

# Installation instructions SOLITEX WELDANO®

## Installation steps



### 1a. Fit the flashing

If there are longitudinal joints with the eave flashing, first install SOLITEX WELDANO-S 3000 sealing strips parallel to the eave (lower edge flush with the edge of the decking).



### 1b. Fit the flashing



### 2a. Install the membrane and overlap

Roll out the membrane parallel to the eave and use clout nails or fastening staples that are at least 10 mm (3/8") wide and 8 mm (5/16") long approximately 2 cm (7/8") away from the edge of the membrane to fasten the membrane in the overlap area in a manner that protects against moisture.

At the bargeboard, guide the membrane up to the upper edge of the counter batten or the bargeboard itself.



### 2b. Install the membrane and overlap

Overlap the membranes at least 10 cm (4"). The printed markings are an aid to orientation.



### 3a. Overlap with WELDANO TURGA solvent welding agent

Use the brush provided in the bottle to apply solvent welding agent inside the overlap at the heat-welded joint. Press the bottle lightly here. The effective joint width (area covered with solvent welding agent) must be at least 3 cm (1 1/4") wide and must extend as far as the edge of the overlapping membrane.



### 3b. Overlap with WELDANO TURGA solvent welding agent

The solvent welding agent should flow out slightly from the edge of the heat-welded joint to ensure that the edge is heat-welded too. Remove any other excess solvent welding agent with a cloth.



**4. Rub the overlap into place and check it**

Place one membrane on top of the other immediately, ensuring there are no folds or creases, and press into place (e.g. using a pro clima ROLLFIX silicone roller).



**5a. Alternative: Heat-welding the overlap using a hot air gun**

Place the hot air nozzle into the overlap of the heat-welded joint and move it along the edge.

The effective joint width must be at least 2 cm (7/8") wide and must extend as far as the edge of the overlapping membrane.



**5b. Alternative: Heat-welding the overlap using a hot air gun**

Place one membrane on top of the other immediately, ensuring there are no folds or creases, and press into place (e.g. using a pro clima ROLLFIX silicone roller).

The heat-welded joint should be checked subsequently for leaks (e.g. using a nail or the tip of a pencil).

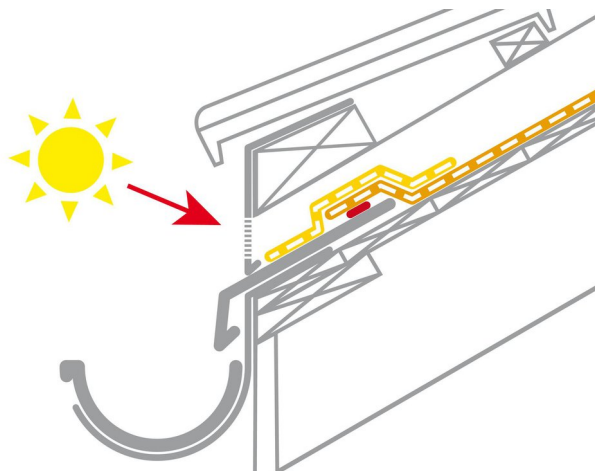


**6b. Sealing at eaves**

Install the membrane and heat-weld it above the eave flashing using SOLITEX WELDANO-S 3000.

Clean the eave flashing and stick the lower edge of the membrane with ORCON CLASSIC.

If a PVC-coated eave flashing is used, this can be directly heat-welded to the roof lining membrane in a homogeneous manner in certain cases. This should be checked in advance.



**6c. UV protection for the membrane in the eaves area**

Sealing at eaves.

Apply the full-surface self-adhesive SOLTEMPA strip over the joint.



**7. Installation at valleys**

First lay a membrane into the valley longitudinally.

Then heat-weld the horizontal membranes to the valley membrane in a windtight and waterproof manner, allowing 10 cm (4") of an overlap.



**8. Counter battens not covered over**

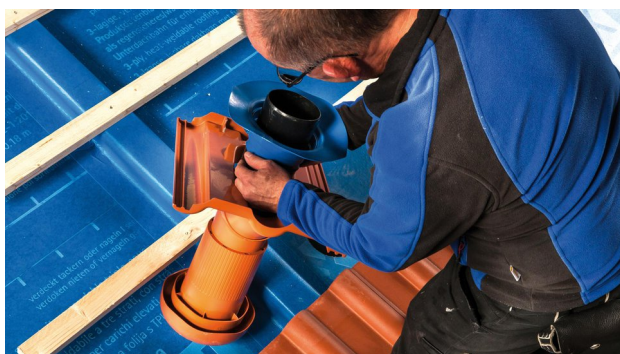
If the counter battens are fitted on top of the membrane and/or if the membrane is used as a temporary covering/seal during the construction phase, TESCON NAIDECK mono system nail sealing tape should generally be applied under the counter battens.



**9. Counter battens covered over**

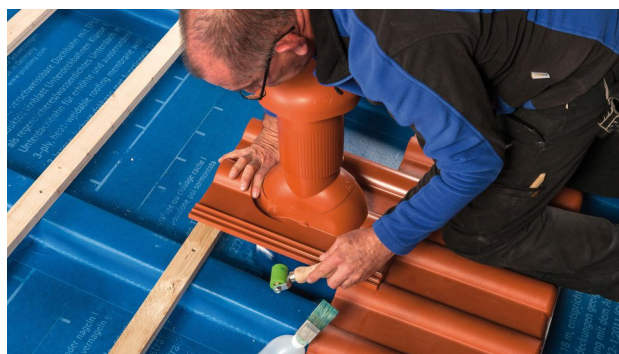
Apply WELDANO-S 3000 sealing strips over the counter battens and heat-weld them to the roof lining membrane on both sides. The counter battens must be dry.

Alternatively, the roof lining membrane can also be installed directly over the counter battens.



**10a. On slightly slanted roofs: Joint at pipe feed-throughs**

Clean the pipe that is to be sealed.  
Pull WELDANO ROFLEX over the pipe and ...



**10b. On slightly slanted roofs: Joint at pipe feed-throughs**

... heat-weld the seal flange to the roof lining membrane (using solvent welding agent or hot air gun).  
Press the joint firmly into place and check for leaks.



**10c. On slightly slanted roofs: Joint at pipe feed-throughs**

Stick the top of the pipe grommet to the pipe using TESCON VANA.



**10d. On slightly slanted roofs: Joint at pipe feed-throughs**

Tip: For larger roof vents, WELDANO ROFLEX can be enlarged using a piece of membrane.



**11a. On steep roofs: Joint at pipe feed-throughs**

Heat-weld the grommet around the edges using the WELDANO TURGA solvent welding agent or hot air. The effective joint width (area covered with solvent welding agent) must be at least 3 cm (1 1/4") wide and must extend as far as the edge of WELDANO ROFLEX PLUS. Use a roller to press the grommet in place.



**11b. On steep roofs: Joint at pipe feed-throughs**

Prepare a sealing strip of SOLITEX WELDANO-S 3000 to suit the roof pitch and pipe diameter.



**11c. On steep roofs: Joint at pipe feed-throughs**

Guide the sealing strip around the pipe and heat-weld to one another and to the sealing flange of the grommet using WELDANO TURGA. Use a roller to press the bond in place.



**11d. On steep roofs: Joint at pipe feed-throughs**

In addition, stick the sealing strip of SOLITEX WELDANO-S 3000 to the pipe and in the overlap area of the sealing strip using pro clima TESCON VANA. You're finished!



**12. On slightly slanted roofs: Joints with protruding building components (e.g. chimneys)**

Clean the subsurface. Heat-weld the component to the roof lining membrane using a strip of SOLITEX WELDANO-S 3000 on each side and the WELDANO INVEX system shaped element (using solvent welding agent or a hot air gun) in a waterproof manner, ensuring there are no folds or creases. Press the joint firmly into place and check for leaks.

Form the inner corners in an analogous manner using the WELDANO INCAV system shaped element.



**13. On steep roofs: Joints with protruding building components (e.g. chimneys)**

Put the membrane in place on the adhesive bed, leaving slack to allow for expansion.

Do not press the adhesive completely flat so as to allow for relative motion between components.



#### 14. Installation of a water deflector

Create a water deflector with a lateral fall above the integrated roof element and stick it to the membrane. Form the water deflector in such a way that moisture is guided by a continuous counter batten into the next adjacent field that does not have an integrated roof element.



#### 15. Sealing at skylights

Seal the skylight all around the window up to the upper edge of the frame using SOLITEX WELDANO 3000. Heat-weld the membrane in the corners using the WELDANO TURGA solvent welding agent.



#### 16. Sealing at skylights

Affix SOLITEX WELDANO 3000 to the frame using pro clima TESCON VANA. You're finished!

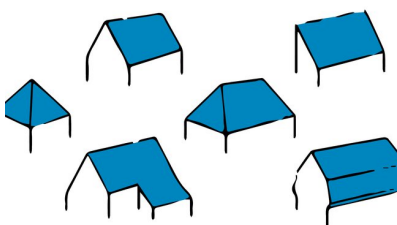
## SOLITEX WELDANO® cutting and welding service

### Seal your roofs tight even more quickly and easily

Do you have a roof structure that is to be installed with a roof lining membrane that is homogeneously welded together? If so, you no longer need to worry about the joining and cutting of the individual membranes. For roof areas of 50 m<sup>2</sup> and greater, pro clima will prepare your SOLITEX WELDANO 3000 roof lining membrane for you: in an automated, highly effective manner with reliable seal tightness and at a fair price. This saves valuable installation time on site and makes you less dependent on weather conditions. Please simply send us your roof drawing/description by e-mail when submitting your enquiry. Alongside standard roof shapes such as L-shapes and rectangles, we can also carry out pre-welding for special roof shapes such as those with roof features involving valleys.

### Advantages

- Faster installation thanks to time savings on the building site
- Sheets that are cut, welded and delivered specifically for your project
- Reliable, uniform quality of work thanks to machine-welded seams
- Less dependency on building site conditions: no welding in the wet, faster protection against weathering
- Available for roof areas of 50 m<sup>2</sup> and greater

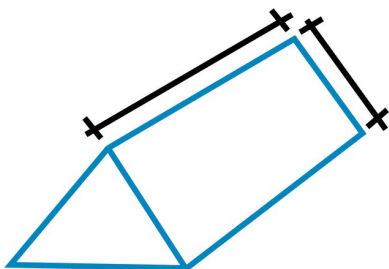


#### 1. Your roof design

What type of roof is involved? Gable roof, pitch roof, tented roof, etc. Please specify the type of roof and provide an outline sketch of the roof with the actual lengths and surface areas. Please also take into account special structures such as adjacent valleys, etc.

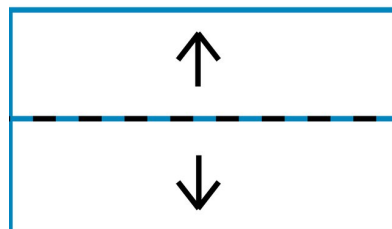
### 2. Specification of eave length and bargeboard length

Please specify in your drawing the dimensions of the bargeboards and eaves and all dimensions – e.g. valley lengths – to be taken into account in determining the surface area.



### 3. Specification of ridge position and water run-off direction

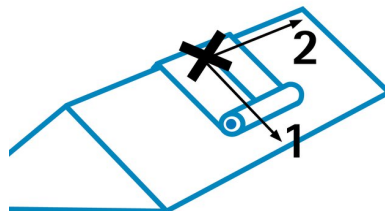
Please indicate on your drawing the position of the ridge with a line and the water run-off direction with a direction arrow.



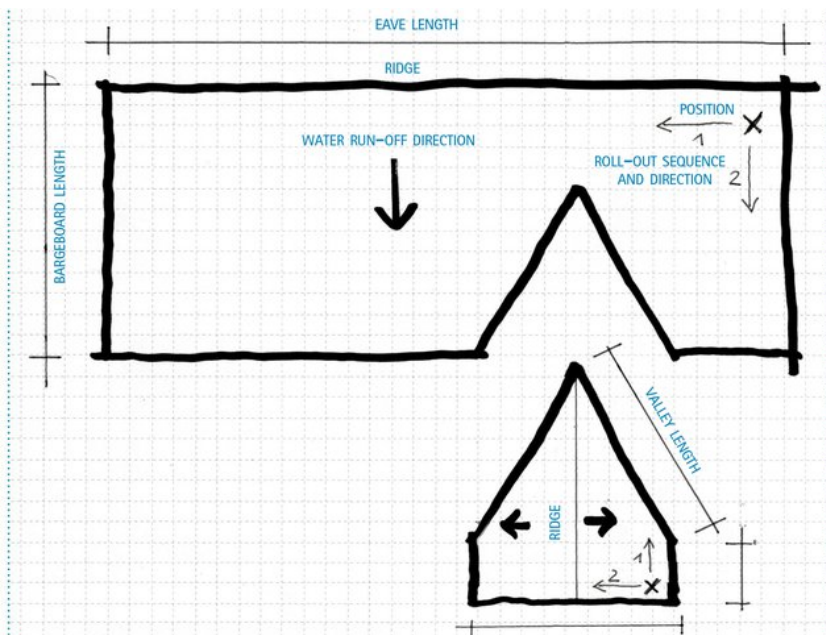
### 4. Specification of positioning and roll-out direction (longitudinal and perpendicular)

The pre-fabricated sheeting is generally delivered to your building site as a package that is rolled in two directions.

Have you planned a specific roll-out position, direction and sequence? If so, please mark the positioning point with a cross. Ideally, you should indicate the sequence of roll-out directions with arrows and sequential numbering (1, 2).



This example provides guidance



## Substrates

Suitable for installation on firm subsurfaces that provide sufficient pressure resistance when using a roller to press on the welding bond, e.g. wooden decking, wood-based panels and wood fibre underlay panels.

The subsurface must be dry, free of frost, clean and free of any sharp-edged or pointed objects. There must be no water-repellent substances (e.g. grease or silicone) on the membranes.

Before adhesion, SOLITEX WELDANO should be wiped clean with a cloth. It is recommended that spot checks be performed to test the strength of the stuck joints.

## General conditions

SOLITEX WELDANO is to be installed horizontally (parallel to the eave). Unhindered drainage of water must be ensured. Cross joints are to be avoided. If membrane joints are necessary, they should be offset with respect to each other.

To protect the building structure during the construction phase, SOLITEX WELDANO roof lining membranes can be subjected to outdoor exposure for up to 4 months in climate zones that are comparable to Northern and Central Europe (e.g. as a temporary covering in accordance with ZVDH ('Zentralverband des Deutschen Dachdeckerhandwerks' - National Association of the German Roofing Trade).

The roof pitch must be at least 3°. National regulations should be taken into account here.

Fasteners should not be applied on flat surface areas or in areas where water run-off is collected (e.g. in roof valleys). We recommend the use of corrosion-resistant fasteners.

The membrane edges are to be welded using the WELDANO TURGA system solvent welding agent or a hot air gun. The welding area must be dry and free of frost, dust and grease. If dirt (e.g. oil) is stuck to the surface, moisten a cloth lightly with WELDANO TURGA system solvent welding agent and use it to clean off this dirt. Both sides of the membrane can be welded and are suitable as upper layers.

Welding with a solvent welding agent can be carried out at temperatures above 0 °C / 32 °F. Please observe the hazard notices on the container.

If a hot air gun is being used, we recommend a temperature of around 220 to 280 °C (430 to 530 °F) depending on the ambient temperature and wind conditions. Test this setting by carrying out a test weld on a sample piece of membrane. A 40 mm (1.6") nozzle width has been found to be suitable in practice for welded joints between surface membranes. A 20 mm (.8") nozzle may be more suitable in certain cases for more intricate joints.

The WELDANO ROFLEX pipe grommet is suitable for pipe diameters of 90 mm to 125 mm (3.5"-5") for roof pitches between 5° and 25°.

The WELDANO ROFLEX PLUS pipe grommet is suitable for roof pitches up to 50°.

As an alternative to the use of the WELDANO ROFLEX, WELDANO INVEX or WELDANO INCAV system shaped elements, these elements can also be made by cutting appropriate shapes out of SOLITEX WELDANO membranes.

Important: The enclosed counter battens on the waterproof roof lining must be dry and chamfered on their upper side ( $\geq 3$  mm; 120 mils) when they are installed. Ideally, structural timber should be used.

### Additional technical information for Germany:

Depending on the requirements demanded of the roof lining when used as an additional measure, the roof lining can be installed to be rainproof or watertight (in accordance with ZVDH). Rainproof roof lining: The counter battens are installed over the roof lining membrane. Waterproof roof lining: The counter battens are integrated into the sealing layer. The roof lining membrane is installed over the counter battens here or else SOLITEX WELDANO-S sealing strips are fitted over the counter battens and welded to the roof lining membrane on both sides.

Ridge ventilation is permitted in the case of a rainproof roof lining. The roof lining membrane should then stop 30 mm (1.2") before the apex of the ridge. Cover the ventilation opening with a membrane strip over the counter batten along the ridge axis. Ridge ventilation is not permitted in the case of a waterproof roof lining.

The SOLITEX WELDANO roof lining membrane is to be bonded in a windproof and waterproof manner at the eave flashing. The eave flashing can be installed as a drip board under the gutter or as a guide board that guides water into the gutters. To protect the roof lining membrane from direct sunlight on a permanent basis, the width of the eave flashing should be selected appropriately depending on the roof pitch and the orientation of the building structure or else it should be installed with an eave membrane to provide UV protection, e.g. SOLTEMPA.

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The information provided here is based on practical experience and the current state of knowledge. We reserve the right to make changes to the recommended designs and processing or to make alterations due to technical developments and associated improvements in the quality of our products. We would be happy to inform you of the current technical state of the art at the time you use our products.

Further information about the application and construction can be found in the pro clima planning documentation. For queries please call the pro clima technical hotline on +49 (0)6202 278245.

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