

# Sika® Dilatec® Tapes

Pre-formed joint and edge waterproofing and sealing tapes  
Part of the Sika® Dilatec® System

## Product Description

Sika® Dilatec® tapes are flexible, ready to use, waterproofing and sealing tapes, made of bitumen resistant PVC with fabric strips at the side, for use in construction and movement joints and for the connections and ends of sheet waterproofing membranes. They are part of the Sika® Dilatec® System.

## Uses

### ■ Type BE-300

End tape for bituminous waterproofing on concrete and metals. Sealed on one side with hot bitumen between polymer bitumen waterproofing membranes (B-edge) and bonded on the other side with Sikadur®-Combiflex® CF Adhesive or Sikadur®-31 CF N (E-edge).

### ■ Type ER-350

End tape for PVC waterproofing membranes on concrete and metals. Bonded on one side with Sikadur®-Combiflex® CF Adhesive or Sikadur®-31 CF N (E-edge) and welded on the other side to the PVC waterproofing membrane (R-edge).

### ■ Type BR-500

End tape for bituminous waterproofing and jointing tape between PVC waterproofing membranes and bituminous waterproofing. Sealed on one side with hot bitumen between two layers of polymer modified bitumen membrane (B-edge) and welded on the other side to the PVC waterproofing membrane (R-edge).

### ■ Type E-220

Sealing tape for construction and movement joints in concrete and metals. Bonded on both sides with Sikadur®-Combiflex® CF Adhesive or Sikadur®-31 CF N (E-edges).

### ■ Type B-500

Sealing tape for movement joints on bituminous waterproofing. Sealed on both sides with hot bitumen between two layers of polymer modified bitumen membrane (B-edges).

## Characteristics / Advantages

- Durable water and weather resistance
- High movement absorption
- Root resistant
- Resistant to many chemicals
- UV resistant
- Suitable for use and service over a wide temperature range
- Can be hot air welded

Construction



## Tests

### Approval / Standards

Tecnotest AG Rüslikon Zurich, Test Report No. A2838-01 dated 18.08.05: Watertightness according to EN 1928 Method B and thickness measurement to SN EN 1849-2.

Sika Dilatec E-220, Determination of reaction to fire, Tecnotest, 07.01.2013

Sika Dilatec BE-300, Determination of reaction to fire, Tecnotest, 07.01.2013

Sika Dilatec ER-350, Determination of reaction to fire, Tecnotest, 07.01.2013

Sika Dilatec B-500, Determination of reaction to fire, Tecnotest, 07.01.2013

Sika Dilatec BR-500, Determination of reaction to fire, Tecnotest, 04.03.2013

## Product Data

### Form

#### Appearance / Colours

##### Type BE-300, E-220 and B-500:

Ready to use, waterproof sealing tapes in rolls, with a central expansion zone to absorb the joint movement and fabric edging strips at the sides, for fixing to the substrate or sealing between 2 layers of polymer modified bitumen membrane. The top and bottom are light grey.

##### Type ER-350 and BR-500:

Ready to use, waterproof sealing tapes in rolls, with glass fibre reinforcement and fabric strip on one side, for fixing to the substrate and roof sealing, hot air weldable to PVC waterproofing membranes on the other side without fabric. The top is light grey, the bottom is black.

### Packaging

Type	BE-300	E-220	B-500	ER-350	BR-500
Thickness	1.6 mm	1.6 mm	1.6 mm	1.6 mm	1.6 mm
Width	300 mm	220 mm	500 mm	350 mm	500 mm
Roll length	30 m	30 m	30 m	20 m	30 m

Note: The additional use of Sika® Dilatec® welding tape is required for the tape ends jointing area (supplied in 2 m rolls, 50 cm wide).

### Storage

#### Storage Conditions/ Shelf-Life

36 months from date of production if stored in undamaged and unopened, original sealed packaging in dry conditions at a storage temperature of between +5°C and +40°C.

### Technical Data

#### Chemical Base

Soft PVC, bitumen compatible (PVC-P-BV)

#### Water Vapour Diffusion Resistance ( $\mu\text{H}_2\text{O}$ )

~ 17.000

(According to SIA V280)

#### Fire Rating

4.2

(According to SIA V280)

#### Service Temperature

Long-term:

Lower limit: -25°C

Upper limit: +80°C

### Mechanical / Physical Properties

#### Water Tightness

10 bar

(According to EN 1928/B)

#### Tensile Strength

Type BE-300, E-220 and B-500:  
> 10 N/mm<sup>2</sup>

(According to EN ISO 527-1)

Type ER-350 and BR-500:  
> 6.5 N/mm<sup>2</sup>

<b>Elongation at Break</b>	<b>Type BE-300, E-220 and B-500:</b> > 250 % <b>Type ER-350 and BR-500:</b> > 200%	(According to EN ISO 527-1)						
<b>Root Resistance</b>	Compliant	(According to SIA V280)						
<b>Seam Strength</b>	Weld seam strength: Failure always adjacent to seam	(According to DIN 16 726)						
<b>Impact Resistance</b>	Mechanical Impact Resistance: Watertight at a drop height > 650 mm (falling weight 500g)	(According to SIA V280)						
<b>Resistance</b>								
<b>Chemical Resistance</b>	Long term exposure to: Water, sea water, alkaline water, de-icing salt solutions, bitumen renders, water disperse bitumen based coatings.  Temporarily resistant to: Dilute inorganic alkalis and mineral acids, mineral oils.							
<b>Heat Resistance</b>	Heat ageing: Compliant Bending test: No cracks at < -25°C Artificial weathering: 5000 hours – compliant	(According to SIA V280) (According to SIA V280) (According to SIA V280)						
<b>Ozone Resistance</b>	Compliant	(According to SIA V280)						
<b>Behaviour in Hot Water</b>	Compliant	(According to SIA V280)						
<b>System Information</b>								
<b>Application Details</b>								
<b>Consumption</b>	Bonding of the E-edge requires approx. 400 g of Sikadur®-Combiflex® CF Adhesive or Sikadur®-31 CF N per metre per side. High substrate roughness increases the consumption.							
<b>Application Instructions</b>								
<b>Application Method / Tools</b>	<p><i>Tape type:</i></p> <p>Selection of the correct type of tape and therefore its application method is dependent on the specific project details and conditions. Advice is available from Sika Technical Services if required.</p> <p>Maximum permissible expansion movement under constant load:</p> <table> <tr> <td>Sika® Dilatec® BE-300</td> <td>+/- 5 mm</td> </tr> <tr> <td>Sika® Dilatec® E-220</td> <td>+/- 20 mm</td> </tr> <tr> <td>Sika® Dilatec® B-500</td> <td>+/- 20 mm</td> </tr> </table> <p>For larger movement apply the tapes with a loop into the joint.</p> <p><i>Application:</i></p> <p>The B-edge (bitumen) is sealed and bonded with hot bitumen in a sandwich between 2 layers of membrane.</p> <p>The E-edge (epoxy) is bonded to the substrate with Sikadur®-Combiflex® CF or Sikadur®-31 CF N epoxy adhesive.</p> <p>The R-edge (PVC) is heat welded to PVC waterproofing membranes and PVC profiles.</p> <p>Please refer to the Sika® Dilatec® Method Statement and the Sika® Dilatec® Application Manual.</p> <p><i>Tape joints:</i></p> <p>Tape ends and connections are joined by heat welding with hot air and pressure. Please refer to the Sika® Dilatec® Application Manual.</p>		Sika® Dilatec® BE-300	+/- 5 mm	Sika® Dilatec® E-220	+/- 20 mm	Sika® Dilatec® B-500	+/- 20 mm
Sika® Dilatec® BE-300	+/- 5 mm							
Sika® Dilatec® E-220	+/- 20 mm							
Sika® Dilatec® B-500	+/- 20 mm							

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**Value Base** All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

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**Local Restrictions** Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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**Health and Safety Information** For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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**Legal Notes** The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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