



## PRODUCT DESCRIPTION

BI FLEX is a combination of waterproof elements to treat joints and cracks. It consists of a TPE polymer-based ELASTIC TAPE and a two-component EPOXY ADHESIVE.



## PRODUCT APPLICATION

- To apply a waterproof sealing on joints and cracks
- To seal construction joints
- Connect adjoining surfaces of joints, structures in general or prefabricated elements

## ADVANTAGES

- Practical and simple application, it does not require expensive preparatory work
- It can adapt to complex situations
- 100% waterproof with positive/negative hydrostatic pressure
- Control over hydraulic water-tightness, which is visible and repairable
- Yellow to immediately identify the profile in case of maintenance following application and to avoid accidental breakage
- High elongation capacity and absorption of dilatation
- Excellent adhesion between tape and adhesive
- Excellent adhesion on different substrates, such as concrete, mortar, stone, steel and galvanised steel
- High resistance to chemical agents (conduct test) and thawing salts
- Width specifically designed for casting (10 cm) or joint (20 cm) construction

## PREPARATION AND APPLICATION Preparing the surfaces

Thoroughly clean the surfaces and remove any loose material with vigorous brushing, sanding or bush-hammering.

Grind or sand metal surfaces.

High-pressure clean surfaces.

For application with negative hydrostatic pressure the concrete surfaces must be roughened/milled for at least 2 mm and the water infiltrations must be removed using TAP 3/I-PLUG rapid-setting mortar.

The surface must be dry.

### Mixing BI BOND epoxy adhesive

Add all of the component B to component A.

Mix for at least two minutes with an electric mixer until a smooth mixture with no colour streaks is obtained.

### Application of BI FLEX tape on cracks and movement joints

On any cracks or movement joints, apply a normal adhesive tape, with a width of 20 mm, to the substrate.



The same adhesive tape must also be preventively applied along the mid-line of the BI FLEX tape. Apply a layer about 1-mm thick of the BI BOND adhesive in the same amount on both sides of the joint/crack and across a width at least 10 mm greater than the width of the BI FLEX tape. Immediately remove the adhesive tape and promptly proceed to install the BI FLEX tape, keeping the side with the previously applied adhesive tape towards you, mechanically pressing the BI FLEX surface to expel any air bubbles. Cover BI FLEX with an even layer of BI BOND adhesive, which is at least 1.5 mm thick. Immediately remove the adhesive strip applied earlier in the centre line of the BI FLEX tape to ensure its central part can move freely. If you foresee broad movement of cracks or movement joints, install BI FLEX tape in an omega shape.

**Application on construction joints**

Apply a 1 mm thickness of BI BOND on construction joints, with a width of at least 10 mm more than the width of the BI FLEX tape. Proceed immediately with the installation of the BI FLEX tape, mechanically pressing the surface of the tape, helping expel any air bubbles. Cover the tape again with an even layer of BI BOND adhesive, which is at least 1.5-mm thick.

**Connections (A)**

Prepare any connections not part of the installation. Connect the tapes by gluing them with SUPERBOND (see instructions on the packaging). Slightly sand the surfaces to improve adhesion. Place 4-5 cm T-shaped or L-shaped pieces on the ends of the tape.

References available at [www.volteco.com](http://www.volteco.com)**PACKAGING AND STORAGE**

BI BOND adhesive is available in two pails: 5 kg or 2.5 kg. The BI FLEX elastic sealing tape is packed in 10 or 20-cm wide and 20-m long rolls. BI BOND adhesive stored in the original packaging, in a dry place and at a temperature between 10°C and 30°C, can be used within 12 months from when it was packed. The BI FLEX elastic tape must be stored in the original sealed packaging and away from direct sunlight. Open rolls that are not protected must be used within 1 month from when the sealing is broken.

**CONSUMPTION AND YIELD**

BI FLEX H10: 0.6 kg of BI BOND for each metre of BI FLEX.  
BI FLEX H20: 1 kg of BI BOND for each metre of BI FLEX.

**WARNINGS - IMPORTANT NOTES**

The application temperature must be between 10°C and 30°C. Lower temperatures can delay the cross-linking process of the BI BOND adhesive, while higher temperatures drastically reduce the pot life. Do not apply on damp substrates (maximum humidity 4%). Do not use the already mixed BI BOND adhesive if the pot life has expired (even if the consistency is good). If the materials are incompatible, check the adhesion between BI BOND adhesive and the substrate. For application on metal subject to high fluctuations in temperature and/or considerable length, consult the Volteco Technical Office.

**PHYSICAL AND TECHNICAL SPECIFICATIONS**

Specification	Values
Appearance/Colour: • BI BOND • BI FLEX	Grey two-component filled epoxy adhesive Yellow TPE elastomer polymer-based elastic sealing tape with improved adhesion
Mixing ratio	Component A : Component B = 1 : 1
Specific weight	1.5 kg/l
Expected useful lifetime	30' (at +20°C and 60% R.H.)



# SISTEMA BI FLEX

Specification	Values
Concrete peeling resistance	> 2 N/mm (with BI BOND thickness equal to 1 mm)
Hydraulic resistance on joints (with joint opening of 10 mm)	100 kPa (with cohesive settling of BI BOND)
Tape thickness	1 ± 0.1 mm
Reaction to fire (UNI EN 13501-1)	Class E

**SAFETY** Refer to the related Safety Data Sheet.

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**ANNEXES**



# SISTEMA BI FLEX

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