

# SOLITEX WELDANO

Diffusion-open, weldable roofing underlay membrane



## Technical data

		Substance
Membrane, both sides		Polyurethane
Substructure fleece		Polyester
Property	Regulation	Value
Colour		blue
Surface weight	EN 1849-2	310 g/m <sup>2</sup> ; 1.02 oz/ft <sup>2</sup>
Thickness	EN 1849-2	0.8 mm ; 31 mils
Water vapor resistance factor $\mu$	EN ISO 12572	225
sd value	EN ISO 12572	0.18 m
g value		0.9 MN-s/g
Vapour permeance	ASTM E 96	18.2 perms
Fire rating	EN 13501	E
Outdoor exposure		3 months
Water column	EN ISO 811	> 4 000 mm ; > 13' 1"
Watertightness, non-aged/aged*	EN 13859-1	W1 / W1
Tensile strength MD/CD	EN 13859-1 (A)	320 N/5 cm / 400 N/5 cm ; 37 lb/in / 46 lb/in
Tensile strength MD/CD, aged*	EN 13859-1 (A)	275 N/5 cm / 320 N/5 cm ; 31 lb/in / 37 lb/in
Elongation MD/CD	EN 13859-1 (A)	50 % / 70 %
Elongation MD/CD, aged*	EN 13859-1 (A)	50 % / 70 %
Nail tear resistance MD/CD	EN 13859-1 (B)	200 N / 200 N ; 45 lbf / 45 lbf
*) Durability after artificial ageing at 100 °C ; 212 °F	EN 1297 / EN 1296	passed
Flexibility at low temperature	EN 1109	-20 °C ; -4 °F
Temperature resistance		permanent -40 °C to 100 °C ; -40 °F to 212 °F
Thermal conductivity		0.04 W/(m·K) ; 0.3 BTU-in/(h·ft <sup>2</sup> ·F)
Roofing underlay membrane	ZVDH-Produktdatenblatt	UDB-A
Temporary roof covering; suitable as ...	ZVDH	yes
CE labelling	EN 13859-1	yes

## Application

As a 3-ply diffusion-open, homogeneously weldable, rainproof/watertight roofing underlay. Suitable for installation on pressure-resistant subsurfaces, e.g. wooden decking, wood-based panels and wood fibre underlay panels.

## Advantages

- ✓ Homogeneously weldable
- ✓ Non-slip and abrasion-resistant surface
- ✓ Diffusion-open and, at the same time, rainproof against driving rain
- ✓ Extremely high tear-resistance
- ✓ As a roofing underlay with the most stringent safety requirements
- ✓ Monolithic membrane

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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## Substrates

Suitable for installation on firm subsurfaces that provide sufficient pressure resistance when using a roller to press down 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 welding is carried out, SOLITEX WELDANO should be wiped clean with a cloth. It is recommended that spot checks be performed to test the strength of the welded 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 roofing underlay membranes can be subjected to outdoor exposure for up to 3 months (or up to 4 months in climate zones that are comparable to Northern and Central Europe), e.g. as a temporary covering in accordance with the German ZVDH regulations ('Zentralverband des Deutschen Dachdeckerhandwerks' - National Association of the German Roofing Trade). The roof pitch must be at least 3° (0.6:12). 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 (3/4") nozzle may be more suitable in certain cases for more intricate joints.

Note: If membranes that have been subjected to 2 months of outdoor exposure are to be welded, the exposed membrane surface must be gently roughened using sandpaper (150 - 250 grade) to remove a film depth of around 2-3 µm (0.08-0.12 mil) so that a reactive surface is accessible again. This applies both for hot-air welding and for solvent welding using WELDANO TURGA.

The WELDANO ROFLEX pipe grommet is suitable for pipe diameters of 90 mm to 125 mm (3.5"-5") for roof pitches between 3° 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 roofing underlay must be dry and chamfered on their upper side (≥ 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 roofing underlay when used as an additional measure, the roofing underlay can be installed to be rainproof or watertight (in accordance with ZVDH). Rainproof roofing underlay: The counter battens are installed over the roofing underlay membrane. Waterproof roofing underlay: The counter battens are integrated into the sealing layer. The roofing underlay 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 roofing underlay membrane on both sides.

Ridge ventilation is permitted in the case of a rainproof roofing underlay. The roofing underlay 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 roofing underlay.

The SOLITEX WELDANO roofing underlay 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 roofing underlay 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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