

SealArm Tape TPE

High performance Expansion Joint sealing system

Product Description

SealArm Tape TPE is a thermoplastic high performance water proofing Joint Tape for expansion and connection joints and cracks. It is to be installed with ReArm Bond 4031. When fixed to the joint, it allows irregular and high movement in more than one direction, whilst maintaining a high quality seal.

Uses

Sealing of expansion, construction and connection joints, as well as for cracks in:

- Tunnels and culverts, Hydro electric power plants
- Sewage treatment plants
- Water retaining structures and drinking water reservoirs
- Around iron, steel and concrete pipes
- Swimming pools
- Roof expansion joints
- Sealing of joints between rigid and flexible surfaces

Features and Benefits

- Easy to install
- Suitable for both dry and damp concrete surfaces
- Extremely flexible
- Performs well within a wide range of temperatures
- Excellent adhesion to many materials
- Weather and water resistant
- Fast curing
- Suitable for contact with potable water
- Good resistance to many chemicals
- Versatile system suitable for many difficult situations

Application Methodology

Substrate Quality:

Concrete, stone, mortar renderings: Substrate must be clean, free from oil, grease, laitance or loose particles. Age of concrete should be 3-6 weeks depending on environmental conditions.

Substrate Preparation:

Concrete, stone, mortar renderings: Blast cleaning or equivalent mechanical means followed by thorough vacuum / dust removal.

Method of use: System Structure

SealArm Tape TPE System consists of a Thermoplastic Elastomeric Sealing Joint tape and ReArm Bond 4031

Note: The system configuration as described must be fully complied with and it should not be changed.

Application Details:

Consumption of strip and adhesive:

Strip width	Strip thickness	Adhesive consumption per meter tape length*
100 mm	1mm	0.7 kg/m
200mm	1mm	1.2 kg/m

* Depends upon surface condition

Application Conditions / Limitations

Substrate Temperature +10°C min /+30°C max
Ambient Temperature +10°C min/+30°C max

Substrate Moisture Content:

Cementitious substrates: Dry, damp tolerant
When applied to damp concrete, brush the adhesive well into substrate.

Relative Air Humidity 85% max. (at +25°C)
Dew Point Avoid condensation.

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Mixing: ReArm Bond 4031

Mix parts A+B together for at least 3 minutes with a mixing spindle attached to a slow speed (200 -300 RPM) electric drill (max 600 rpm) until the material becomes smooth in consistency and a uniform grey colour. Avoid aeration while mixing. Then, pour the whole mix into a clean container and stir again for approx. 1 more minute at low speed to keep air entrapment at minimum. Mix only that quantity which can be used within its pot life.

Selection of Tape size:

Selection of the correct tape size (thickness and width) depends on the expected performance. If necessary, ask for technical advice. Tapes of 1 mm thickness are suitable for sealing of joints subject to light load only.

Max. Permissible permanent elongation:

1 mm tape:	10% of the non adhered tape width
2 mm tape:	25% of the non adhered tape width

Note: For higher movement, place and fix tape in a loop into the joint.

Application of tape:

Tape checking/cleaning:

In case of dirt clean the surface of the SealArm Tape TPE with a dry or wet cloth. Use water for cleaning (do not use solvent).

Check the SealArm Tape TPE for damages during storage and transport and remove damaged parts if necessary.

Apply thoroughly the mixed ReArm Bond 4031 on both sides of the joint / crack onto the prepared substrate, using a suitable trowel. Layer thickness of adhesive should be 1 - 2 mm and the bonding width on each side of the joint/crack should be at least 50 mm on 20 cm wide tape, 40mm on 10cm wide tape.

Apply the SealArm Tape TPE within the open time of the adhesive. Press the tape firmly and without trapping air into the adhesive by using a suitable roller. The adhesive should be squeezed out on both sides of the tape by ~ 5 mm.

Let the base layer of the ReArm Bond 4031 achieve initial set before the top layer is applied. If necessary activate the tape again, if more than 8 hours elapses. Ensure that the tape should be properly adhered to the concrete.



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Apply the adhesive at a thickness of 1 mm over the full width of the SealArm Tape TPE and extend a minimum of 10mm beyond edges of the SealArm Tape TPE and finally ensure a neat and precise finish.

Jointing / Connection of SealArm Tape TPE

The layer to be overlapped (50 mm) shall be done with adhesive.

Cleaning of Tools:

Clean all tools and application equipment with FloArm Clean PU immediately after use. Hardened / cured material (adhesive) can only be mechanically removed.

Waiting Time / Overcoating:

The ReArm Bond 4031 may be over coated with an epoxy coating. In this case do not smooth the adhesive with detergent. If the waiting time between application of adhesive and over coating is to be longer than 2 days, the adhesive must be blinded to excess with quartz sand immediately after application.

If the ReArm Bond 4031 is to be over coated with Water proofing System or other cementitious materials, the top layer of adhesive must be blinded to excess with kiln dried quartz sand immediately after application.

Notes on Application / Limitations:-

If joints are to be subjected to positive water pressure, the tape must be supported in the joint. Hard foam, filler board or joint sealant is recommended.

For exposure to negative water pressure the SealArm Tape TPE must be supported with steel plates secured on one side.

Limit without support: For 5 mm joints at +20°C and max. 0.5 bar water head a tape of 2 mm thickness has to be used.

If a bituminous wearing layer is installed on top of SealArm Tape TPE system the temperature of the hot mix must not exceed +180°C. Up to 10 mm thickness the temperature may be max. +220°C. If necessary apply in layers and allow to cool in between.

The SealArm Tape TPE must be protected from mechanical damage.

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sealing system



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Technical Data

This joint system consist of the following parts:

1, SealArm Tape TPE	Flexible light grey membrane
2, ReArm Bond 4031	Colour Part A - White Part B - Black Parts A+B - Concrete Grey

Chemical Base:-

1, SealArm Tape TPE	Modified TPE Elastomer
2, ReArm Bond 4031	Modified, solvent free, 2-part Epoxy resin

Service Temperature	-30°C min. to +40°C max. in wet conditions 30°C min. to +60°C max. in dry conditions
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Mechanical / Physical property :-

Following are the data of the total system with ReArm Bond 4031

Bond Strength	> 1.5 N/mm ² (concrete failure)
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SealArm Tape TPE

	1 mm		2 mm
Colour:	Grey		Grey
Total thickness (approx)	1.0 mm	Tolerance: +/- 0,1 mm	2 mm +/- 0,1 mm
Material weight (approx.)	930 g / m ²	Tolerance: +/- 70 g/m ²	1830 g / m ² +/- 100 g/m ²
Shore-A-hardness (approx.)	87		87
Length per roll	20 m		20 m
Physical Properties (approx.)	DIN	Value	Value
Burst pressure	Internal	> 4 bar	> 5 bar
Tear Resistance-length wise	DIN EN 12311-2 Method B	≥12.5 N / mm ²	≥ 8 N / mm ²
Tear Resistance-across	DIN EN 12311-2 Method B	≥12.5 N / mm ²	≥.8 N / mm ²
Elongation at break length wise	DIN EN 12311-2 Method B	≥500%	≥500%
Elongation at break across	DIN EN 12311 -2 Method B	≥500%	≥500%
Tearing Resistance(nail shank) length wise	DIN EN 12310 -1	≥200N	≥400N
Tearing Resistance(nail shank) across	DIN EN 12310 -1	≥200N	≥400N
Water vapour permeability	DIN EN 1931 Method B	≥40 m	≥80 m
Bonding strength	DIN EN 1348	≥ 4,0 N/mm ² *	≥ 4,0 N/mm ² *
Peel test on wood carrier	Internal	≥100 N *	≥100 N *
UV-Resistance	DIN EN ISO 4892-3	≥6500 h	≥6500 h
Reaction to fire	DIN ISO 11925-2 EN 13501-1	Class E	Class E

- In dependence of the used adhesive



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Water tightness	DIN EN 1928A 60kPa/24 Std DIN EN 1928B- 400kPa/72 Std	Watertight Watertight
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Resistance after storage over 28 days by room
temperature in following chemicals

Chemical Properties:	+ = resistant
	0 = weakened
	- = non resistant
Hydrochloric acid 3%	+
Sulphuric acid 35%	+
Citric acid 100g/l	+
Lactic acid 5%	+
Potassium hydroxide 3% / 20%	+ / +
Sodium hypochlorite 0,3g/l	+
Salt water (20g/l Sea water salt)	+



TECHNICAL DATA SHEET

Packaging

ReArm Bond 4031 will be available in 6 kgs packing.

SealArm Tape TPE:-1mm*1m*20m

SealArm Tape TPE:-2mm*20cm*20Mtr

Storage & Shelf Life

Following are months of shelf life from date of
production if stored properly in undamaged unopened,
original sealed packaging in dry conditions at
temperatures between +5°C and +25°C. Protect from
direct sunlight and frost.

1. ReArm Bond 4031= 12 months
2. SealArm Tape TPE = 24 months

Product Categories Available



Legal Note

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