Construction

# Method Statement
# Sika® Dilatec® System

## PVC-based waterproofing and sealing System

## BU Contractors

**Storage Place: Sika Intranet BU Contractors**

**Key Words:**
Joint Waterproofing System, PVC sealing tapes, construction and expansion joint sealing

**Scope:**

**System build up information and application of Sika® Dilatec® System**



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# 1. System Description

Waterproofing and sealing system for expansion and construction joints, plus the ends and connections between polymer modified bitumen and PVC based sheet waterproofing membranes and other substrates.

The system consists of Sika® Dilatec® tapes, Sikadur®-Combiflex® CF adhesive and Sikadur®-31 CF N.

## Uses

Multifunctional waterproofing and sealing system for connections to:

- Concrete (E-edge)
- Polymer modified bitumen sheet waterproofing membranes (B-edge)
- PVC sheet waterproofing membranes and PVC profiles (R-edge)

The Sika® Dilatec® system gives waterproof joints from and to building substrate surfaces and polymer modified bitumen or PVC sheet waterproofing membranes and provides watertight movement and construction joints:

- In bridge construction
- In all types of underground construction
- In tunnelling
- For underground car parks
- For flat roofs

## Characteristics/Advantages

- Durable water and weather resistance
- High movement absorption
- Root resistant
- Excellent adhesion to most mineral and metallic building components
- Specific tapes and adhesives available for the different substrates
- Rapid bonded of the tapes, even in low temperatures
- Adaptable to many different situations
- Suitable for use and service over a wide range of temperatures
- The Sika Dilatec tape ends and joints can be hot air welded on site

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## 1.1. References

To ensure the correct application of Sikadur®-42, please refer to the following documents:

- PDS (Product Data Sheet)
- MSDS (Material and Safety Data Sheet)
- Application Manual

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

## 1.2. Limitations

According to the Product Data Sheet, certain limitations are given:

- Substrate temperature
- Ambient temperature
- Material temperature
- Substrate moisture content
- Dew point conditions
- Chemical resistance
- Heat resistance
- Maximum permissible expansion movement

Please refer to the PDS (Product Data Sheet) to confirm the details of these requirements.

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# 2. Products

## Sika® Dilatec®

**Type BE-300, E-220 and B-500:**
Ready to use, waterproof sealing tapes supplied in rolls, with a central expansion zone to absorb the joint movement, plus fabric edging strips at the sides for fixing to the substrate or sealing between 2 layers of bituminous membranes. The top and bottom of the tapes are light grey.

**Type ER-350 and BR-500:**
Ready to use, waterproof sealing tapes supplied in rolls, with a glass fibre reinforced fabric strip on one side for fixing to the substrate and edge sealing, with hot air weldable PVC on the other side for welding to PVC sheet waterproofing membranes and profiles. The top of the tapes is light grey and the bottom is black.

**Sikadur®-31 CF and Sikadur® Combiflex® CF Adhesive:**
Sikadur®-Combiflex® CF Adhesive and Sikadur® -31 CF are solvent-free, thixotropic two part adhesives based on epoxy resins and fillers.

## 2.1. Packaging

**Sika® Dilatec®**

| 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).

**Sikadur®-Combiflex® CF Adhesive Normal and Rapid types and Sikadur®-31 CF N:**

- Pre-batched, non-returnable 1.2 kg container (just for Sikadur®-31 CF N)
- Pre-batched, non-returnable 6 kg container
- Pallet delivery: 90 x 6 kg
- Part A non-returnable 20 kg container (drum)
- Part B non-returnable 10 kg container (drum)
- Pallet delivery: 600 kg (20 x 20 kg part A and 20 x 10 kg part B)

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## 2.2. System Structure

**E-edge**:
The E-edge (epoxy) is bonded to the concrete with the Sikadur®-Combiflex® CF Adhesive or Sikadur®-31 CF N and forms a waterproof connection.

**B-edge:**
The B-edge (bitumen) is impregnated, sealed and bonded with hot bitumen to the first polymer bitumen waterproofing membrane layer. A second, and possibly a third in some details, provides a stable sandwich type watertight fixing.

**R-edge:**
The R-edge (PVC) is heat welded directly to the PVC waterproofing membrane or PVC profiles, forming a watertight joint.

## 2.3. Pre-Project Preparation

**Consumption**
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.

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# 3. Safety Measures on Site

## Personal Protection:

The following symbols are typical of the internationally required labelling for epoxy resins and hardeners. In accordance with these, the products should be stored and applied according to the appropriate local regulations. Please also observe any other relevant local regulations (Refer to local PDS and MSDS).




The following protective equipment is essential for anyone working with any epoxy resin based products and these instructions must be strictly adhered to:


Wear protective overalls


Wear safety goggles


Wear protective gloves

In addition to protective clothing it is also recommended to use a barrier cream on the skin. The use of a barrier cream is more useful and effective than often reputed, they are inexpensive, convenient, and protect well if they are not frequently flushed with solvents. However, barrier creams are only a supplement to and not a replacement for protective gloves, so always wear gloves. Always ensure there is no contamination inside gloves before reusing them.

Ensure sufficient ventilation during application in closed or confined spaces.

If any epoxy resin or hardener component gets on clothing, remove the garment at once. The friction of resin-saturated fabric on the skin can cause serious chemical burns. Wash your exposed skin occasionally during the workday and immediately if any epoxy gets on it. Avoid using solvents since they can help epoxy material penetrate in to the skin and solvents themselves are aggressive and harmful to the skin. If water is no more available at any time or shorten, then clean the contamination with sand instead, it works well. Certain hand cleaners also work without harmful effects. Citrus skin cleaners, for example, are effective and mild. Soap and water takes time, but also eventually works for small areas.

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Avoiding skin contact by keeping tools and equipment clean is one of the best ways to protect oneself. Remember, epoxies are very tacky which is partly why they work so well in construction, so it is important to keep them from sticking to your people on site.

Despite safety precautions, with any instances of skin contact rinse immediately with clean water and use warm water and soap to thoroughly clean the skin.

A good skin cleaner:


Skin cleaner
Sika Topclean T

No epoxy resin applications should ever proceed without sufficient water being adjacent and available for eye washing. If adequate clean water is not provided then the project should not commence, no matter what the urgency. Numerous workers and observers have suffered injury due to resin entering their eyes when there was no water available to clean them. If a professional eyewash kit is not available, then at the very minimum one quart of clean water must be present. The water can be in a pail, plastic jug or via a hosepipe, but it must always be directly adjacent to the grouting operation ie a water source on the opposite side of the building or site is not good enough. Safety glasses or other eye protection obviously help those doing the work but they can also create a false sense of security. Do not take risks with health!

Professional eyewash kit available

In the event of any spillage or contact into the eyes, always seek medical advice immediately after rinsing and cleaning the eyes with the clean water.

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Dependent on local regulations respiratory masks may be required. Please observe all relevant local regulations.

Breathing protection required

The following equipment is also generally recommended on construction sites:

Wear hard hats

Wear safety shoes with steel toe caps

Wear ear protection. For use of mixing equipment **à** please refer to the manufacturers advice

Please refer to the local country regulations and the specific construction site requirements.

## Disposal:

Brush away and remove any excess grout into appropriate containers for disposal before it has hardened.

Hardened epoxy resin can be disposed of with other combustible waste in a waste incineration plant.
In no circumstances, burn the epoxy in an open fire due to the potentially dangerous gases which can be released.

Uncured epoxy must be disposed of as hazardous waste. It is forbidden to mix it with conventional waste.

Always dispose of excess or waste materials in accordance with local regulations.

Cleaning of Tools:
Uncured material can be removed with Sika Colma Cleaner.

Cured material can only be removed mechanically (or with heat).

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## 3.1. Surface Preparation

### Substrate Quality

**For bonding the E-edge with Sikadur®-Combiflex® CF Adhesive or Sikadur®-31 CF N:**
*Concrete, stone, cement based mortars and renders:*
Dry or slightly damp (surface dry). When used on slightly damp concrete particularly, the adhesive must be worked well into the surface.
Clean, free from oil and grease, no loose or friable particles, no cement laitance.
Concrete shall have sufficient mechanical strength with a minimum age of 3 to 6 weeks, dependent on the mix design and the environmental conditions.

*Structural steel 37, V2A (Material No. 1.4301):*
Clean, free from oil and grease, free from rust and mill scale etc.

*Polyester, epoxy, ceramics, glass:*
Clean, free from oil and grease.
*For sealing of the B (bitumen) edge with hot bitumen:*
Follow the bitumen supplier's instructions.

*For welding of the R (PVC) edge to PVC sheet waterproofing membrane:*
Follow the normal instructions for the relevant PVC waterproofing membrane.

### Substrate Preparation

**For bonding of the E-edge with Sikadur®-Combiflex® CF Adhesive or Sikadur®-31 CF N:**

*Concrete, stone, mortar, cement based mortars and renders:*
Blast clean, water jet or abrade. Then thoroughly remove all dust.

*Structural steel 37:*
Free from oil and grease. Blast clean or abrade, thoroughly remove all dust.
Avoid dew point conditions.

*V2A steel (Material No. 1.4301):*
Free from oil and grease. Abrade lightly with an abrasive pad, thoroughly remove all dust. Avoid dew point conditions.

*Polyester, epoxy, ceramics, glass:*
Free from grease and oil. Lightly roughen polyester and epoxy with an abrasive pad, thoroughly remove all dust. Avoid dew point conditions.
Glass and ceramics: Abrade uniformly, thoroughly remove all dust.
Do not apply on siliconized surfaces. Avoid dew point conditions.

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## 3.2. Mixing

**Sikadur®-Combiflex® CF Adhesive or Sikadur®-31 CF:**

Part A:B = 2:1 parts by weight or volume

Pre-batched units:
Add part B completely to part A. Mix with an electric stirrer for at least 2 min until no coloured streaks are visible in the mix or at the edges and bottom of the can. Decant the mix into a clean container and mix again for 1 min. Mix at low speed so that as little air as possible is introduced (max. 500 rpm). Mix just enough for use within the pot life.

Bulk containers, not pre-batched:
Stir the components in their different drums thoroughly. Add the components together in the correct proportions and mix in a suitable container then proceed as for the pre-batched units above..

## 3.3. Additional works

The contact adhesive Sika®-Trocal C-733 is suitable for temporary tape fixing (therefore it can be used as an assembly aid for corners, loops, overhead working etc.). This adhesive must be used in the centre of the tape only, never in the Sikadur®-Combiflex® CF Adhesive or Sikadur®-31 CF N bond areas.

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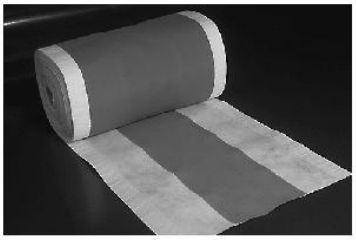
# 4. Application Manual

With careful installation you can be sure of having given the structure and its components the best possible protection against water penetration. This is assured by the high quality of the Sika® Dilatec® products and their proven waterproofing technology.

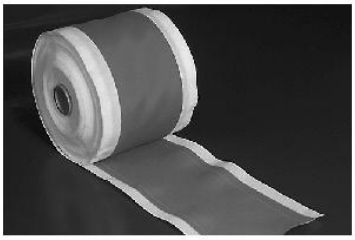
To make the application as easy as possible on site, we have collated the most important information about Sika® Dilatec® in this installation manual. It supplements our practical training and allows you to actually reference details of the different types of installation and details on site. The standard details, joints and end sealing procedures that it contains will allow you to seal almost any configuration of joint correctly.



**Sika® Dilatec® sealing tapes**

**System**
B-edge, fabric strips for bitumen bonding

The **Sika® Dilatec® B tape** is laid over the first layer of waterproofing and bonded to it with hot bitumen. A second and if necessary a third seal gives a stable "sandwich-type" anchorage of the side fabric strips.



**Sika® Dilatec® sealing tapes**

**System**
E-edge, fabric strips for epoxy bonding

The E-edges are bonded to the concrete substrates with **Sikadur®-Combiflex® CF** or with **Sikadur®-31 CF N** two-part epoxy resin forming a watertight bond to the structure.

**Jointing tape**

**System**
R-edge, fabric strips for PVC bonding

The R-edge is hot air welded to the PVC waterproofing membrane.

**Sika® Dilatec®** Systems

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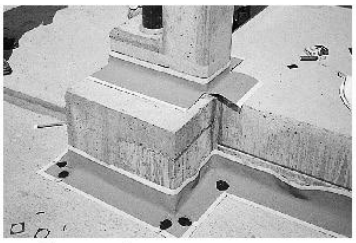
# 4.1. Sika® Dilatec® E-220

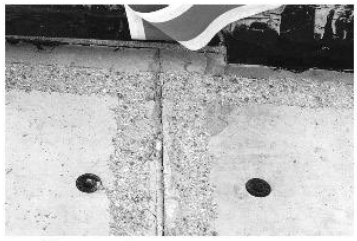


**Sika® Dilatec® sealing tapes**

**E type installation**
(with **Sikadur®-Combiflex® CF Epoxy** or with **Sikadur®-31 CF N**)
For watertight installation of **Sika® Dilatec® E** on concrete, stone, masonry and steel substrates etc.

Fabric-laminated side strips are bonded with **Sikadur®-Combiflex® CF** or with **Sikadur®-31 CF N.**

The wider fabric edge at the bottom ensures a large bonding area and therefore watertightness.



**Sika® Dilatec® sealing tapes**

**Substrate type: concrete, stone, mortar**
Sound, clean, free from oil and grease, no loose and friable particles or cement laitance. Concrete should be aged at least 3 to 6 weeks dependent on its mix design and the environment.
*Preparation:* Blastclean, water jet, or other appropriate means. Then remove all dust by brush and/or vacuum.
**Structural steel 37:** Free from oil and grease, rust, mill scale and with a prepared surface standard equivalent to SA 2.5.

*Preparation:* Blastclean. Avoid dew point conditions.

**Tools for the installation of Sikadur®-Combiflex® CF or Sikadur®-31 CF N**

Use a drill and spherical mixing paddle to mix the individual prebatched **Sikadur®-Combiflex® CF** or **Sikadur®-31 CF N** adhesive components A+B.

**Sika® Dilatec® E** — Application of epoxy adhesives

**Mixing the two components correctly**
Remove the security ring, open the tin.

Combine parts A and B (ratio of 2:1 parts by weight and volume).

Caution: Follow the safety precautions for handling epoxy resins:

– Wear protective clothing, such as goggles and gloves etc.

**Sikadur®-Combiflex® CF**
**Mixing**
*Prebatched units:*
Pour all of part B into part A. Mix with an epoxy drill mixer for at least 2 minutes until all the streaks in the material and on the sides and base of the can have disappeared.
Decant the mixture into a clean container and mix again for at least 1 minute. Mix at low speed so that the minimum amount of air is introduced (max. 500 rpm). Mix just enough to use within the pot life at the temperature.
*Large units – not prebatched:*
Stir the material well in the separate containers with a drill mixer.
Dose the components in the correct ratio and mix in a suitable container as for the prebatched units above.

Pot life (6 kg mixture):
**Sikadur®-Combiflex® CF** type N
+23 °C approx. 50 minutes
**Sikadur®-Combiflex® CF** type R
+10 °C approx. 45 minutes

Working temperatures
(substrate, air and material):
**Sikadur®-Combiflex® CF** type N
+10 °C to +30 °C
**Sikadur®-Combiflex® CF** type R
+5 °C to +15 °C

*Substrate moisture content:*
Cement-based substrates:
Dry or slightly damp (dry surface)

**Sikadur®-Combiflex® CF** must be worked well into the surface when used on damp concrete.

Never leave the containers in direct sunlight. At high temperatures store the **Sikadur®-Combiflex® CF** container in a cool place.

**Sika® Dilatec® E** — Application of epoxy adhesives

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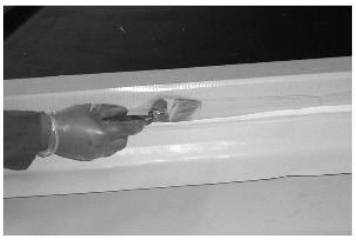
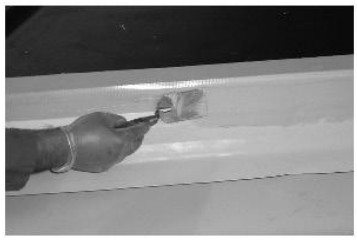


**Ground coat**

In the location for the fabric strips, trowel or stiff brush apply the **Sikadur®-Combiflex® CF** adhesive uniformly without gaps (layer thickness 1–2 mm).

For a cleaner edge, an adhesive masking tape can be used and then removed after application (before curing).



**Protective coat**

Position the **Sika® Dilatec® E tape** with the wide fabric edge underneath.

Press firmly into the epoxy, particularly at the sides, with a trowel and ensure the fabric area is filled.

Apply the second layer of **Sikadur®-Combiflex® CF** on top of the fabric "wet on wet".

Cover and fully embed the fabric edges and 5–10 mm of the central tape.

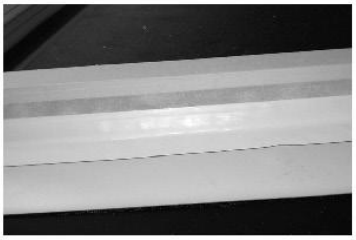
Leave the movement area in the centre of the tape clear!

**Broadcasting with sand**

The top layer of epoxy can be broadcast with **Sikadur®-501** sand Ø 0,3–0,9 mm if required.

This prevents "glassy" surfaces and allows coatings to be applied later or further epoxy layers to be added without additional abrasion being required.

**Sika® Dilatec® E**



**Sika® Dilatec® E epoxy-bonded installation**

Complete bonding with **Sikadur®-Combiflex® CF Epoxy**

The seal must now be protected from mechanical damage (e.g. with protective sheeting or steel plates etc.).

Clean tools immediately with **Sika® Colma® Cleaner,** cured material can only be removed mechanically.

**Tools for tape connections**

Hot air gun for PVC welding, including 20 mm and 40 mm nozzles, pressure roller, wire brush and scissors.

Preferably use a Leister hand welding machine for welding **Sika® Dilatec® tapes.**

The 20 mm nozzle and pressure roller are used for the lap joints.

The welding nozzle must be cleaned frequently with a wire brush.

Weld at about 420 °C.

Keep the weld areas clean and dry.

Proceed as follows:

- Lap weld the central movement area (without fabric)
- Overlap the fabric-only strips at the edge for bonding together
- Butt joint the area in between with fabric on one side (underneath!) and weld the PVC layer above together

Note:
Always allow at least 3 cm overlap when jointing.

**Sika® Dilatec® E**

Butt joints

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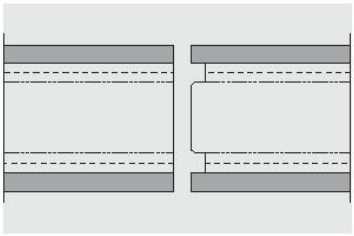
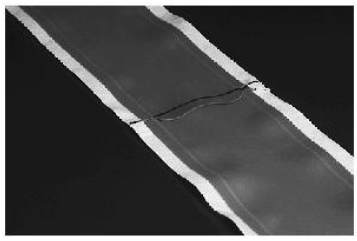
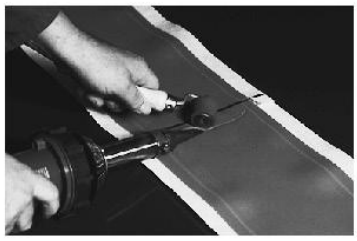


Cutting profile



**Cut butt joints to size**

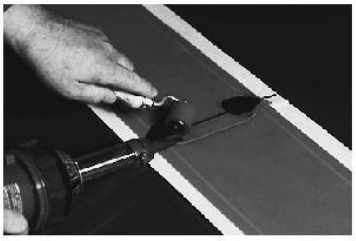
1) Cut tapes to size and shape in the overlap area.
2) Do not cut away the fabric edges and central movement area.
3) Cut out the area with PVC above and fabric below.



**Weld the lap**

Hold the joint together and weld the lap in the PVC area.

**Sika® Dilatec® E** Butt joints

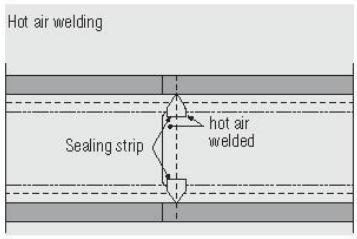


**Weld the butt joint**

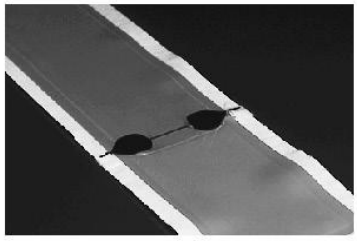
The butt joint is sealed with the welded sealing strips.

Width: approx. 3 cm
Length: joint area +2 cm
Round corners

Caution: Do not burn the fabric edges with the hot air gun.




Joint



**Completed butt joints**

All connection joints between tapes (mitres, T-junctions, corners, intersections etc.) are formed on the same principle.

**Sika® Dilatec® E** Butt joints

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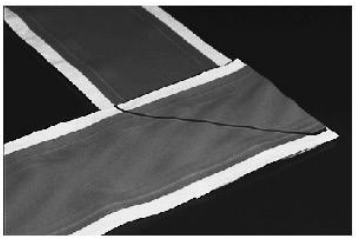
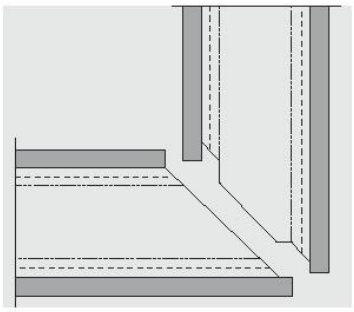
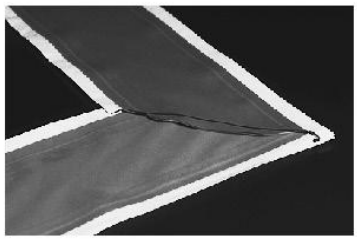


**Cut mitre to size**

- The joint must be in the central movement area of the tape; this means that the tape ends must extend ½ a tape width beyond it.
- Cut off the top tape along a 45° angle. Leave the fabric lap as it is!



Cutting profile



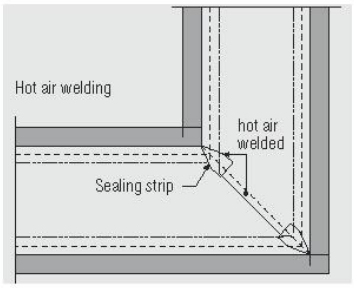
**Cut mitre to size**

- Cut the bottom tape along a 45° angle. Leave the fabric and central area lap as it is.
- Weld the central movement area overlap.

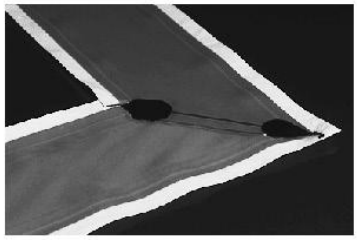
**Sika® Dilatec® E** Mitred joints

**Weld the mitre**

Weld the sealing strip over the butt joint (PVC on one side) (size: 3 cm x [joint length +2 cm]; round corners).




Joint



Attention:
Do not burn the fabric edges with the welding gun.

Finished!

**Sika® Dilatec® E** Mitred joints

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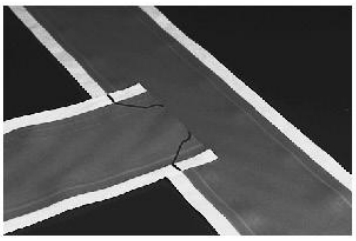
Construction

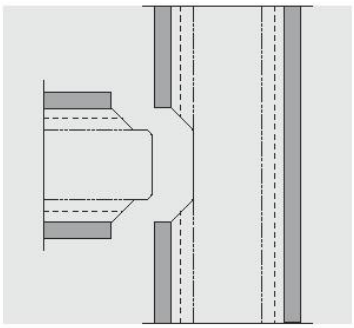


**Top tape overlap**

Position **Sika® Dilatec® E overlap tape**

Mark and cut to size:

- Overlap in movement area 2–3 cm
- Overlapping of fabric edges
- Butt joint between



Cutting profile

**Bottom tape**

Replace the **Sika® Dilatec® E cut top tape** and mark the bottom **Sika® Dilatec® E tape.**

**Sika® Dilatec® E** T-junctions

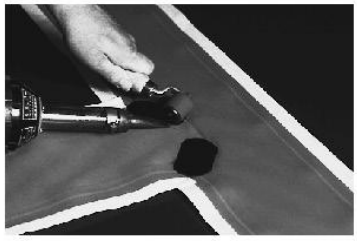
**Bottom tape**

ALWAYS make sure that the rigid area with the fabric insert in the bottom tape is cut out (otherwise the movement zone will be restricted).

Cut out.

**Weld the lap**

Hold the joint together and weld the PVC lap joint.



**Sealing strip**

Weld the sealing strip over the butt joint (PVC on one side) (size: 3 cm × [joint length +2 cm]; round corners).

Caution:
Do not burn the fabric edges with the welding gun.

**Sika® Dilatec® E** T-junctions

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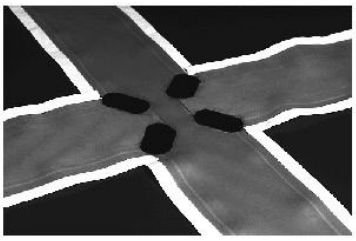
Construction

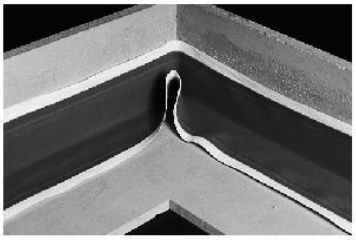


**Intersections**

Intersections are treated as double T-junctions.

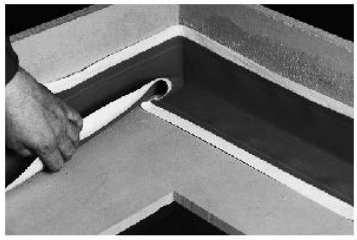
**Notes**

**Sika® Dilatec® E** Cross-junctions



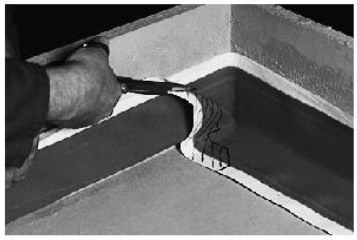
**Internal corners**

Fit the **Sika® Dilatec® E tape** into the internal corner without any creases.



**Fold the internal corner**

Form and mark the fold.



**Cut the internal corner**

Cut out the marked area → butt jointing the fabric-reinforced PVC areas.

Overlap the fabric-only area.

Cut, open and overlap the movement area up to 2–3 cm from the corner (weld the fold there).

**Sika® Dilatec® E** Internal corners

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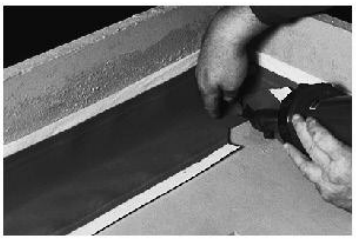


**Welding internal corners**

Internally weld the movement area fold.

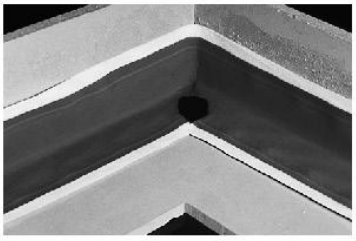
**Welding internal corners**

Then weld the welded fold to the **Sika® Dilatec® E tape** itself.

**Welding internal corners**

Finally weld the rest of the fold.

**Sika® Dilatec® E** Internal corners



**Internal corners**

Caution:
Do not burn fabric edges with the welding gun.

**Notes**

**Sika® Dilatec® E** Internal corners

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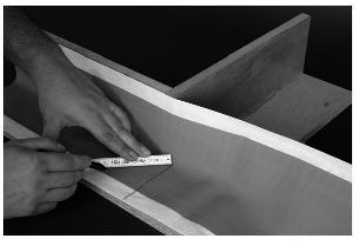
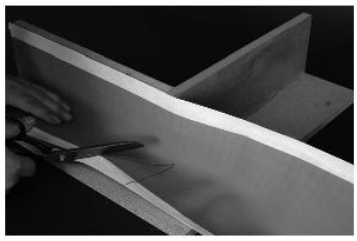
Construction



Mark a 45° angle to the corner on the **Sika® Dilatec® E tape.**



Cut tape and fit around the external corner without any creases. The movement area can be held with **Sika® Contact Adhesive C-733** as an assembly aid.

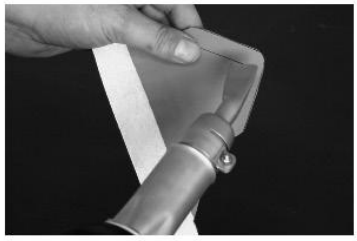
Trim surplus material from the **Sika® Dilatec® E tape** and cut off the fabric edge on one side only.

**Sika® Dilatec® E** External corners

Mark 3 points on tape section.

Complete the marking.

- Overlap in the movement area 2–3 cm
- Overlapping of fabric edges
- Butt joint in between



Cut the tape sections, heat the corner area and shape.

**Sika® Dilatec® E** External corners

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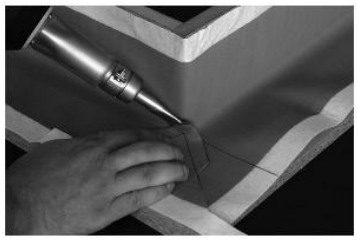
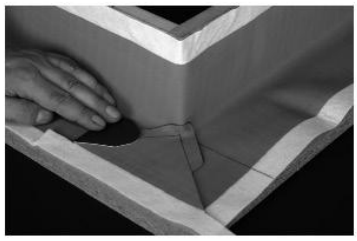
Construction

Fit the tape section, start welding at the corner.



Weld the overlap in the central movement area.



Cut and weld the black sealing strips.

Caution: Do not burn the fabric edges with the welding gun.

**Sika® Dilatec® E** External corners

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Construction

# 4.2. Sika® Dilatec® B-500

**Type B tape installation (with bitumen)**

- For waterproof jointing to bitumen-based waterproofing membranes
- The fabric-laminated side strips are embedded between bitumen sheets using hot bitumen with the "sandwich" method.
- The wider fabric edge at the top ensures a large area of bond to the waterproofing sheets; which ensures its continuity and watertightness.

This seal should then be protected from mechanical damage (e.g. with protective sheeting or bitumen sheets fixed on one side only).

Caution: The bituminous membrane must be cut above the joint to prevent the **Sika® Dilatec® B tape's** movement being restricted.

- Lay the first (or only) bitumen waterproofing membrane layer.
- Cut in the joint area.

Unroll the **Sika® Dilatec® B tape** and coat with hot bitumen. Make sure that the narrow fabric strip is completely saturated.

**Sika® Dilatec® B** Bitumen installation

- Apply the second layer or a 30 cm wide additional strip of the bitumen sheet membrane.
- 1–2 cm of the movement area is then covered.

**Notes**

**Sika® Dilatec® B** Bitumen installation

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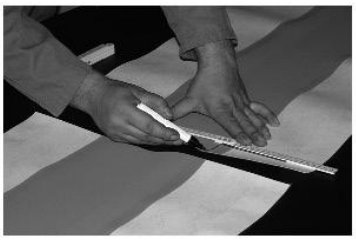
Construction

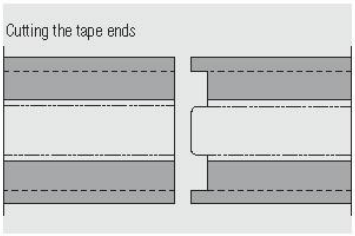


**B type butt joints**

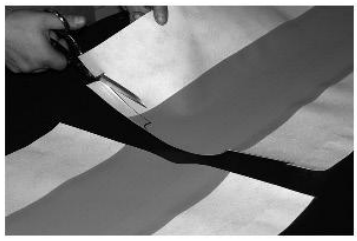
Proceed as follows:

- Overlap weld the movement area (without fabric).
- Overlap the fabric-only strips at the edge for coating with hot bitumen.
- Butt joint the area in between with fabric on one side (at top) and weld the PVC sealing strip from below.

Therefore: Mark about 3 cm lap.



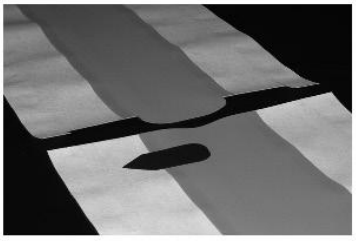

Cutting profile



**Cut the butt joints**

1) Cut tape around the overlap.
2) Cut out the area with PVC below and fabric above for the butt joint.
3) Do not cut away the fabric edges or the central movement area due to the overlapping requirements.

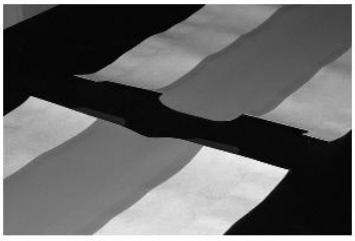
**Sika® Dilatec® B** Butt joints



**Cut the sealing strip**

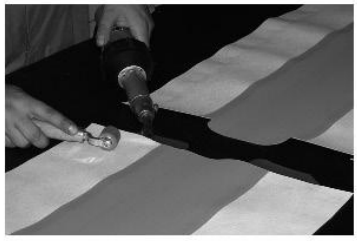
The butt joint area is sealed with the welded sealing strip.

- Width: approx. 6 cm
- Length: joint length +2 cm
- Round corners



**Sealing strip butt joints**

Lay the sealing tape strip on the underside of the **Sika® Dilatec® B tape.**



**Weld the sealing strip tape joint**

Tack the sealing tape, preweld, main weld.

Caution: Do not burn the fabric edges with the welding gun.

**Sika® Dilatec® B** Butt joints

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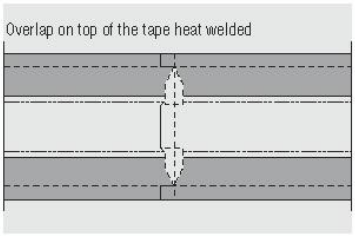
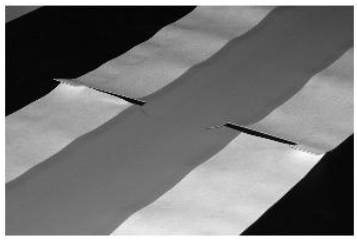
Construction



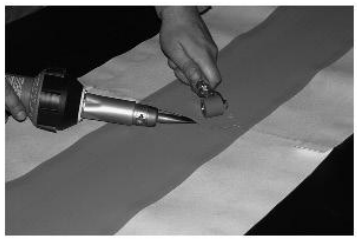

Joint



**Hold the tape joint together**

Hold the joint pieces together.

Weld the sealing strips to the other side of the tape from below.

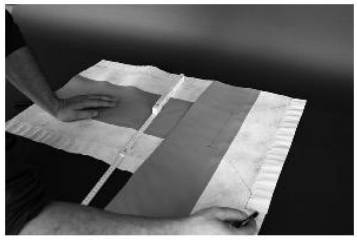


**Tape jointing**

Weld the overlap (movement area).

**Sika® Dilatec® B** Butt joints

Cut the **Sika® Dilatec® B tape** to size (≥ tape width) and cut off the fabric edge on one side only.



Position the **Sika® Dilatec® B** tape section and mark.

– Overlap in movement area 2–3 cm
– Overlapping of fabric edges
– Butt joint in between

Trim the tape sections to size.

**Sika® Dilatec® B** End pieces

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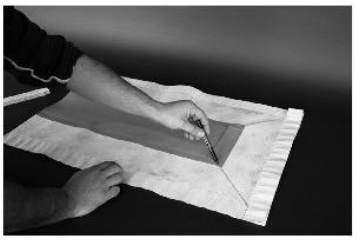
Construction



Position the trimmed tape section and mark on the bottom tape.

Cut the bottom tape.

Cut the edge tape for the butt joint area.

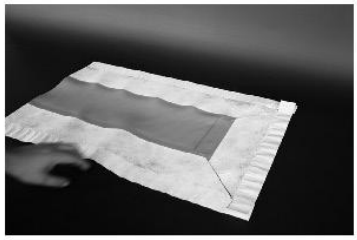
Width: approx. 6 cm
Length: joint length +2 cm
Round corners

Tack the sealing tape strip to the underside of the **Sika® Dilatec® B** tape, preweld, main weld.

**Sika® Dilatec® B** End pieces

Position the cut tape and finish welding the sealing strip to the left and right.

Finish welding the movement area.



Finished end piece.

**Sika® Dilatec® B** End pieces

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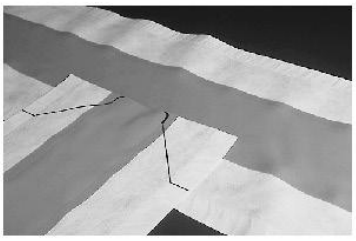
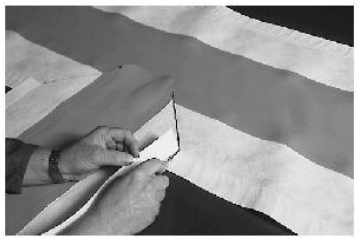


**T-junction**

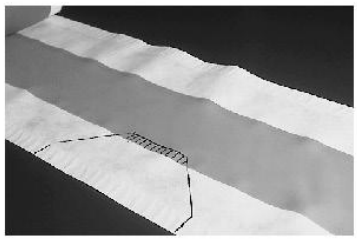
Position, mark and cut the top **Sika® Dilatec® B tape:**

- Overlap with movement area 2–3 cm
- Overlap in fabric edges
- Butt joint in between



**Bottom tape T-junction**

Replace the top cut **Sika® Dilatec® B tape** and mark the bottom **Sika® Dilatec® B tape.**

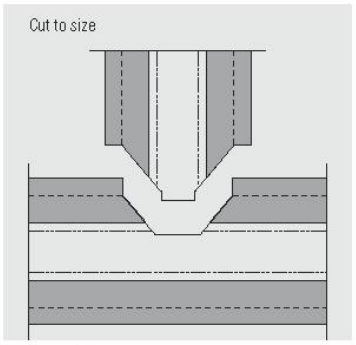


**Bottom tape T-junction**

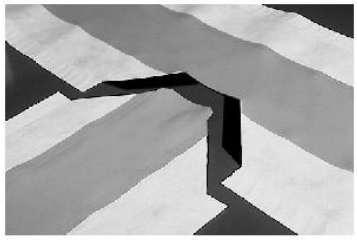
ALWAYS make sure that the rigid area with the fabric insert is cut out in the bottom tape (marked area); otherwise joint movement will be restricted.

Cut out.

**Sika® Dilatec® B** T-junctions




Cutting profile



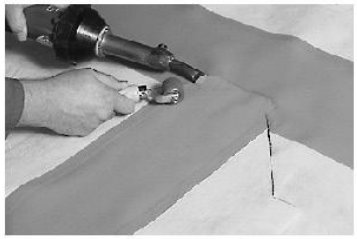
**Cut the edge strips for the T-junction**

The butt joint area is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners

Place the sealing tape strips on the underside of the **Sika® Dilatec® B tape.**

Tack sealing tape, preweld, main weld.



**Hold the T-junction together**

Weld the lap joint (movement area).

Caution:
Do not burn the fabric the edges with the welding gun.

**Sika® Dilatec® B** T-junctions

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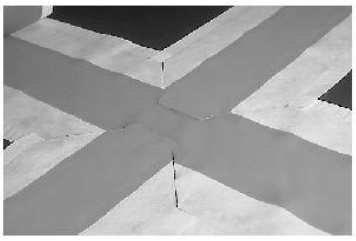
Construction

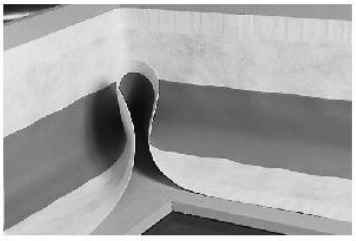


**T-joint/cross-junction**

Intersections: Treat as a double T-joint.

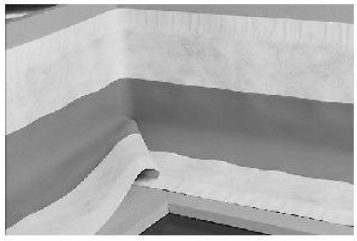
**Notes**

**Sika® Dilatec® B** Cross-junctions



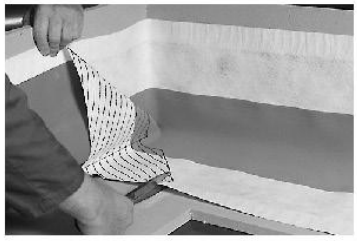
**Internal corners**

Fit the **Sika® Dilatec® B tape** into the internal corner without any creases.



**Fold the internal corner**

Form and mark the fold.



**Cut the internal corner**

Cut out the marked area.

- Butt joint the fabric-reinforced PVC areas
- Overlap the fabric-only area
- Cut open and overlap the movement area up to 2–3 cm from the corner

**Sika® Dilatec® B** Internal corners

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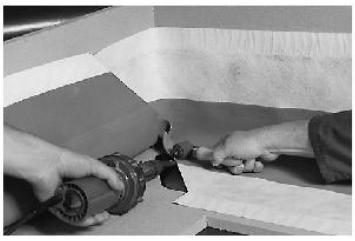
Construction



**Internal corners**

Cut the sealing strips. The butt joint area is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners

**Internal corner welding**

Internally weld the fold.

**Weld the internal corner**

Weld the welded fold to the **Sika® Dilatec® B tape.**

**Sika® Dilatec® B** Internal corners

**Internal corners**

Weld the rest of the fold.

**Notes**

**Sika® Dilatec® B** Internal corners

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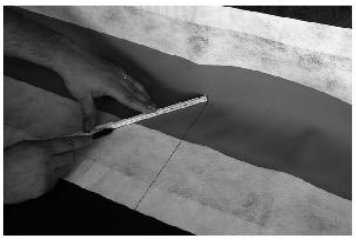
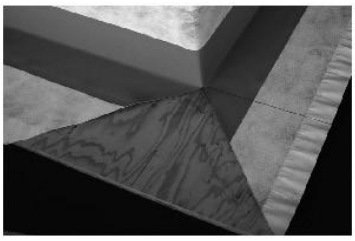
Construction

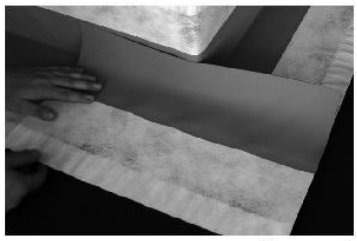


**External corners**

Mark a 45° angle to the corner on the **Sika® Dilatec® B tape.**

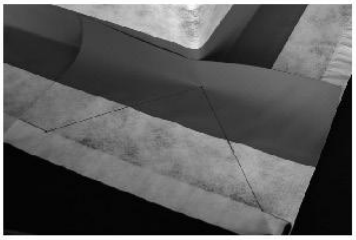


Cut the tape and fit around the external corner without any creases.
The movement area can be held with **Sika® Contact Adhesive C-733** as an assembly aid.



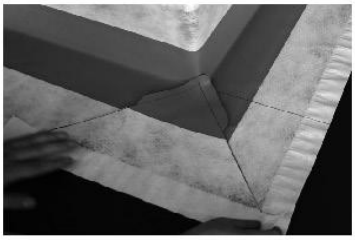
Cut the surplus material from the **Sika® Dilatec® B tape** to size and cut off the fabric edge on one side only.

**Sika® Dilatec® B** External corners



Position the **Sika® Dilatec® B** tape section and mark.

- Overlap in the movement area 2–3 cm
- Overlapping of fabric edges
- Butt joint in between



Trim tape sections, heat the corner area and shape.

Trim the sealing tape for the butt joint area.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners

Tack the sealing tape strips to the underside of the **Sika® Dilatec® B** tape, preweld, main weld.

**Sika® Dilatec® B** External corners

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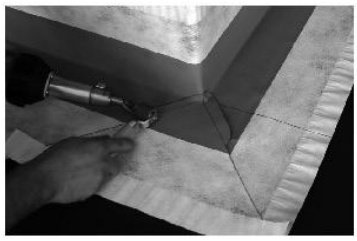
Fit the tape section, start welding at corner.



Weld the overlap in the movement area.

Finished external corner.

**Sika® Dilatec® B** External corners

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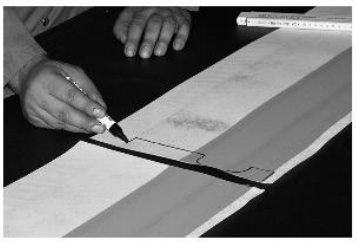
Construction

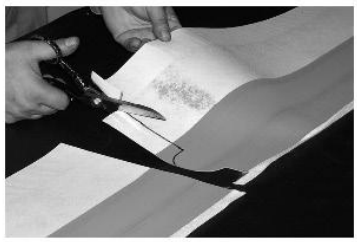
## 4.3. Sika® Dilatec® BE-300



The B-edge = bituminous bond
The E-edge = epoxy bond with
**Sikadur®-Combiflex® CF** or
**Sikadur®-31 CF N**

As follows:

- Weld the overlapping central movement area (without fabric).
- Lap the fabric-only strips at the B+E-edges for bitumen/epoxy bonding.
- Butt joint the area in between with fabric on one side, B-edge above/E-edge below, butt joint and weld the PVC sealing tape areas top and bottom.

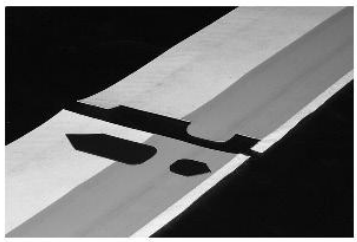


**Cut the butt joints**

Mark 3 cm lap.

Cut the tape around the overlap.

- Cut out the area with PVC below and fabric above and area with the PVC above and fabric below for the butt joint.

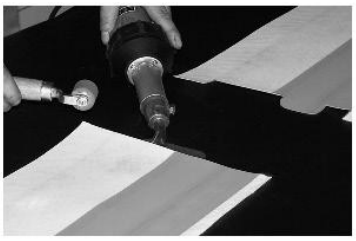


**Type B edge strip joint**

Cut the sealing strip. The butt joint area is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners

**Sika® Dilatec® BE** Butt joints



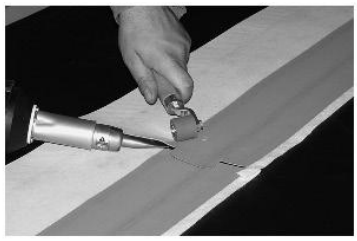
**B-edge strip joints**

Edge strip.

Place the sealing tape strip on the underside of the **Sika® Dilatec® BE tape.**

Tack, preweld, main weld.

Caution:
Do not burn the fabric edges with the welding gun.



**B-edge strip joints**

Hold the joint together.

Weld the sealing strip to the other side of the tape from below.

**Tape joint**

Weld the overlap (movement area).

**Sika® Dilatec® BE** Butt joints

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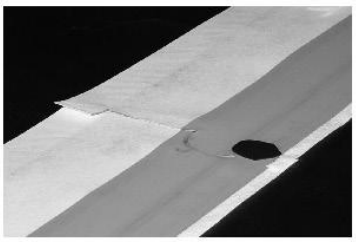


**E-edge tape joint**

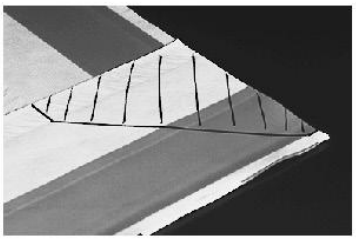
The butt joint area is sealed by the welded sealing strip area.

Width: approx. 3 cm
Length: joint area +2 cm
Round corners

Caution:
Do not burn the fabric edges with the welding gun.

Notes

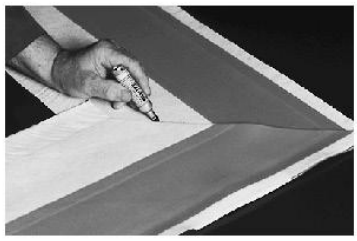
**Sika® Dilatec® BE** Butt joints



**Cut the mitres**

Type B-edge = bituminous bond
Type E-edge = epoxy bond with **Sikadur®-Combiflex® CF** or **Sikadur®-31 CF N**
The joint must be in the movement area; this means that the tape ends must extend ½ a tape width beyond it.

Cut off the top tape along a 45° angle. Leave the fabric edge overlap as it is.



**Cut the mitres**

Cut the bottom tape along a 45° angle. Leave the fabric edge and central movement area lap as it is.

**Weld the mitre**

Cut the sealing strip. The butt joint area is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners

**Sika® Dilatec® BE** Mitred joints

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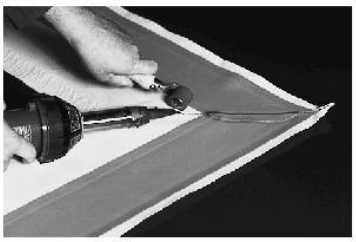


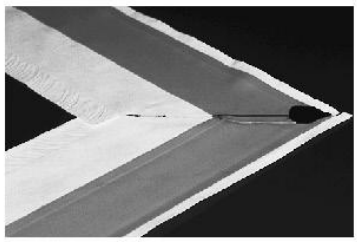
**Mitre joint**

Weld the overlap (movement area).

**Weld the mitre**

Weld the sealing strip on the butt joint (PVC on one side) at the top.

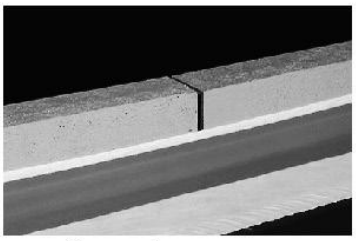
Width: approx. 3 cm
Length: joint area +2 cm
Round corners



Caution:
Do not burn the fabric edges with the welding gun.

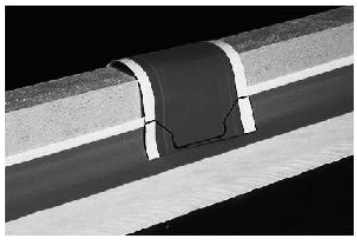
Finished!

**Sika® Dilatec® BE** Mitred joints



Lay **Sika® Dilatec® BE** at an angle.

**Sika® Dilatec® E** in the joint area.



T-junction, top tape.

Position the **Sika® Dilatec® E** overlap tape.

Mark and cut:

- Overlap in movement area 2–3 cm
- Overlapping in fabric edges
- Butt joint in between

**Sika® Dilatec® BE** T-junctions

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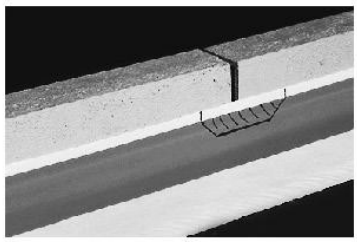
**Bottom tape T-junction**

Replace the **Sika® Dilatec® E tape** and mark the bottom **Sika® Dilatec® BE tape.**



**Bottom tape T-junction**

ALWAYS make sure that the rigid area with the fabric insert in the bottom tape is cut out (marked area).

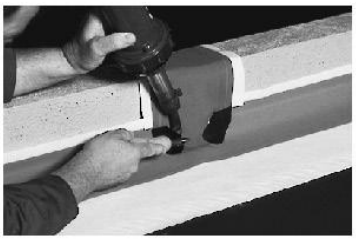
Otherwise joint movement will be restricted.

Cut out.

**Weld the T-junction lap**

Hold the joint together and weld the PVC overlap.

**Sika® Dilatec® BE** T-junctions

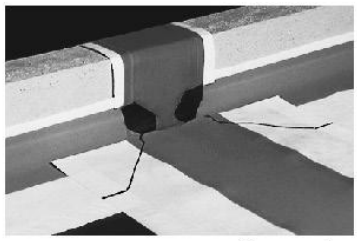


**Sealing strip T-junction**

Weld the sealing strip over the butt joint (PVC on one side).
Joints 3 cm × joint length +2 cm

Width: approx. 3 cm
Length: joint area +2 cm
Round corners

Caution:
Do not burn the fabric edges with the welding gun.



Position, mark and cut the top **Sika® Dilatec® B tape.**

- Overlap in movement area 2–3 cm
- Overlapping fabric edges
- Butt joint in between

**Bottom tape T-junction**

Replace the **Sika® Dilatec® B tape** and mark the bottom **Sika® Dilatec® BE tape.**

**Sika® Dilatec® BE** T-junctions

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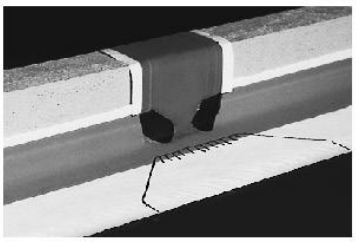
Construction



**Bottom tape T-junction**

ALWAYS make sure that the rigid area with the fabric insert in the bottom tape is cut out (marked area).

Otherwise joint movement will be restricted.

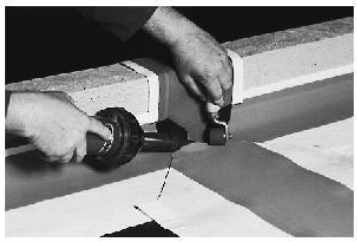
Cut out.

**Cut the sealing strip T-junction**

The butt joint area is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint length + 2 cm
Round corners

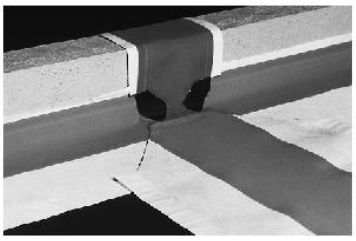
Place the sealing strip on the underside of **Sika® Dilatec® BE tape,** tack the sealing tape, preweld, main weld.



**Hold the T-junction together**

Weld the overlap (movement area).

**Sika® Dilatec® BE** T-junctions



Caution:
Do not burn the fabric edges with the welding gun.

**Notes**

**Sika® Dilatec® BE** T-junctions

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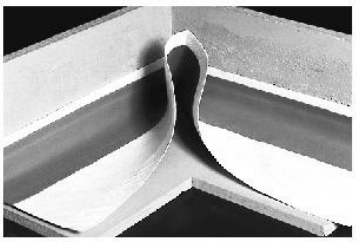
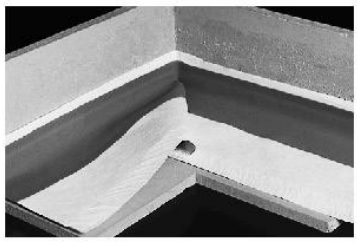
Construction

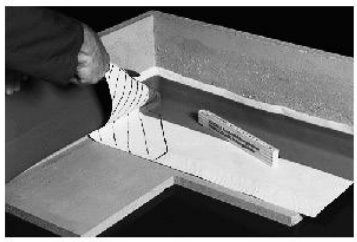


Fit the **Sika® Dilatec® BE tape** into the internal corner without any creases.



**Fold the internal corner**

Form and mark the fold.

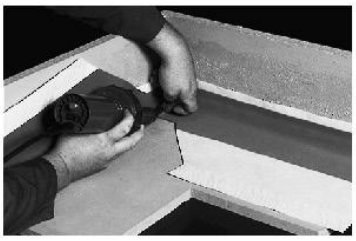


**Cut the internal corner**

Cut out the marked area.

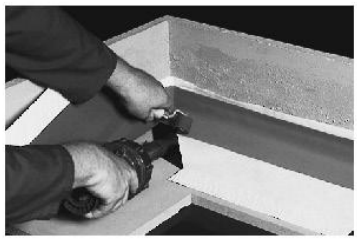
- Butt joint the fabric-reinforced PVC areas.
- Overlap the fabric-only area.
- Cut and overlap the movement area to 2–3 cm from the corner.

**Sika® Dilatec® BE** Internal corners



**Internal corner weld**

Internally weld the fold.



**Cut the edge strip at the internal corner**

The butt joint area is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint area +2 cm
Round corners

**Weld the internal corner**

Weld the welded fold to the **Sika® Dilatec® BE tape.**

**Sika® Dilatec® BE** Internal corners

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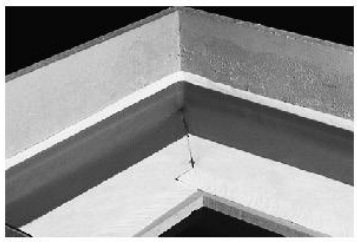
Construction

**Internal corner**

Weld the rest of the fold.



**Internal corner**

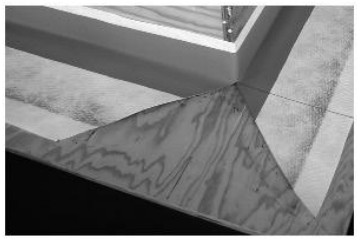
Caution:
Do not burn the fabric edges with the welding gun.

**Notes**

**Sika® Dilatec® BE** Internal corners

**External corner**

Mark 45° angle to the corner on **Sika® Dilatec® BE tape.**



Cut into the tape and fit around the external corner without any creases.

The central movement area can be held with **Sika® Contact Adhesive C-733** as an assembly aid.

Cut the surplus material from the **Sika® Dilatec® BE tape** to size and cut off the fabric edge on one side only.

**Sika® Dilatec® BE** External corners

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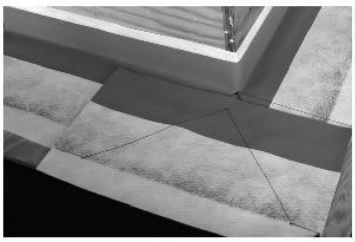
Construction



Position the **Sika® Dilatec® BE** tape sections and mark.

- Overlap in movement area 2–3 cm
- Overlapping of fabric edges
- Butt joint in between

Cut tape sections, heat corner area and shape.

Cut the sealing tape for the butt joint area.

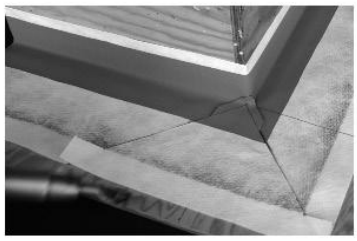
Width: approx. 6 cm
Length: joint length +2 cm
Round corners

Tack the sealing tape strip to the underside of the **Sika® Dilatec® BE** tape, preweld, main weld.

**Sika® Dilatec® BE** External corners

Position the cut tapes and finish welding the sealing strip left and right.

Weld the overlap in the movement area.



Finished external corner.

**Sika® Dilatec® BE** External corners

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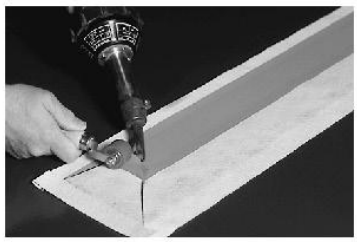
Construction

**End pieces with type B-edge**
Cut the edge tape.

Type B side (wide fabric above): The butt joint area is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners

Place the edge tape strip on the underside of **Sika® Dilatec® BE tape,** tack the sealing tape, preweld, main weld.
Type E side (narrow fabric, wider below) can be lap welded because there is PVC on PVC contact, therefore no sealing strip is necessary.

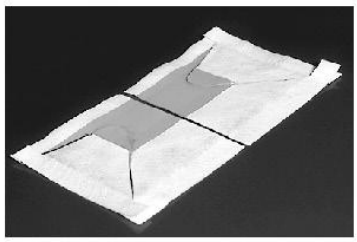


**End pieces with type B-edge**

Hold the joints together.

Weld overlaps (movement area).

Caution:
Do not burn the fabric edges with the welding gun.



End piece left/right.

**Sika® Dilatec® BE** End pieces

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Construction

# 4.4. Sika® Dilatec® BR-500

**Sika® Dilatec® BR** **Sika® Dilatec® ER**

- For homogeneous, waterproof jointing to PVC sheet waterproofing membranes and other PVC components.
- The R-edge is simply welded with the normal PVC hot air welding gun.
- BR types are for connection to bituminous waterproofing systems, plus joints and ends on roofing system edges, roof lights, etc.
- ER types are for jointing synthetic waterproofing membranes to concrete, steel and other substrates, etc.

Proceed as follows:

- Lap weld the PVC area (without fabric).
- Overlap the fabric-only strip at the edge for coating with hot bitumen.
- Butt joint the area in between with fabric on one side (at top) and weld the PVC sealing strip from below.

Therefore: Mark approx. 3 cm lap.

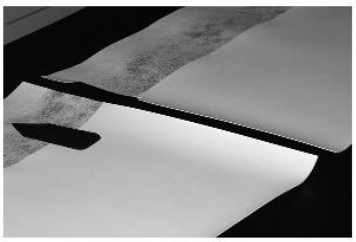
**Cut butt joints**

Cut around the tape overlap:

- Cut out the area with PVC below and fabric above for the butt joint.

Do not cut away the fabric edge and central PVC movement area (overlap).

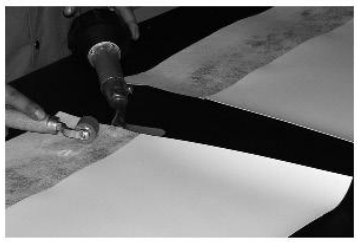
**Sika® Dilatec® BR** Butt joints



**Cut the sealing strip tape joint**

The butt joint area is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners



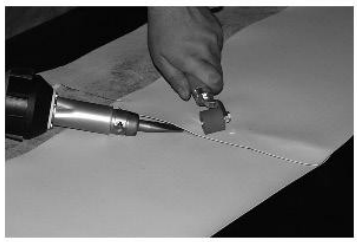
**Sealing strip butt joints**

Place the sealing tape strip on the underside of **Sika® Dilatec® BR tape.**

Weld and tack the sealing tape.

Preweld, main weld.

Caution:
Do not burn the fabric edges with the welding gun.



**Hold the tape joint together**

Hold the joint together.

Weld the sealing strip to the other side of the tape from below.

Weld the overlap in the PVC area.

**Sika® Dilatec® BR** Butt joints

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Construction

**Cut the mitre**

Cut off the top tape along a 45° angle. Leave the fabric overlap as it is.

**Cut the mitre**

Cut the bottom tape along a 45° angle. Leave the fabric and overlap in the movement area as they are.

**Cut the sealing strip for the mitre**

The butt joint is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners

**Sika® Dilatec® BR** Mitred joints

**Mitred joints**

Hold the joint together.

Weld the overlap (PVC area).

Caution:
Do not burn the fabric edges with the welding gun.

**Notes**

**Sika® Dilatec® BR** Mitred joints

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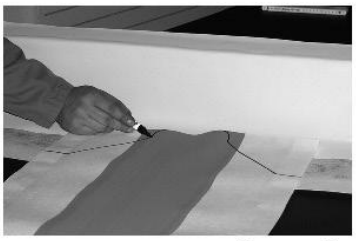


Position, mark and cut the top **Sika® Dilatec® B tape**.

- Overlap in movement area 2–3 cm
- Overlapping in fabric edges
- Butt joint in between

**Bottom tape T-junction**

Replace the top **Sika® Dilatec® B tape** and mark the bottom **Sika® Dilatec® BR tape.**

**Bottom tape T-junction**

ALWAYS make sure that the rigid area with the fabric insert in the bottom tape is cut out (marked area).

Otherwise joint movement will be restricted.

Cut out.

**Sika® Dilatec® BR** T-junctions

**Cut the sealing strip T-junction**

The butt joint area is sealed with the welded sealing strip.

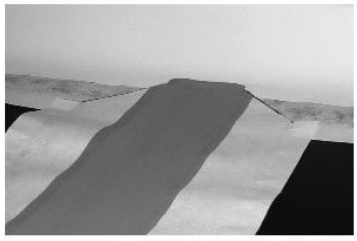
Width: approx. 6 cm
Length: joint length +2 cm
Round corners

Place the sealing tape strip on the underside of **Sika® Dilatec® BR tape.**

Tack the sealing tape, preweld, main weld.

**Hold the T-junction together**

Weld the overlap (central movement area).



**T-junction**

Caution:
Do not burn the fabric edges with the welding gun.

**Sika® Dilatec® BR** T-junctions

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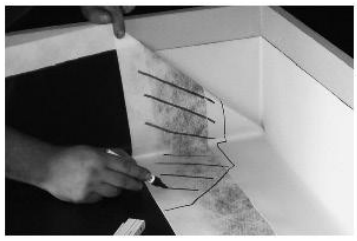
Construction

Joint assembly aid:
The **Sika® Contact Adhesive C-733** is applied thinly on both materials with a lamb's wool roller. After the initial drying (flash off) time, the **Sika® Dilatec® BR tape** is pressed down firmly from the centre towards the outside.

Make sure that the welding areas are free from adhesive. If contaminated, clean with **Sika® Colma® Cleaner.**

Follow the drying instructions.

Fit the **Sika® Dilatec® BR tape** into the internal corners without any creases.



**Fold the internal corner**

Form and mark the fold.

Cut out the marked area.

- Butt joint the fabric-reinforced PVC area.
- Overlap the fabric-only area.
- Cut and overlap the movement area to 2–3 cm from the corner.

**Sika® Dilatec® BR** Internal corners

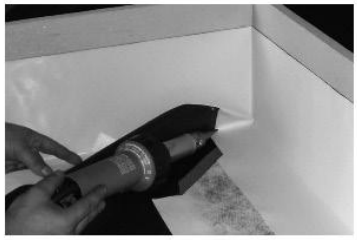
**Cut the sealing strip for internal corners**

The butt joint area is sealed with the welded sealing strip.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners

**Internal corner welding**

Internally weld the fold.



**Internal corner welding**

Weld the welded fold to the **Sika® Dilatec® BR tape.**

**Sika® Dilatec® BR** Internal corners

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Construction

**Internal corners**

Weld the rest of the fold.

**Finished internal corners**

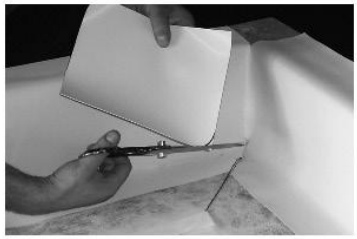
Caution:
Do not burn the fabric edges with the welding gun.

**Notes**

**Sika® Dilatec® BR** Internal corners

For an assembly aid and for information on the fold formation, see the section on **Sika® Dilatec® BR** internal corners.

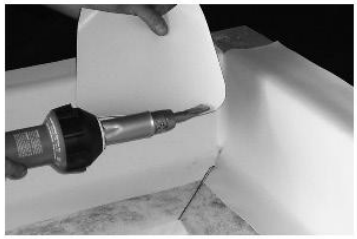
Cut the **Sika® Dilatec® BR tape** horizontal sections.



**Roof edges internal corners**

Cut the cover from **Sika® Dilatec® BR.**

Check the overlap.



**Roof edges internal corners**

Round the corners, heat and shape.

**Sika® Dilatec® BR** Roof edges internal corners

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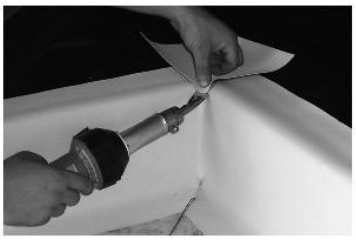
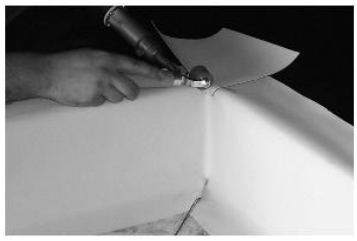
Construction



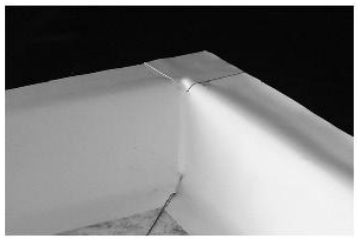
**Roof edges internal corners**

Weld the cover (rounding).



**Roof edges internal corners**

Weld the rest.



**Roof edges internal corners**

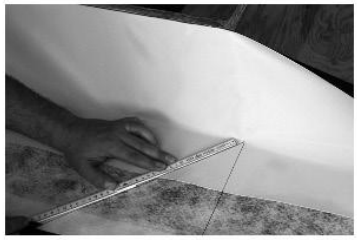
Finished corner.

**Sika® Dilatec® BR** Roof edges internal corners

Assembly aid:
The **Sika® Contact Adhesive C-733** is applied thinly on both materials with a lamb's wool roller. After the initial drying (flash off) time, the **Sika® Dilatec® BR tape** is pressed down firmly from the centre towards the outside.

Make sure that the weld areas are free from adhesive. If contaminated, clean with **Sika® Colma® Cleaner.**

Follow the drying instructions.



**External corners**

Mark a 45° angle to the corner on the **Sika® Dilatec® BR tape.**

Cut into the tape and fit around the external corner without any creases.
The movement area can be held with **Sika® Contact Adhesive C-733** an assembly aid.

**Sika® Dilatec® BR** External corners

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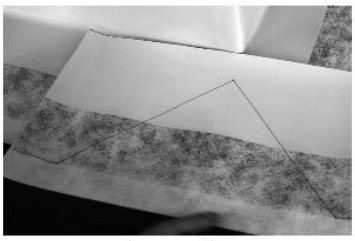
Construction

Cut surplus material from the **Sika® Dilatec® BR tape** to size and cut off the fabric edge on one side only.



Position the **Sika® Dilatec® BR** section and mark.

- Overlap in dilation area 2–3 cm
- Overlapping of fabric edges
- Butt joint in between

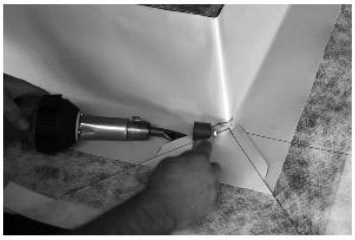
Cut the tape sections, heat the corner area and shape.

**Sika® Dilatec® BR** External corners

Cut the sealing tape for the butt joint area.

Width: approx. 6 cm
Length: joint length +2 cm
Round corners

Tack the sealing tape strip to the underside of the **Sika® Dilatec® BR** tape, preweld, main weld.



Position the cut tape and finish welding the sealing strip left and right.

Weld the overlap in the central movement area.

**Sika® Dilatec® BR** External corners

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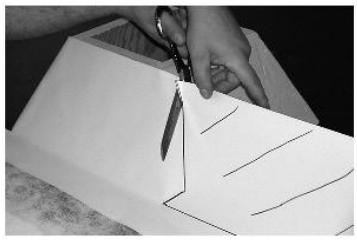
Construction

**Roof dome light connections**

To simplify the detailing work, the tape is fully bonded along the edging. Make sure that the welds remain free of adhesive. The **Sika® Contact Adhesive C-733** is applied thinly on both materials. After the initial drying (flash off) time, the **Sika® Dilatec® BR tape** is pressed down firmly from the centre towards the outside.

Follow the drying instructions.



**Roof dome light connections**

Cut into the **Sika® Dilatec® BR tape.** Add a 4–5 cm lap along the vertical roof light edges; cut off flush along the bottom edge.

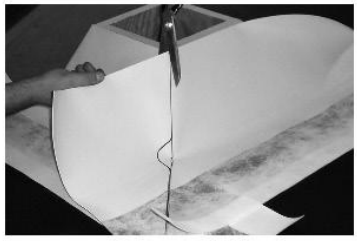
**Roof dome light connections**

When heated with the welding gun, the overlap can easily be shaped around the edges.

**Sika® Dilatec® BR** Roof dome light connections

**Roof dome light connections**

Position the crossover tape (which must completely overlap the longitudinal tape) and fully bond along the edging with **Sika® Contact Adhesive C-733.** Keep the weld area free of adhesive, otherwise clean with **Sika® Colma® Cleaner.**



**Roof dome light connections**

Cut the top tape:

- Keep 1 cm away from the edge
- Add a weld strap in the corner (approx. 3 cm)
- Tape the joint along a 45° angle
- Allow the fabric area to overlap

**Roof dome light connections**

Mark the bottom **Sika® Dilatec® BR tape.**

**Sika® Dilatec® BR** Roof dome light connections

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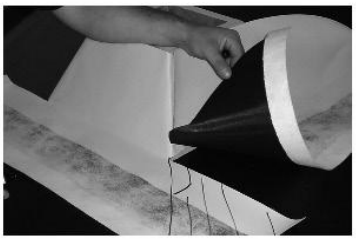
Construction



Cut out the marked area.

- Butt joint in the area with fabric on one side
- Leave the overlap in the PVC area on both sides for the weld
- Leave the fabric area for overlapping

The sealing tape is welded from below around the butt joint.

Width: approx. 6 cm
Length: joint length + 2 cm
Round corners

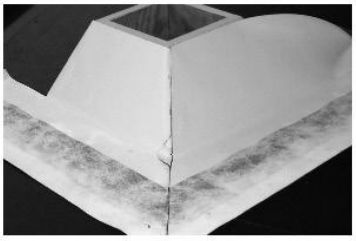
Tack the sealing tape, preweld, main weld.

Hold the **Sika® Dilatec® BR tape** together.

Weld the rest.

Caution:
Do not burn the fabric edges with the welding gun.

**Sika® Dilatec® BR** Roof dome light connections



Finished roof dome light corners and connections.

**Notes**

**Sika® Dilatec® BR** Roof dome light connections

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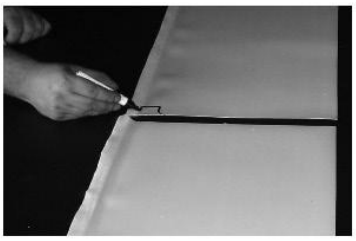
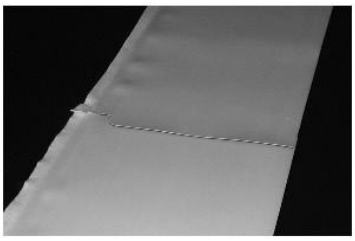
Construction

# 4.5. Sika® Dilatec® ER-350



Proceed as follows:

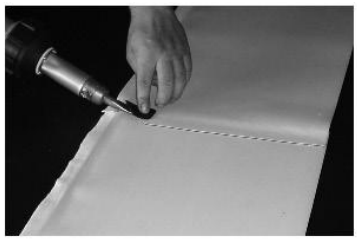
- Lap weld the PVC area.
- Overlap the fabric-only strips at the edge for bonding.
- Butt joint the area in between with fabric on one side (below!) and weld the PVC sealing tape above. Therefore: Mark about 3 cm lap.



**Cut the butt joint**

Cut the tape around the overlap.

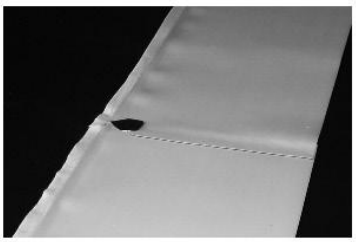
- Cut out the area with PVC above and fabric below for the butt joint.



**Weld the butt joint overlap**

Hold the joint together and weld the overlap in the PVC area.

**Sika® Dilatec® ER** Butt joints



**Butt joints**

Weld the butt joint.

Weld the sealing tape strip on top of the tape.

The butt joint area is sealed with the welded sealing strip.

Width: approx. 3 cm
Length: joint length +2 cm
Round corners

Caution:
Do not burn the fabric edges with the welding gun.

**Notes**

**Sika® Dilatec® ER** Butt joints

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Construction

**Internal corners, fabric edge below**

Assembly aid:
The **Sika® Contact Adhesive C-733** is applied thinly on both materials with a lamb's wool roller. After the initial drying (flash off) time, the **Sika® Dilatec® ER tape** is pressed down firmly from the centre towards the outside. Make sure that the weld areas are free from adhesive. If contaminated, clean with **Sika® Colma® Cleaner.**

Follow the drying instructions.

**Internal corners, fabric edge below**

Fit the **Sika® Dilatec® ER tape** into the internal corner without any creases.

Form, fold and mark the fold.

**Internal corners, fabric edge below**

Cut out the marked area.

- Butt joint the fabric-reinforced PVC area.
- Overlap the fabric-only area.
- Cut and overlap the movement area to 2–3 cm from the corner (weld fold here).

**Sika® Dilatec® ER** Horizontal fabric edged internal corners

**Internal corners, fabric edge below**

Internally weld the fold.

**Fabric edged internal corner welding**

Weld the welded fold to the **Sika® Dilatec® ER tape.**

**Internal corners, fabric edge below**

Weld the rest of the fold.

**Sika® Dilatec® ER** Horizontal fabric edged internal corners

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Construction

**Internal corners, fabric edge below**

Caution:
Do not burn the fabric edges with the welding gun.

**Notes**

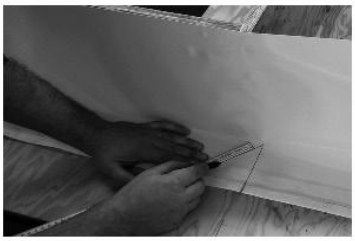
**Sika® Dilatec® ER** Horizontal fabric edged internal corners

**External corners, fabric edge below**

Assembly aid:
The **Sika® Contact Adhesive C-733** is applied thinly on both materials with a lamb's wool roller. After the initial drying (flash off) time, the **Sika® Dilatec® ER tape** is pressed down firmly from the centre towards the outside.

Make sure that the weld areas are free from adhesive. If contaminated, clean with **Sika® Colma® Cleaner.**

Follow the drying instructions.



**External corners**

Mark a 45° angle to the corner on the **Sika® Dilatec® ER tape.**

Cut into the tape and fit around the external corner without any creases.
The central movement area can be held with **Sika® Contact Adhesive C-733** as an assembly aid.

**Sika® Dilatec® ER** Horizontal fabric edged external corners

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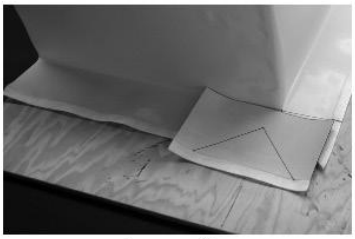
Construction

Cut surplus material from the **Sika® Dilatec® ER tape** to size.



Position the **Sika® Dilatec® ER** tape section and mark.

- Overlap in movement area 2–3 cm
- Overlapping of fabric edges
- Butt joint in between

Cut the tape section, heat the corner area and shape.

**Sika® Dilatec® ER** Horizontal fabric edged external corners

Weld overlaps in the movement area.

Cut the sealing tape for the butt joint area.

Width: approx. 6 cm
Length: joint length + 2 cm
Round corners

Tack the sealing tape strip to the top of the **Sika® Dilatec® ER** tape, preweld, main weld.

Finished external corner.

**Sika® Dilatec® ER** Horizontal fabric edged external corners

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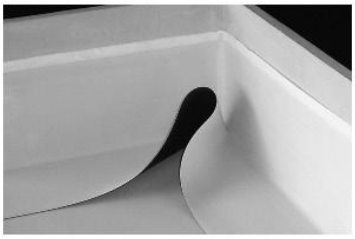
Construction

**Internal corners, fabric edge above**

Assembly aid:
The **Sika® Contact Adhesive C-733** is applied thinly on both materials with a lamb's wool roller. After the initial drying (flash off) time, the **Sika® Dilatec® ER tape** is pressed down firmly from the centre towards the outside.

Make sure that the weld areas are free from adhesive. If contaminated, clean with **Sika® Colma® Cleaner.**

Follow the drying instructions.



**Internal corners, fabric edge above**

Fit the **Sika® Dilatec® ER tape** into the internal corner without any creases.

**Internal corner, fabric edge above**

Form, fold and mark fold.

- Cut out the marked area.
- Cut and overlap the PVC area to 2–4 cm from the corner (weld the fold there).

**Sika® Dilatec® ER** Vertical fabric edged internal corners

**Internal corners, fabric edge above**

Internally weld the fold.

**Internal corners, fabric edge above**

Weld the welded fold to the PVC waterproofing membrane.

**Internal corners, fabric edge above**

Weld the rest of the fold.

**Sika® Dilatec® ER** Vertical fabric edged internal corners

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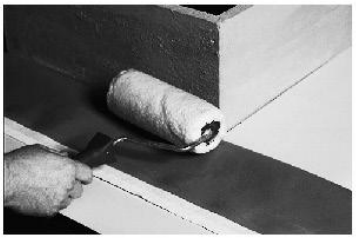


Assembly aid:

The **Sika® Contact Adhesive C-733** is applied thinly on both materials with a lamb's wool roller. After the initial drying (flash off) time, the **Sika® Dilatec® ER tape** is pressed down firmly from the centre towards the outside.

Make sure that the weld areas are free from adhesive. If contaminated, clean with **Sika® Colma® Cleaner.**

Follow the drying instructions.

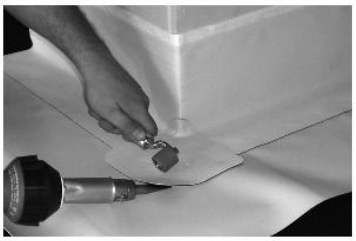
**External corners, fabric edge vertical**

Fit the **Sika® Dilatec® ER tape** around the external corner without any creases.

**External corners, fabric edge vertical**

Weld the **Sika® Dilatec® ER** edge to the PVC waterproofing membrane.

**Sika® Dilatec® ER** Vertical fabric edged external corners



**External corners, fabric edge above**

Cut corner sections from **Sika® Dilatec® ER.** Check the overlap.

Round the corners, heat and shape.

**External corners, fabric edge above**

Weld the corner section.

**Notes**

**Sika® Dilatec® ER** Vertical fabric edged external corners

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# 4.6. Materials checklist for Sika® Dilatec® tapes installation

**Materials checklist for Sika® Dilatec® tapes installation**

**Sika® Dilatec® E-220**

- Masking tape
- Sika® Dilatec® sealing tape 0.50 × 2.00 m
- Sikadur®-Combiflex® CF adhesive or Sikadur®-31 CF N 600–800 g/m²
- Sika® Colma® Cleaner
- Sika® Contact Adhesive C-733, 5 and 15 kg packs, coverage 500–800 g/m² (as an assembly aid)
- Sikadur®-501 sand, Ø = 0.3–0.9 mm

**Sika® Dilatec® B-500**

- Masking tape
- Sika® Dilatec® sealing tape 0.50 × 2.00 m
- Sika® Colma® Cleaner

**Sika® Dilatec® BE-300**

- Masking tape
- Sika® Dilatec® sealing tape 0.50 × 2.00 m
- Sikadur®-Combiflex® CF adhesive or Sikadur®-31 CF N 300–400 g/m²
- Sika® Colma® Cleaner
- Sikadur®-501 sand, Ø = 0.3–0.9 mm

**Sika® Dilatec®** Materials checklist

**Sika® Dilatec® BR-500**

- Masking tape
- Sika® Dilatec® sealing tape 0.50 × 2.00 m
- Sika® Contact Adhesive C-733, 5 and 15 kg packs, coverage 500–800 g/m² (as an assembly aid)
- Sika® Colma® Cleaner

**Sika® Dilatec® ER-350**

- Masking tape
- Sika® Dilatec® sealing tape 0.50 × 2.00 m
- Sikadur®-Combiflex® CF adhesive or Sikadur®-31 CF N 300–400 g/m²
- Sika® Colma® Cleaner
- Sika® Contact Adhesive C-733, 5 and 15 kg packs, coverage 500–800 g/m² (as an assembly aid)
- Sikadur®-501 sand, Ø = 0.3–0.9 mm

**Sika® Dilatec®** Materials checklist

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# 5. Quality Control

**Testing of welded seams**
All welded seams should be tested for watertightness.

**Visual test with screw driver**

- correctly heat welded seams show continuous welding 'rope' at seam edge. Irregular, or interrupted rope could be the sign of voids or capillaries in the seam
- glide the head of screw driver (approx. size 2) with slight pressure along seam edge and check visually
- any voids or capillaries should be rectified with hand held welding gun and 20mm Silicone roller

# 6. Disclaimer and address of Sika Company

This Method Statement is provided by Sika as a 'standard proposal' for the application of Sika® Dilatec® systems. Please also refer to the specific recommendations in the relevant Product data sheet for each material (Sika® Dilatec® Tapes, Sikadur® 31 CF and Sikadur® Combiflex® Adhesive)
It always remains the responsibility of the engineer to confirm the product suitability and the correct method for any given application.
Where alternative methods or criteria to those outlined here are to be used, these must first be submitted to Sika Technical Services for prior approval and agreement in writing, before the commencement of any works. Sika can not accept responsibility or liability due to any other variations or conditions.

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