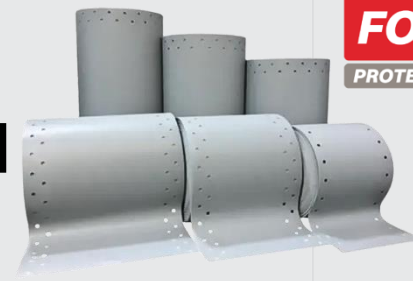


EXPANDOFLEX EXPANSION JOINT TAPE.



Technical Data Sheet

EXPANDOFLEX Thermoplastic Elastomer-Based Dilatation Tape

09/07/2024

Description

EXPANDOFLEX is a high-performance thermoplastic elastomer-based expansion joint tape designed for maximum flexibility and durability in demanding environments. Its elastic properties allow it to accommodate structural movements, making it ideal for sealing construction and expansion joints in a wide range of applications, including tunnels, swimming pools, underground structures, and wastewater units. The material is highly resistant to UV rays, chemicals, plant roots, and bacterial degradation, ensuring long-term durability and reliable waterproofing even in extreme conditions. When paired with PROBOND 1100 epoxy adhesive, EXPANDOFLEX forms a secure, permanent bond, providing exceptional protection against moisture and environmental stresses across various substrates such as concrete, steel, and masonry.

Advantages

- **Exceptional Flexibility:** EXPANDOFLEX maintains permanent elasticity, allowing it to accommodate structural movements without cracking or losing its sealing properties, making it ideal for construction and expansion joints.
- **Durable and Long-Lasting:** Made from a high-quality thermoplastic elastomer, it offers outstanding resistance to environmental factors such as UV radiation, chemicals, and harsh weather conditions, ensuring long-term durability.
- **Chemical and Root Resistance:** Highly resistant to plant roots and bacterial attacks, making it ideal for underground and moisture-exposed environments such as tunnels and foundations.
- **Easy Application:** The application process is straightforward. Simply prepare the surface by ensuring it is clean and dry. Apply PROBOND 1100 epoxy adhesive in a layer of 1.0 – 1.5 mm thickness to the joint surface using a trowel. Lay the pre-cut EXPANDOFLEX tape onto the adhesive and press firmly using a roller to ensure full adhesion. Then, apply a second layer of PROBOND 1100 epoxy adhesive on top of the tape for added protection, allowing it to cure fully.
- **Versatile Application Areas:** Suitable for both horizontal and vertical installations, EXPANDOFLEX can be used across various construction sites, from swimming pools to tunnels, ensuring a seamless waterproofing barrier.

Test	Standard	Unit	Value
Tensile Strength (Transverse)	EN-ISO 527-3	MPa	4,7
Tensile Strength (Longitudinal)	EN-ISO 527-3	MPa	4,8
Maximum Load Elongation (Transverse)	EN-ISO 527-3	%	580
Maximum Load Extension (Longitudinal)	EN-ISO 527-3	%	582
Tear Propagation Resistance (Transverse)	EN-ISO 12310-2	N/mm ²	48
Tear Propagation Resistance (Longitudinal)	EN-ISO 12310-2	N/mm ²	42
Hardness	ISO 868	Shore A	70
Epoxy peeling resistance	DIN 16860	N/10mm	>20
Chemical resistance	Water-Based And Bitumen-Based Basic Insulations Sea Water, Wastewater, UV Rays, Hydrolysis, Microorganism	N/mm ²	42
Color	RAL 7040		
Water Pressure Resistance	EN 1928	Bar	>5
Cold forming	SIA 280/3	-	No cracking at -30°C
Service Temperature	SIA V280/3+4	-	30 / +90°C
Thickness		Mm	1-1,25-1,5
Width		Cm	15-20-25-30-35-40
Weight		Gr/Cm ²	1,050 +/-5

Uses

Expansion Joints (EJ): EXPANDOFLEX is ideal for sealing expansion joints, allowing for thermal and structural movement in buildings and infrastructure without compromising waterproofing.

Construction Joints (CJ): Designed for sealing construction joints between concrete pours, EXPANDOFLEX provides a durable, flexible barrier to prevent water infiltration and structural damage.

Primary Movement Joints (PMJ): Ensures reliable waterproofing and elasticity in joints that experience

significant movement, accommodating both thermal expansion and contraction.

Temporary Movement Joints (TMJ): Suitable for use in temporary movement joints, EXPANDOFLEX allows flexibility and sealing for short-term expansion and contraction needs during construction phases.

Control Joints: Used to seal control joints, preventing the cracking of concrete surfaces due to shrinkage or movement, while maintaining elasticity and waterproof integrity.

Method of Application

APPLICATION OF PROBOND 1100:

PROBOND 1100 epoxy adhesive consists of two components mixed in a 1:1 ratio. Measure equal parts of Component A and Component B and combine them using a low-speed mixer until a homogeneous mixture is achieved. Using a trowel or spatula, apply PROBOND 1100 to the dilatation surfaces at a thickness of approximately 1.0 – 1.5 mm. For 20 cm wide tape, ensure the application width is at least 40 mm, and for 30 cm wide tape, at least 50 mm. It's crucial that the adhesive is thoroughly absorbed into the substrate to achieve optimal bonding.

APPLICATION OF EXPANDOFLEX TAPE:

1. Preparation of the Surface:

- Ensure that the surfaces where the EXPANDOFLEX tape will be applied are clean, dry, and free from any debris, dust, or contaminants. Any existing moisture should be addressed to promote optimal adhesion.
- If necessary, use a suitable cleaner or solvent to prepare the surface, ensuring it adheres well to the adhesive.

2. Mixing PROBOND 1100: (ensure to follow the steps list above in APPLICATION OF PROBOND 1100)

- Prepare PROBOND 1100 epoxy adhesive by measuring equal parts of Component A and Component B.
- Use a low-speed mixer to combine the components until they form a homogeneous mixture, ensuring there are no unmixed areas.

3. Applying PROBOND 1100:

- Using a trowel or spatula, apply the mixed PROBOND 1100 adhesive onto the joint surface at a thickness of approximately 1.0 – 1.5 mm.
- For a 20 cm wide tape, ensure the application width of the adhesive is at least 40 mm. For a 30 cm wide tape, the width should be at least 50 mm.
- Make sure the adhesive is thoroughly absorbed into the substrate to achieve a strong bond.

4. Cutting and Preparing EXPANDOFLEX Tape:

- Measure and cut the EXPANDOFLEX tape to the required length based on the joint dimensions.
- For any sections that require splicing, use a hot air gun to heat the tape edges until they are pliable, ensuring a seamless transition without the need for PROBOND 1100 in this process.

5. Laying the EXPANDOFLEX Tape:

- Carefully place the EXPANDOFLEX tape onto the adhesive layer, ensuring it aligns correctly with the joint.
- Use a suitable roller to press down the tape, ensuring full contact between the tape and the adhesive layer. This step is vital to prevent any air pockets, which can compromise the integrity of the waterproofing seal.

6. Final Adhesive Layer:

- Once the tape is firmly in place, apply a second layer of PROBOND 1100 on top of the EXPANDOFLEX tape.
- This layer should also be applied at a thickness of 1.0 – 1.5 mm and extend at least 20 mm beyond the edges of the tape, creating a robust, overlapping seal that enhances the waterproofing performance.

7. Curing Time:

- After applying the final adhesive layer, do not move, lift, or subject the EXPANDOFLEX tape to any mechanical forces or water until the PROBOND 1100 adhesive has fully cured.
- It is important to consider that curing times may vary depending on environmental conditions; colder temperatures may prolong curing time, while warmer temperatures may shorten it.

8. Post-Application Inspection:

- After the adhesive has cured, inspect the application area for any gaps or imperfections. Ensure that the EXPANDOFLEX tape is securely bonded and that there are no exposed areas that could lead to water ingress.

Cleaning

Clean up immediately while still wet. Wipe down with solvent to clean tools & equipment. Once dry, is difficult to remove and mechanical means may be necessary. No.1. Observe all OH&S and MSDS information pertaining to safe usage and handling of solvents.

DO NOT discharge product or water from cleaning into sewer or waterways.

DO NOT touch the spill material.

Safety – Whan Handling Do Not Eat, Drink or Smoke

EXPANDOFLEX is a product that requires careful handling. Always use for the intended purpose only and observe good industrial hygiene practices. Ensure that all sources of ignition are kept away, and always apply in a well-ventilated area. When handling EXPANDOFLEX, it is important to wear appropriate Personal Protective Equipment (PPE). Change soiled work clothes and wash hands before taking breaks or at the end of the day.

In the case of **eye contact**, immediately rinse with plenty of water. If **inhaled**, move to fresh air; if discomfort persists, or if breathing difficulties occur, or if **swallowed** (do NOT induce vomiting), seek medical attention immediately. Contact a doctor or your local Poisons Information Centre (13 11 26 in Australia, 0800 764 766 in New Zealand).

In case of **emergency**, dial 000 for Police or Fire Brigade assistance. Follow local health and safety regulations, as well as

safety advice on packaging labels. For detailed information, download the Safety Data Sheet (SDS) from www.forspec.com.au

Environmental and Disposal Information:

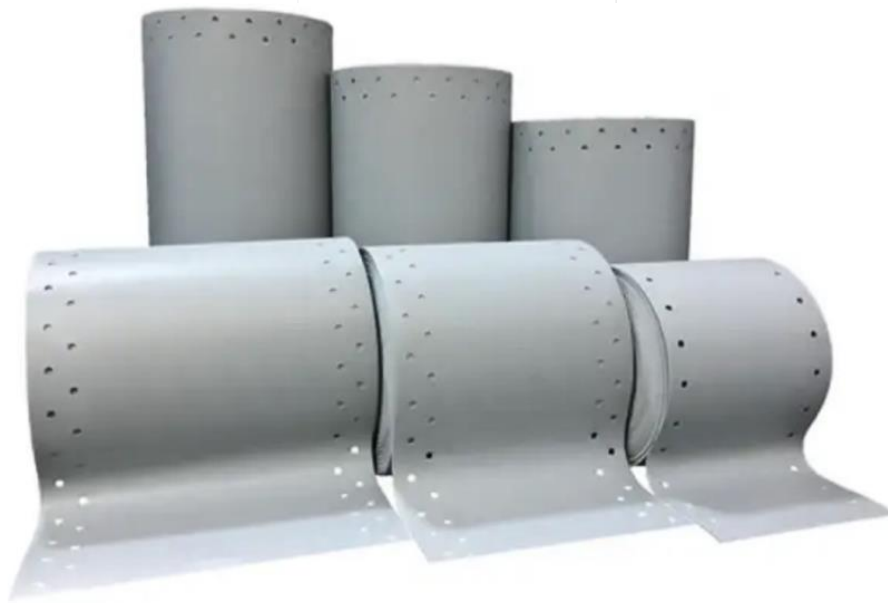
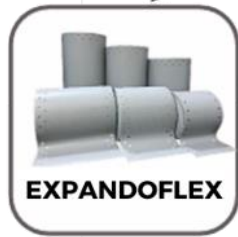
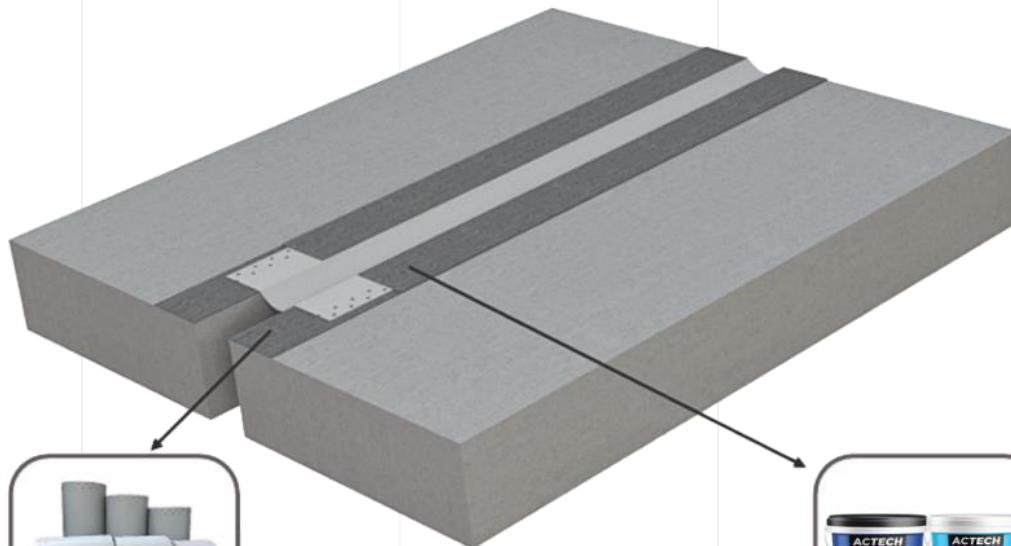
- **Keep out of reach of children.**
- **Do not allow wash water or residue from cleaning to enter drains.**
- **Do not discharge into sewers or waterways.**
- When decontaminating containers, **do not seal or stopper** as CO2 gas can build up and create pressure. Always follow the correct disposal and handling procedures.

Data Sheet

This Technical Data Sheet (TDS) and Material Safety Data Sheet (SDS) are subject to revision as necessary to ensure compliance with relevant Australian Standards and incorporate technological advancements. It is crucial to read the most current versions of the SDS and TDS before use, as application and performance data may be updated. For the latest technical information, please contact Forspec Protective Coatings at (02) 8021 3517 or email info@forspec.com.au to request a copy. The information provided is representative but does not serve as a comprehensive specification. For specific projects, we recommend consulting directly with the company for tailored specifications.

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