded.

If the joints are to be subjected to higher positive hydrostatic water pressure, the ECMAFLEX JOINT TAPE must be supported in the joint. Hard foam filler or a joint sealant is recommended.

For exposure to negative water pressure (> 0.5 bar), the ECMAFLEX JOINT TAPE must be secured with a steel plate fixed on one side of the joint.

The ECMAFLEX JOINT TAPE must be protected from mechanical damage.

Contact ECMAS technical team for detailed application instructions/ methodology.

## **Packaging**

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1 m x 20 m rolls

## **Shelf Life**

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24 months in original unopened sealed condition.

## **Storage & Handling**

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The material should be stored in the original packaging in a cool and dry shade protected from direct sunlight. Please avoid stacking of corrugated Boxes and handle them carefully during transport.

## **Safety Precautions**

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Wear all PPEs at the time of application like Safety boots, Safety goggles Hand Gloves, and masks. Avoid direct contact with Skin and Eyes. Any direct skin contamination with the hardeners should be washed off immediately with soap and water.

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