

SANDWICH PANELS

- with PUR core
- with PIR core

TECHNICAL CATALOG PANELTECH PW PUR

PaNELTECH[®]
MODERN BUILDING



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Disclaimer

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INTRODUCTION

PaNELTECH Ltd is a company specialized in building services and production of building materials. We have been present on the market of investment and industrial goods since 1989. High quality of our products is a result of modern production technology and application of materials and components supplied by renowned domestic and foreign companies. Thanks to our knowledge, experience and engagement we are able to offer high quality building services and satisfy the changeable needs of our Customers.

We are building our competitive advantage mainly by introducing modern and innovative products and technologies. As a result of this strategy in the past few years we made several important investments, such as purchase and installation of modern machinery park for production of industrial and coldroom doors, new expanded polystyrene (EPS) production line and new EPS and mineral wool sandwich panel production line. However we are most proud of our latest investment in one of the Europe's most modern and innovative polyurethane panels production line. Thanks to this investment we have introduced 3 new products:

- Sandwich panels with PUR core, type PW PUR,
- Sandwich panels with PIR core, type PW PIR,
- Insulation panels in soft facings, type PW PIR SOFT.

We have to underline the fact that the line is equipped in several innovative solutions mainly in the area of quality control. Thanks to them our panels distinguish themselves on the market with their technical parameters, durability and precision.

SANDWICH PANELS APPLICATION

Sandwich panels can be applied as:

- roofs and roof coverings
- external walls and wall claddings
- walls and ceilings within the external structure of the building.

Sandwich panels PaNELTECH PW PUR and PW PIR are a group of modern composite products, used widely in building industry. Sandwich panels comprises of two steel sheet facings, resistant to corrosion, and an insulation core made of polyurethane foam.

The main advantages of sandwich panels are:

- high mechanical endurance
- high heat insulation,
- high vapour and air tightness of the joints,
- easy and fast installation,
- lower investment cost in comparison with traditional ways of building

In particular sandwich panels can be applied in:

- Industrial buildings, including production facilities and storehouses,
- Commercial buildings and offices,
- Food industry facilities, including coldrooms and freezer rooms,
- Agricultural objects
- Sport halls.

SANDWICH PANELS CHARACTERISTICS

Panel facings are made of galvanized steel sheet coated with polyester paint, thickness from 0,4 to 0,6 [mm] made in accordance with the norm PN-EN 10346:2009. The steel we use to produce our panels are delivered by biggest world steel concerns, such as Arcelor Mittal, Voest Alpine or Thyssen Krupp.

The core of the panel can be made of polyurethane foam (PUR) or (PIR) with density of about 40 ± 3 [kg/m³], made in accordance with the norm PN-EN 13165 (including dimensions stability and heat insulation). A declared heat conductivity value of foam is PUR $\lambda_D = 0,023$ [W/mxK], PIR $\lambda_D = 0,023$ [W/mxK].

Technical documentation of the panels was developed in accordance with the norm 14509:2010. Initial type tests were conducted in domestic laboratories, fire tests we made in certified units, such as Building Research Institute, Fire Research Department, notification no. 1488 and Research facility Fires Batizovce, Slovakia, notification no. 1396. On the basis of tests results the producer issued a declaration of conformity with European Norm and marked the product with CE sign (conformity evaluation system 3).

PaNELTECH sandwich panels were also granted a hygienic certificate of National Institute of Hygiene.

THE SCOPE THE OFFER

Within the range of polyurethane panels we offer following products:

- Wall panels with visible joint, type PW PUR-S and PW PIR-S, available thickness: 40, 60, 80, 100, 120 [mm];
- Wall panels with hidden joint, type PW PUR-SU and PW PIR-SU, available thickness 60, 80, 100, 120 [mm];
- Coldroom panels, type W PUR-CH and PW PIR-CH, available thickness: 120, 160, 180, 200 [mm];
- Rood panels, type PW PUR-D and PW PIR-D, available thickness: 40/82, 60/102, 80/122, 90/132, 100/142, 120/162, 160/202 [mm].

PACKAGING AND TRANSPORT

For transportation the panels are packed in packages, that are secured with protective stretch foil. The quantity of panels depending on panel thickness are shown in tables below.

Table no.1. Packaging of wall sandwich panels PaNELTECH, type PW PUR-S, PW PUR-SU, PW PIR-S and PW PIR-SU.

Panel thickness, [mm]	40	60	80	100	120
Maximal number of panels in the package [pcs.]*	16	18	14	11	9

* in accordance with customer's clear instruction more panels can be loaded in the package, but it may cause some deformations on the bottom facings of the lower panels in the package.

Table no.2. Packaging of coldroom sandwich panels PaNELTECH, type PW PUR-CH and PW PIR-CH.

Panel thickness, [mm]	120	160	180	200
Maximal number of panels in the package [pcs.]*	9	7	6	5

* in accordance with customer's clear instruction more panels can be loaded in the package, but it may cause some deformations on the bottom facings of the lower panels in the package.

Table no.3. Packaging of roof sandwich panels PaNELTECH, type PW PUR-D and PW PIR-D.

Panel thickness, [mm]	40/82	60/102	80/122	90/132	100/142	120/162	160/202
Maximal number of panels in the package [pcs.]*	18	14	10/12	10	8/10	8	6

* in accordance with customer's clear instruction more panels can be loaded in the package, but it may cause some deformations on the bottom facings of the lower panels in the package.

The packages are loaded on trucks with special forklifts with maximal forks spread of 4 meters. The forks must be secured with special felts in order to avoid scratching of panel surface.

On the building site the panels have to be unloaded with above mentioned forklifts or other suitable lifting devices. In case the panel are shorter than 6m the unloading can be handled with a single forklift. If the panels are longer two forklifts should be used. In case the crane is used proper supports and catches should be applied in order to avoid damages to the panels.

The shipment should be done by trucks adopted to panel transportation. The following conditions must be kept

- the width of the loading case shouldn't be at least 2450 [mm],
- free access to the sides of the loading box must be ensured,
- the panels must be secured with belts and spacers to avoid shifting of the packages,
- the belts must be tightened carefully,
- there can be maximum 2 packages in a pile.

INSTALLATION RECOMMENDATIONS

Installation works should be carried out by trained and experienced employers. The panels should be cut only with special fine-grained sawing machines or steel sheet shears. Any grinders or other devices that could damage the product must be avoided. After the installation the surface of the panel should be cleaned of PU foam and steel file dust.

It is also recommended to remove the protective foil from the surface of the panels up to 14 days after delivery to the building site.

TECHNICAL SUPPORT AND OFFER COMPLEXITY

Thanks to our experienced and qualified technical advisors and sale managers we ensure proper assistance and support on every stage of building process.

We also offer high quality services including installation of steel structures and sandwich panels, as well as general execution of industrial and agricultural building facilities (“turn key” investments).

Except for sandwich panels in PUR, PIR, EPS and mineral wool core we offer:

- flashing systems,
- joining and assembly elements,
- PVC and aluminium joinery,
- industrial and coldroom doors,
- gutter systems,
- EPS boards and shapes,
- steel structures,
- Hormann gates and loading systems.

More detailed information can be found on our web-site www.paneltech.pl

DISCLAIMER

All solutions shown in this catalog are just examples and must be discussed with a designer or architect. Paneltech does not bare any responsibility for mistakes arising from wrong interpretation or misuse of the information presented in the catalog.

Additional information, including:

- General Warranty Conditions,
- General Sale Conditions,
- Conditions of panel maintenance and proper preservation of its surface,
- Conditions of panel transportation, loading, unloading and storage,
- Installation instructions,

Can be found on the company's web-site www.paneltech.pl.

WALL SANDWICH PANELS WITH VISIBLE JOINT, TYPE PW PUR-S AND PW PIR-S

PANEL APPLICATION

PW PUR-S and PW PIR-S panels are applied as ceilings external walls and internal division walls, installed vertically or horizontally on single- or multi-span structure.

In particular the panels can be applied in industrial buildings, store houses and logistic centres, commercial buildings and offices, food industry facilities, agricultural objects, sport halls.

Dimensions of panel are following:

- standard width: 1130mm (option: 1000 and 1050 [mm])
- available length: from 2 to 15,35 [m]
- available thickness: 40, 60, 80, 100, 120 [mm]

PANEL CHARACTERISTICS

Tables 4, 5 and 6 present chosen PW PUR-S / PW PIR-S panel characteristics.

Table 4. Thickness and weight of PW PUR-S / PW PIR-S panels.

Panel thickness	Panel weight	Foam density	Sealing on the joint
40	9,9	40 ± 3	PU gasket
60	10,7	40 ± 3	PU gasket
80	11,5	40 ± 3	PU gasket
100	12,3	40 ± 3	PU gasket
120	13,1	40 ± 3	PU gasket

The test of thermal conductivity (symbol) for PU foam was made in accordance with the norm PN-EN 12667. The calculation of thermal transmittance U was done in accordance with PN-EN ISO 6946.

Acoustic properties of the panels were tested in accordance with PN-EN ISO 20140 and PN-EN ISO 354 and classified according to PN-EN ISO 717-1 and PN-EN ISO 11654.

Table 5. Insulation and acoustic properties of PW PUR- S / PW PIR-S panels.

Panel thickness	Thermal transmittance U_c value [W/m ² ·K] PW PUR/PW PIR	Acoustic insulation R_w (C, C_{tr}), [dB]	Noise absorption coefficient α_w [-]
40	0,59	26 (-3, -4)	0,15
60	0,38	26 (-3, -4)	0,15
80	0,28	26 (-3, -4)	0,15
100	0,22	26 (-3, -4)	0,15
120	0,19	26 (-3, -4)	0,15

Fire tests of the panels were made according to PN-EN 11925-2, PN-EN 13823, PN-B-2867, PN-EN 1364-1. Fire classification was made in accordance with PN-B-02867, PN-EN 13501-1, PN-EN 13501-2.

Table 6. Fire classifications for PW PUR-S / PW-PIR-S panel.

Panel thickness	Fire resistance in accordance with PN-B-02867	Reaction to fire in accordance with PN-EN 13501-1 for PW PUR-S / PW PIR-S	Fire resistance in accordance with PN-EN 13501-2 for PW PUR-S / PW-PIR-S
40	NRO	B-s2,d0 / B-s1,d0	-
60	NRO	B-s2,d0 / B-s1,d0	-
80	NRO	B-s2,d0 / B-s1,d0	EI 20 / -
100	NRO	B-s2,d0 / B-s1,d0	EI 20 / EI 30
120	NRO	B-s2,d0 / B-s1,d0	EI 20 / EI 30

Tests for corrosion resistance of the sheets of the facings were conducted in accordance with proper test procedures in the Laboratory of Material Research and Protective Coatings of the Building Research Institute in Warsaw.

The assessment of corrosion resistance was done by the Building Research Institute on the grounds of PN-EN ISO 12944-2. The results confirmed that PaNELTECH panels can be safely applied in environments of corrosive atmosphere C1, C2, C3.

WALL SANDWICH PANELS WITH HIDDEN JOINT, TYPE PW PUR-SU AND PW PIR-SU

PANEL APPLICATION

PW PUR-SU and PW PIR-SU panels are applied as ceilings external walls and internal division walls, installed vertically or horizontally on single- or multi-span structure. Thanks to a special solution of the joint the fixing on the panel is hidden, which ensures very aesthetic appearance of the elevation.

In particular the panels can be applied in industrial buildings, store houses and logistic centres, commercial buildings and offices, food industry facilities, agricultural objects, sport halls.

Dimensions of panel are following:

- standard width: 1050 mm (option: 1000 [mm])
- available length: from 2 to 15,35 [m]
- available thickness: 60, 80, 100, 120 [mm]

PANEL CHARACTERISTICS

Tables 7, 8 and 9 present chosen PW PUR-SU / PW PIR-SU panel characteristics.

Table 7. Thickness and weight of PW PUR-SU / PW PIR-SU panels.

Panel thickness	Panel weight	Foam density	Sealing on the joint
60	11,1	40 ± 3	PU gasket
80	11,8	40 ± 3	PU gasket
100	12,6	40 ± 3	PU gasket
120	13,4	40 ± 3	PU gasket

The test of thermal conductivity (symbol) for PU foam was made in accordance with the norm PN-EN 12667. The calculation of thermal transmittance U was done in accordance with PN-EN ISO 6946.

Acoustic properties of the panels were tested in accordance with PN-EN ISO 20140 and PN-EN ISO 354 and classified according to PN-EN ISO 717-1 and PN-EN ISO 11654.

Table 8. Insulation and acoustic properties of PW PUR-SU / PW PIR-SU panels.

Panel thickness	Thermal transmittance U_c value [W/m ² ·K] PW PUR/PW PIR	Acoustic insulation R_w (C, C _{tr}), [dB]	Noise absorption coefficient α_w [-]
60	0,39	26 (-3, -4)	0,15
80	0,29	26 (-3, -4)	0,15
100	0,23	26 (-3, -4)	0,15
120	0,19	26 (-3, -4)	0,15

Fire tests of the panels were made according to PN-EN 11925-2, PN-EN 13823, PN-B-2867, PN-EN 1364-1. Fire classification was made in accordance with PN-B-02867, PN-EN 13501-1, PN-EN 13501-2.

Table 9. Fire classifications for PW PUR-SU / PW PIR-SU panel.

Panel thickness	Fire resistance in accordance with PN-B-02867	Reaction to fire in accordance with PN-EN 13501-1 for PW PUR-SU / PW PIR-SU	Fire resistance in accordance with PN-EN 13501-2 for PW PUR-SU / PW PIR-SU
60	NRO	B-s2, d0	-
80	NRO	B-s2, d0	EI 15 / -
100	NRO	B-s2, d0	EI 15
120	NRO	B-s2, d0	EI 15

Tests for corrosion resistance of the sheets of the facings were conducted in accordance with proper test procedures in the Laboratory of Material Research and Protective Coatings of the Building Research Institute in Warsaw.

The assessment of corrosion resistance was done by the Building Research Institute on the grounds of PN-EN ISO 12944-2. The results confirmed that PaNELTECH panels can be safely applied in environments of corrosive atmosphere C1, C2, C3.

ROOF SANDWICH PANELS, TYPE PW PUR-D AND PW-PIR-D

PANEL APPLICATION

PW PUR-D panels are applied as roofs and roof covers on single- or multi-span structure. In particular the panels can be applied in industrial buildings, store houses and logistic centres, commercial buildings and offices, food industry facilities, agricultural objects, sport halls.

Dimensions of panel are following:

- standard width: 1050mm
- available length: from 2 to 15,35 [m]
- available thickness: 40, 60, 80, 90, 100, 120, 160 [mm]

PANEL CHARACTERISTICS

Tables 10, 11 and 12 present chosen PW PUR-D / PW PIR-D panel characteristics.

Table 10. Thickness and weight of PW PUR-D / PW PIR-D panels.

Panel thickness	Panel weight	Foam density	Sealing on the joint
40/82	10,2	40 ± 3	PU gasket
60/102	11,0	40 ± 3	PU gasket
80/122	11,8	40 ± 3	PU gasket
90/132	12,2	40 ± 3	PU gasket
100/142	12,6	40 ± 3	PU gasket
120/162	13,4	40 ± 3	PU gasket
160/202	15,0	40 ± 3	PU gasket

The test of thermal conductivity (symbol) for PU foam was made in accordance with the norm PN-EN 12667. The calculation of thermal transmittance U was done in accordance with PN-EN ISO 6946.

Acoustic properties of the panels were tested in accordance with PN-EN ISO 20140 and PN-EN ISO 354 and classified according to PN-EN ISO 717-1 and PN-EN ISO 11654.

Table 11. Insulation and acoustic properties of PW PUR-D / PW PIR-D panels.

Panel thickness	Thermal transmittance U_c value [W/m ² ·K] PW PUR/PW PIR	Acoustic insulation R_w (C, C_{tr}), [dB]	Noise absorption coefficient α_w [-]
40/82	0,50	26 (-2, -5)	0,2
60/102	0,35	26 (-2, -5)	0,2
80/122	0,27	26 (-2, -5)	0,2
90/132	0,24	26 (-2, -5)	0,2
100/142	0,22	26 (-2, -5)	0,2
120/162	0,18	26 (-2, -5)	0,2
160/202	0,14	26 (-2, -5)	0,2

Fire tests of the panels were made according to PN-EN 11925-2, PN-EN 13823, PN-ENV 1187, PN-EN 1365-2. Fire classification was made in accordance with PN-EN 13501-5, PN-EN 13501-1, PN-EN 13501-2.

Table 12. Fire classifications for PW PUR-D / PW PIR-D panels.

Panel thickness	Classification of external fire exposure to roofs PN-EN 13501-5	Reaction to fire in accordance with PN-EN 13501-1 for PW PUR-D / PW PIR-D	Fire resistance in accordance with PN-EN 13501-2 for PW PUR-D / PW PIR-D
40/82	B _{roof} (t1)	-	-
60/102	B _{roof} (t1)	-	-
80/122	B _{roof} (t1)	-	-
90/132	B _{roof} (t1)	- / B-s2, d0	RE 30/REI 30
100/142	B _{roof} (t1)	- / B-s2, d0	RE 30/REI 30
120/162	B _{roof} (t1)	- / B-s2, d0	RE 30/REI 30
160/202	B _{roof} (t1)	- / B-s2, d0	RE 30/REI 30

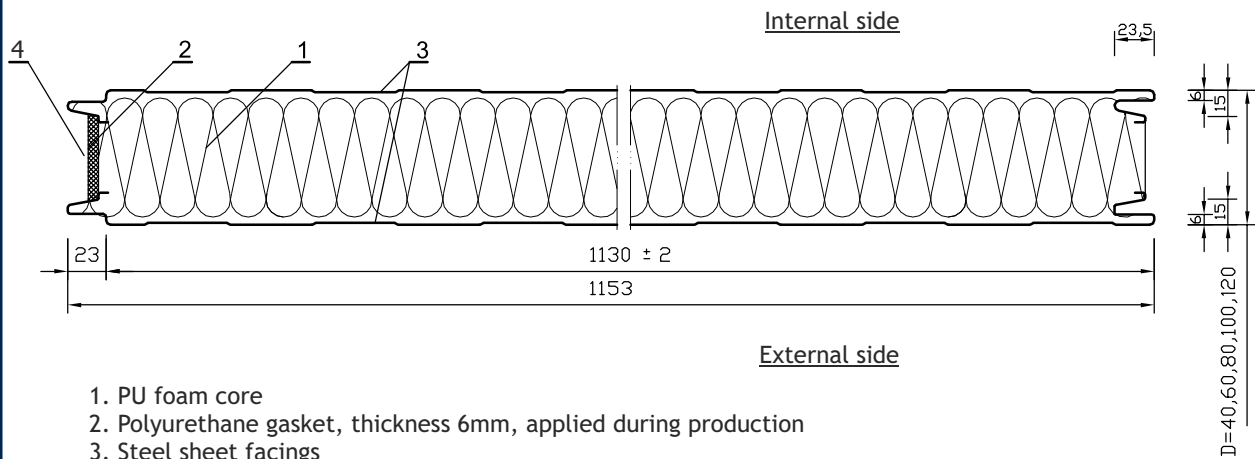
Tests for corrosion resistance of the sheets of the facings were conducted in accordance with proper test procedures in the Laboratory of Material Research and Protective Coatings of the Building Research Institute in Warsaw.

The assessment of corrosion resistance was done by the Building Research Institute on the grounds of PN-EN ISO 12944-2. The results confirmed that PaNELTECH panels can be safely applied in environments of corrosive atmosphere C1, C2, C3.

Wall sandwich panel PaNELTECH PW PUR-S 1130 (visible joint)

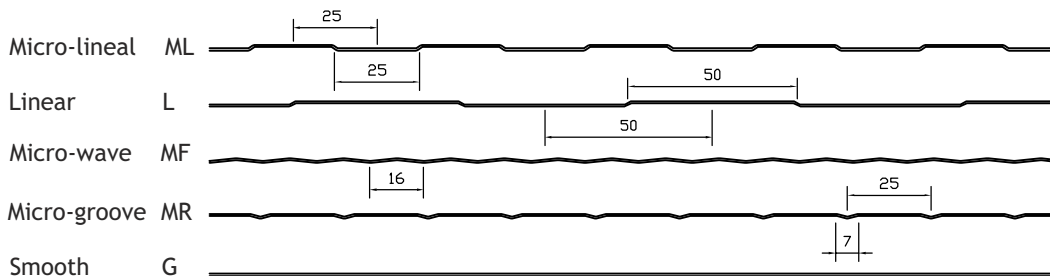
Draw. S01

Production scope

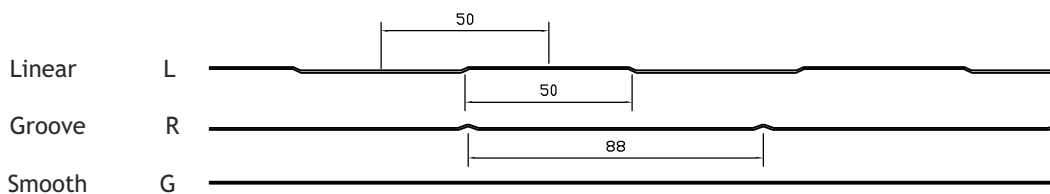


1. PU foam core
2. Polyurethane gasket, thickness 6mm, applied during production
3. Steel sheet facings
4. Direction of the arrow on the foil shows external side of panel

Available external facing profiles



Available internal facing profiles

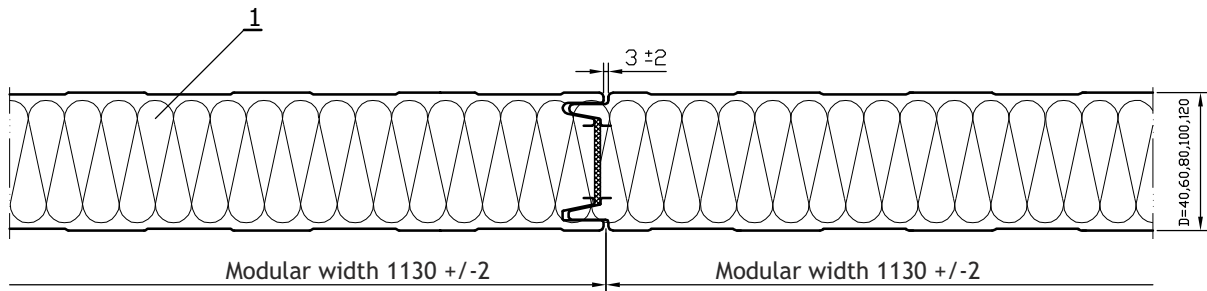


* Drawings refer also to PW PIR-S panels.

Wall sandwich panel PaNELTECH PW PUR-S 1130 (visible joint)

Draw. S03

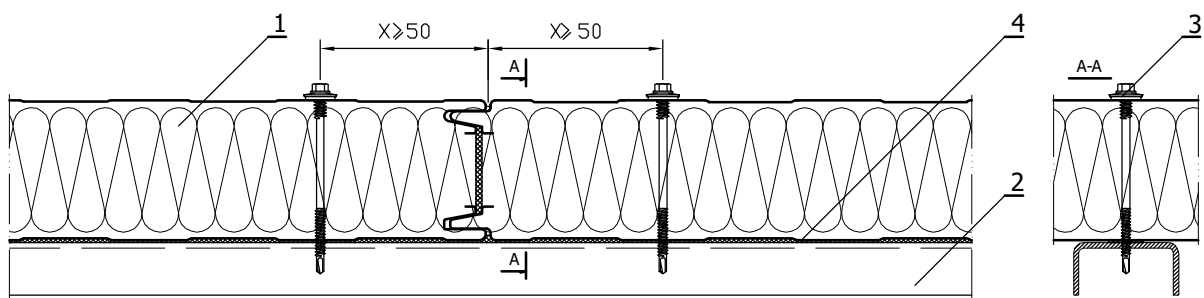
The joint between PaNELTECH PW PUR-S 1130 panels, thickness 40, 60, 80, 100, 120 mm.



1. Wall panel PaNELTECH PW PUR-S 1130

Draw. S04

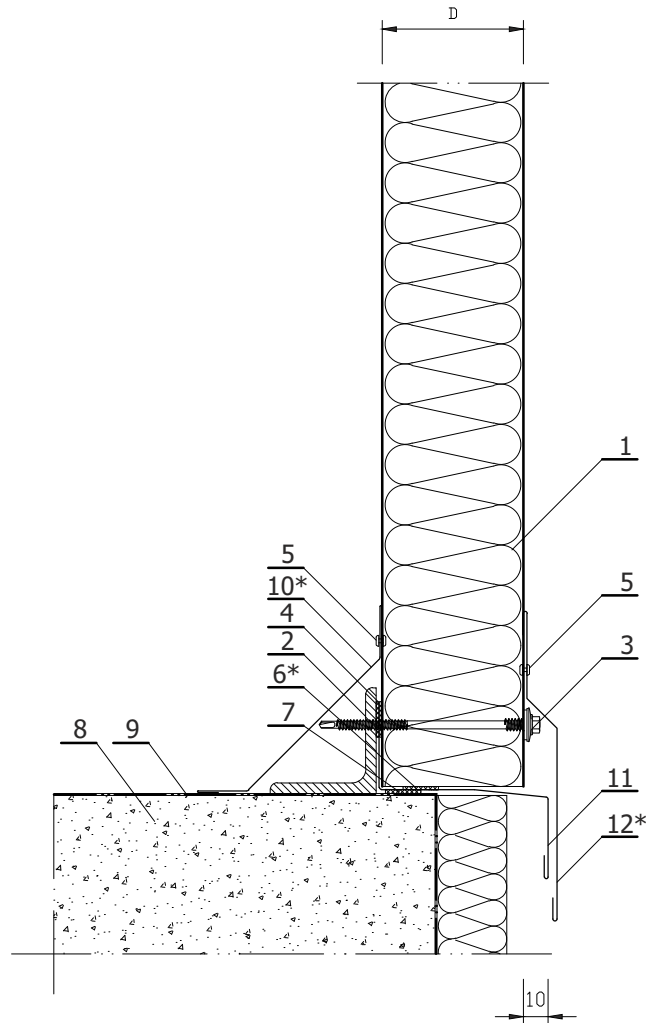
Fixing of wall panels PaNELTECH PW PUR-S 1130, thickness 40, 60, 80, 100, 120 mm.



1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure
3. Self-drilling screw
4. Polyethylene tape

Joint between wall panel and ground beam – option I

Panels installed vertically



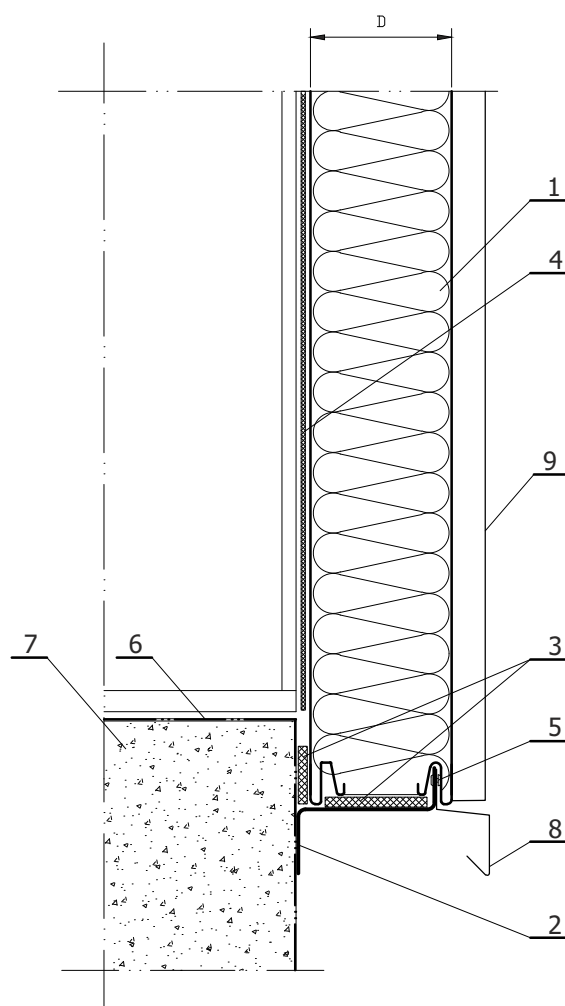
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sealing mass for water insulation
7. Polyurethane gasket or foam insulation
8. Ground sill wall
9. Moisture insulation
10. Flashing no. 010*
11. Flashing no. 001
12. Flashing no. 005*

*optional solution

Joint between wall panel and ground beam – option III

Panels installed horizontally

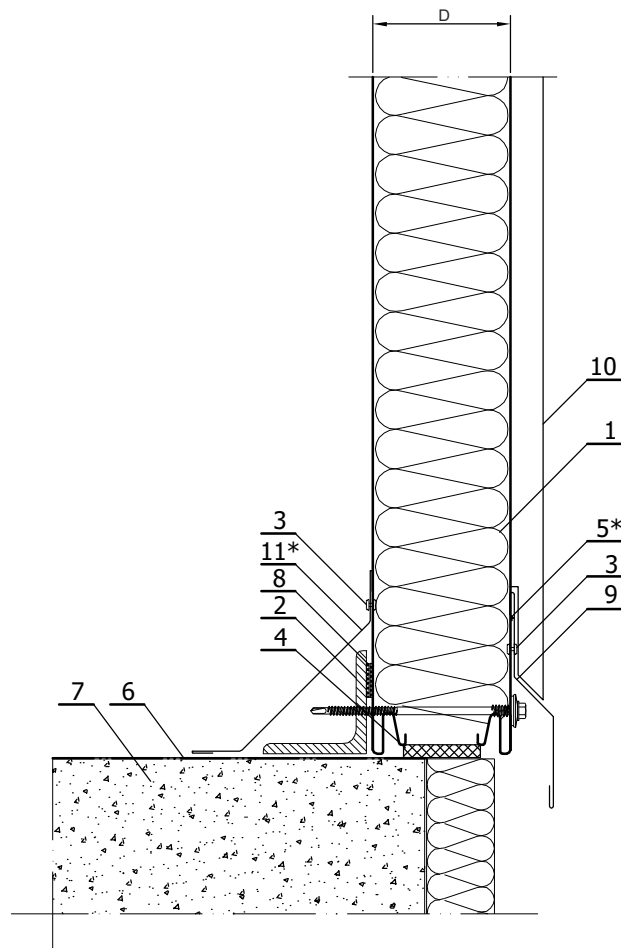


D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Polyurethane gasket or foam insulation
4. Polyethylene tape
5. River 4x9 mm
6. Moisture insulation
7. Ground sill wall
8. Flashing no. 003
9. Flashing no. 027, 028 or 029

Joint between wall panel and ground beam – option VII

Panels installed horizontally



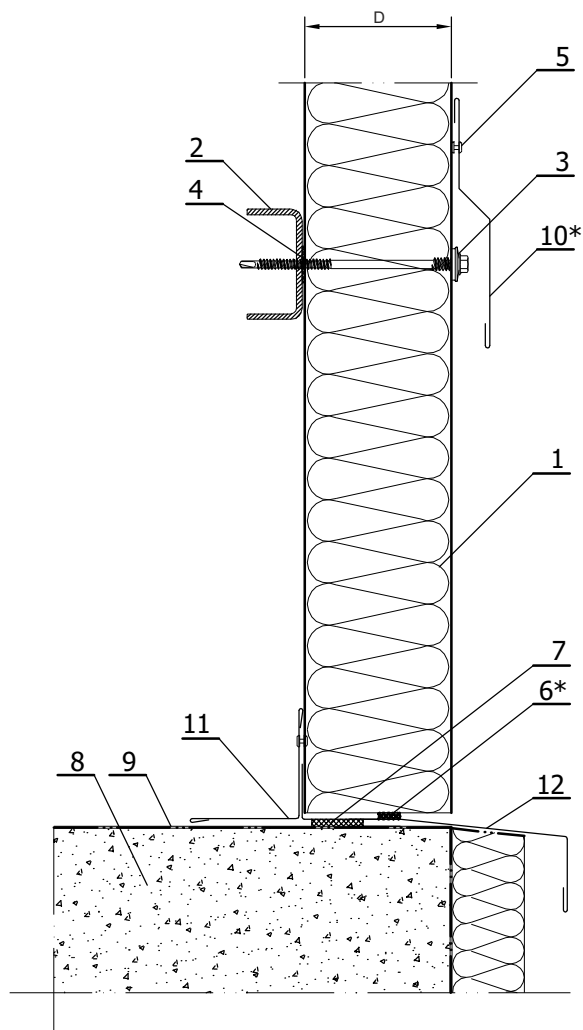
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Rivet 4x12 mm or self-drilling screw
4. Polyurethane gasket or foam insulation
5. Sealing mass for water insulation
6. Moisture insulation
7. Ground sill wall
8. Polyethylene tape
9. Flashing no. 005
10. Flashing no. 027, 028 or 029
11. Flashing no. 010*

*optional solution

Joint between wall panel and ground beam – option IV

Panels installed vertically



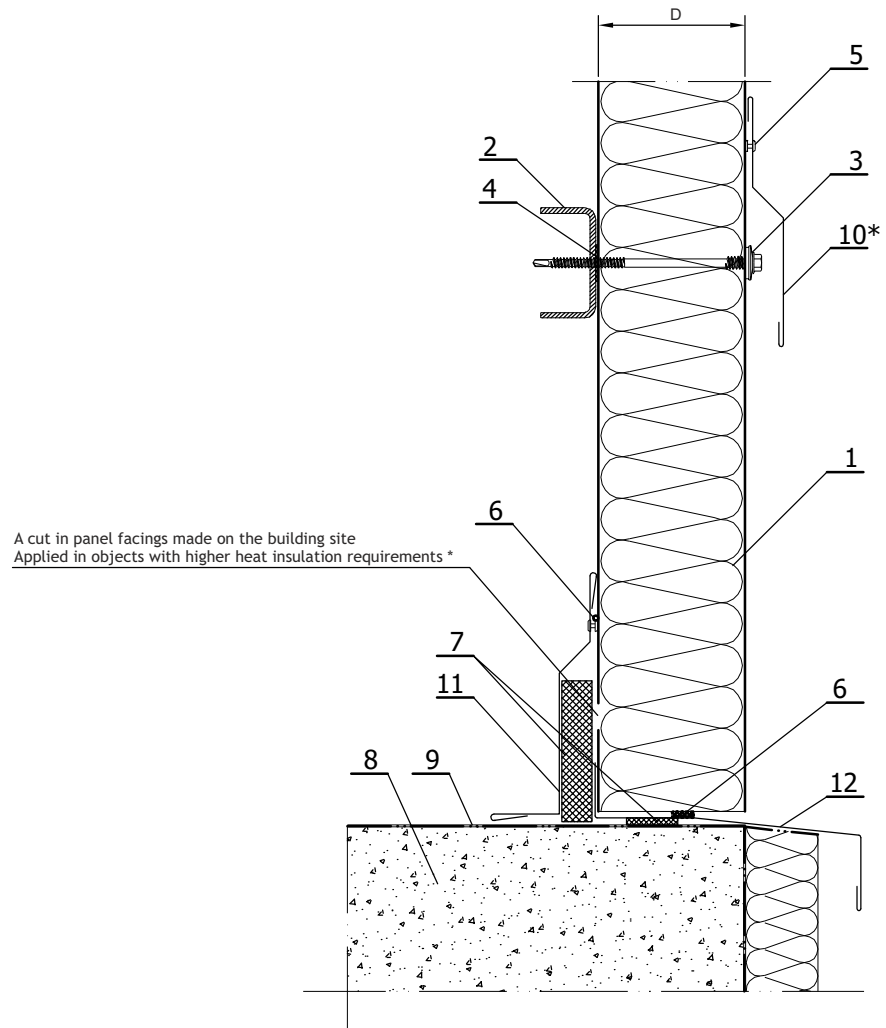
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sealing mass for water insulation
7. Polyurethane gasket or foam insulation
8. Ground sill wall
9. Moisture insulation
10. Flashing no. 005*
11. Flashing no. 020
12. Flashing no. 002

*optional solution

Joint between wall panel and ground beam – option V

Panels installed vertically



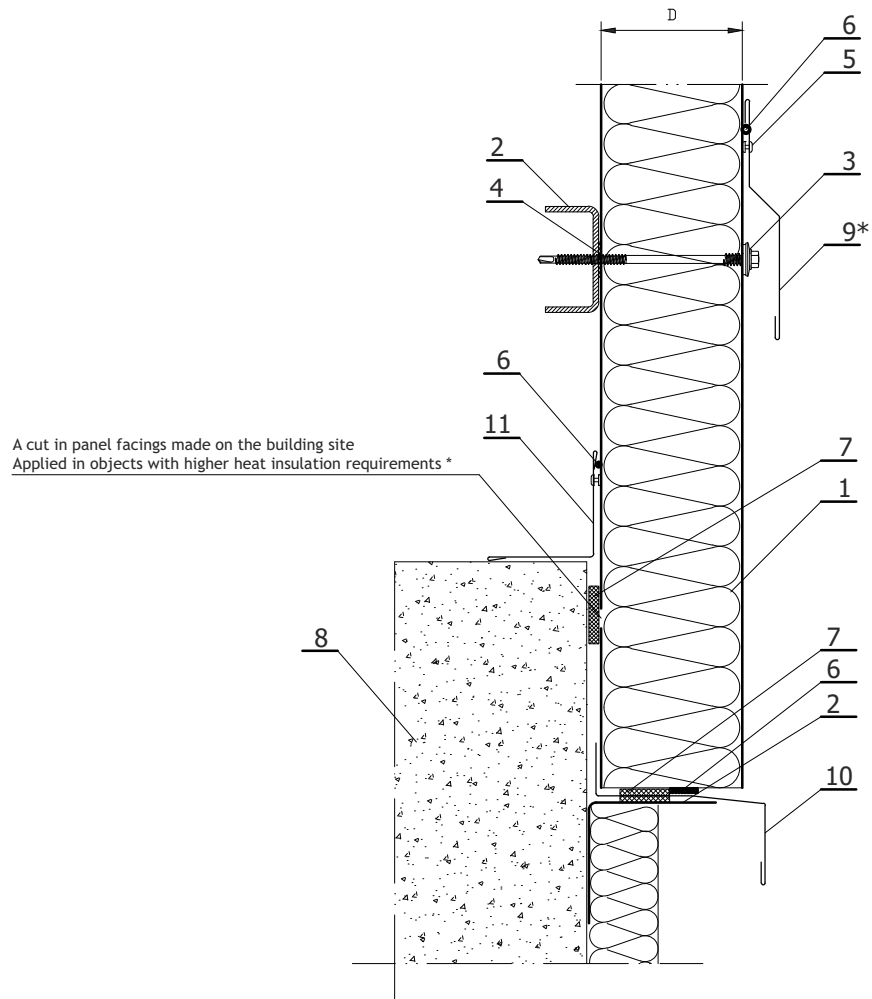
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sealing mass for water insulation
7. Polyurethane gasket or foam insulation
8. Ground sill wall
9. Moisture insulation
10. Flashing no. 005*
11. Flashing no. 012
12. Flashing no. 002

*optional solution

Joint between wall panel and ground beam – option VI

Panels installed vertically



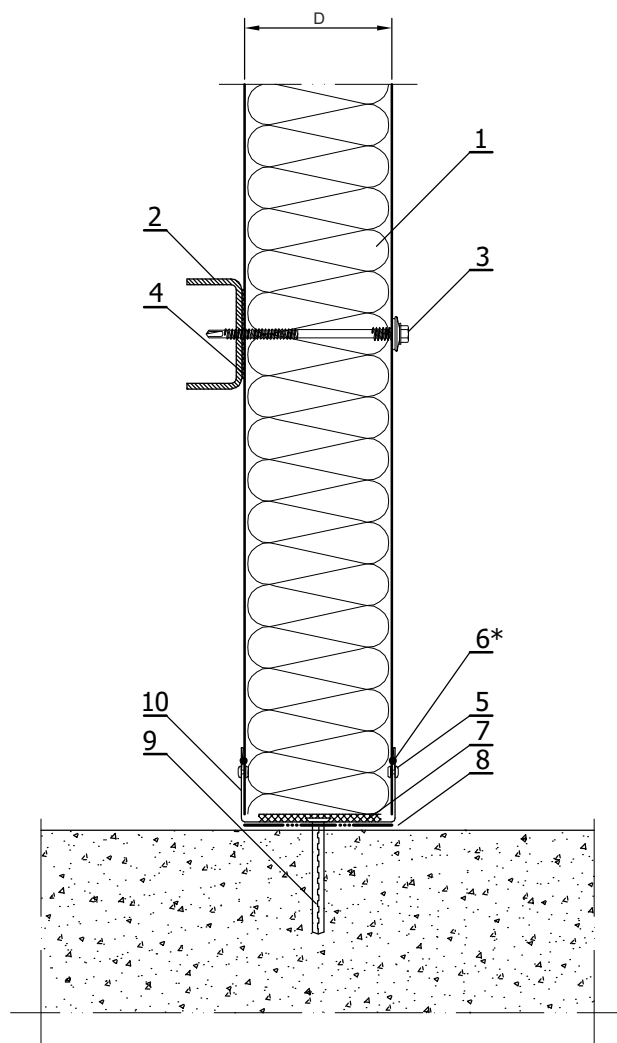
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project or starting list 075
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sealing mass for water insulation
7. Polyurethane gasket or foam insulation
8. Ground sill wall
9. Flashing no. 005*
10. Flashing no. 001
11. Flashing no. 020

*optional solution

Joint between internal wall and floor

Panels installed vertically or horizontally



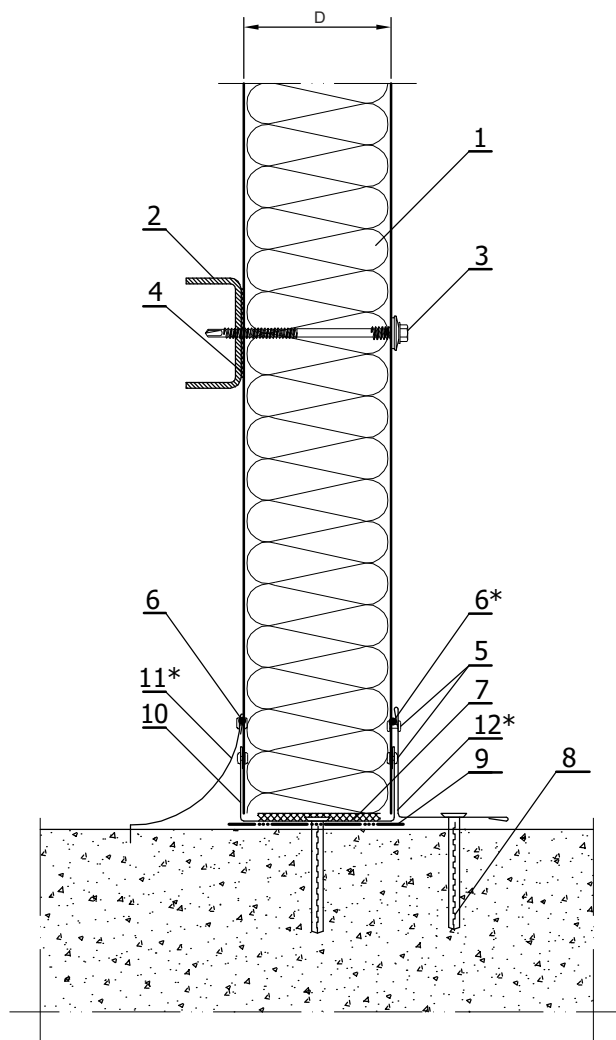
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sealing mass for water insulation*
7. Polyurethane gasket or foam insulation
8. Moisture insulation
9. Pin
10. Flashing no. 025

*optional solution

Joint between internal wall and floor

Panels installed vertically or horizontally



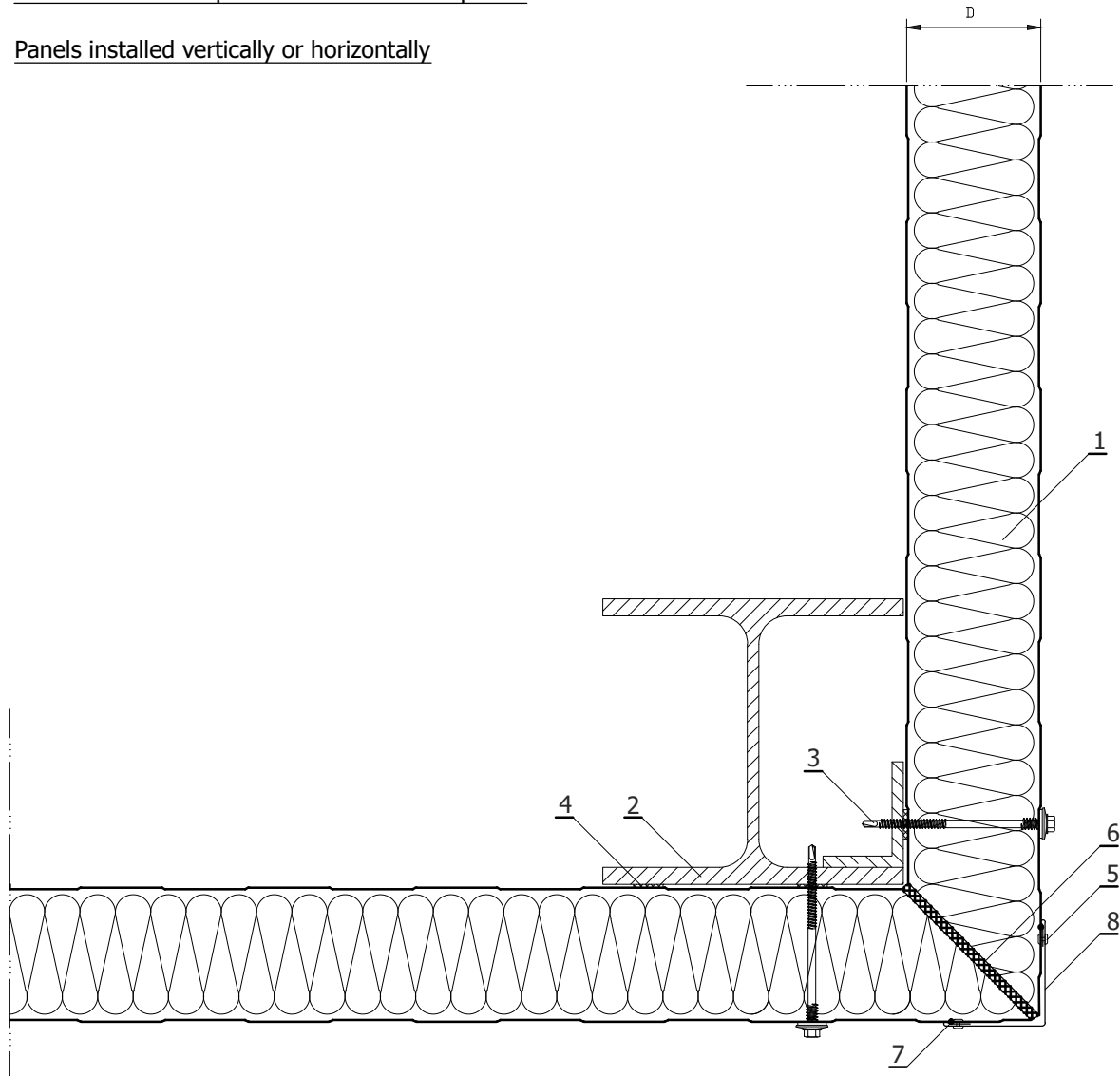
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sealing mass for water insulation*
7. Polyurethane gasket or foam insulation
8. Pin
9. Moisture insulation
10. Flashing no. 025
11. Flashing no. 024*
12. Flashing no. 020*

*optional solution

Joint between wall panels in the corner - option I

Panels installed vertically or horizontally



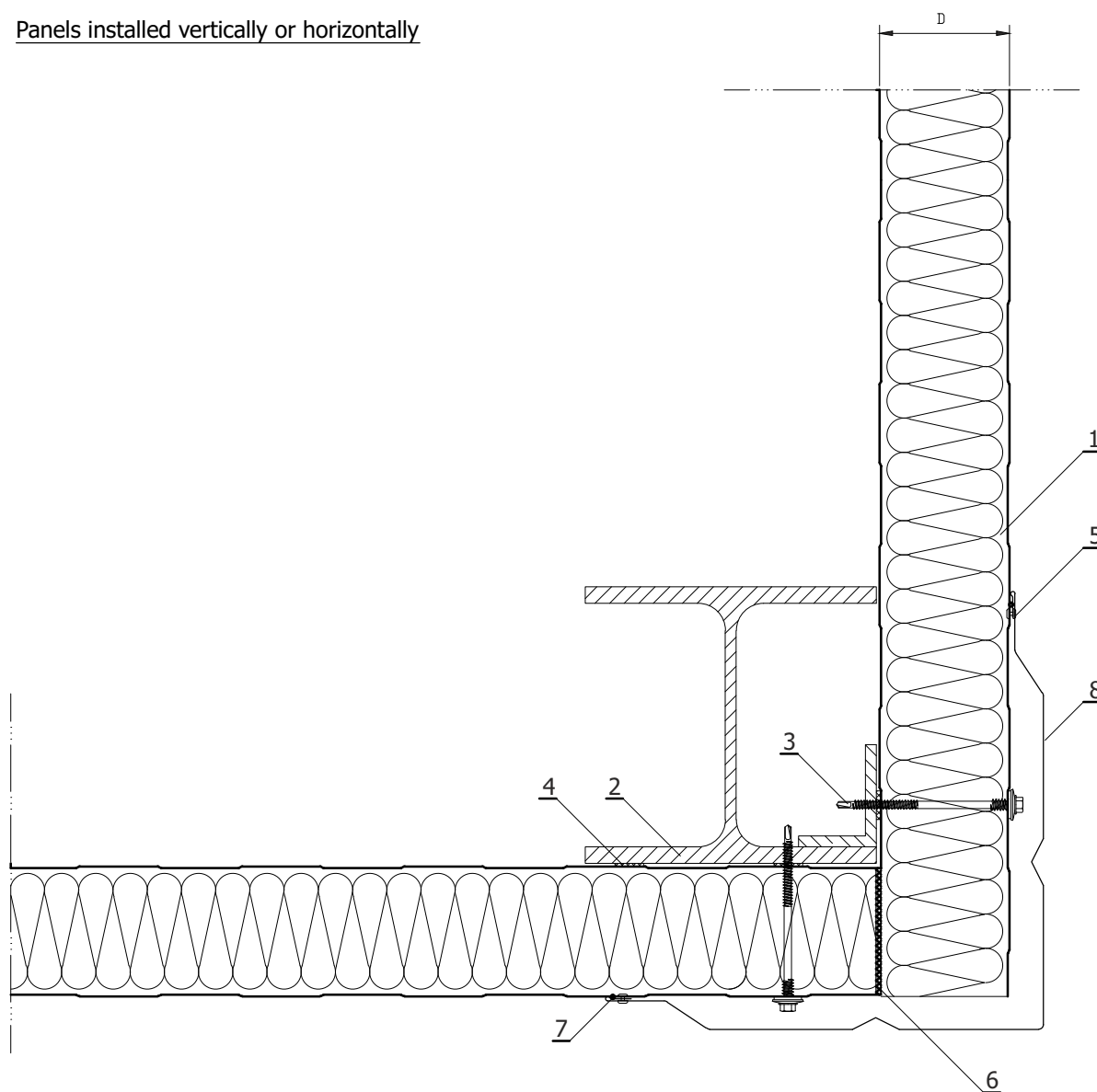
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Polyurethane gasket or foam insulation
7. Sealing mass for water insulation*
8. Flashing no. 015

Attention: flashing 015 can be substituted with flashings 017, 018 or 019

Joint between wall panels in the corner - option II

Panels installed vertically or horizontally



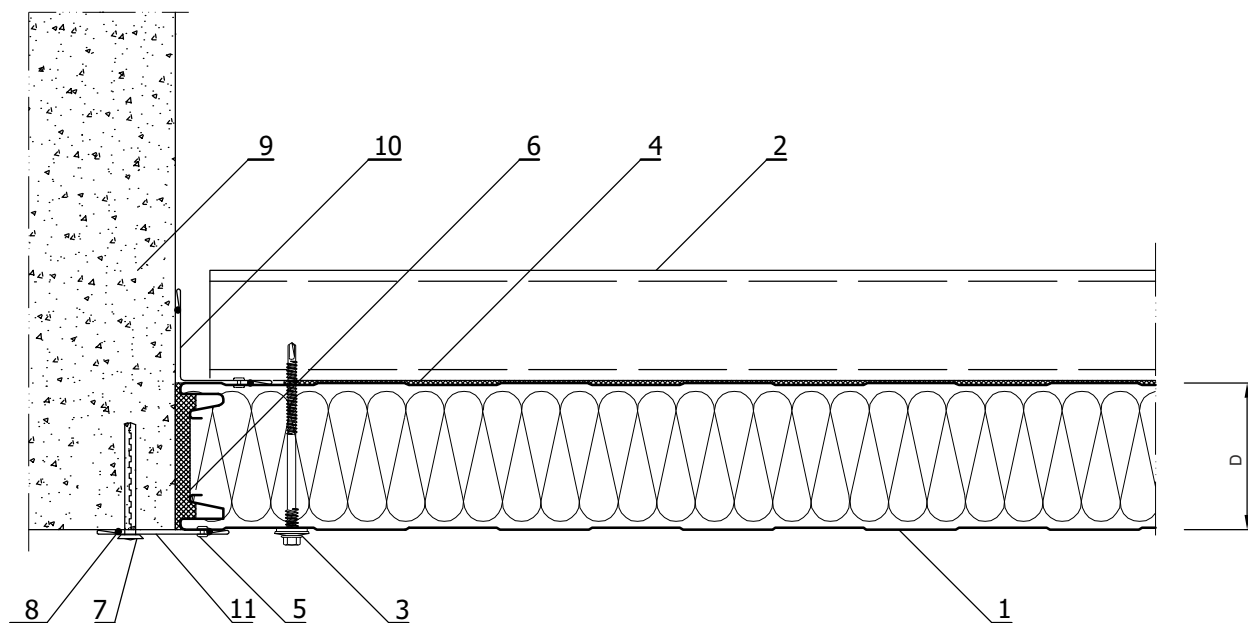
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Polyurethane gasket or foam insulation
7. Sealing mass for water insulation
8. Flashing no. 017

Attention: flashing 017 can be substituted with flashings 015, 018 or 019

Joint between panels and wall

Panels installed vertically or horizontally

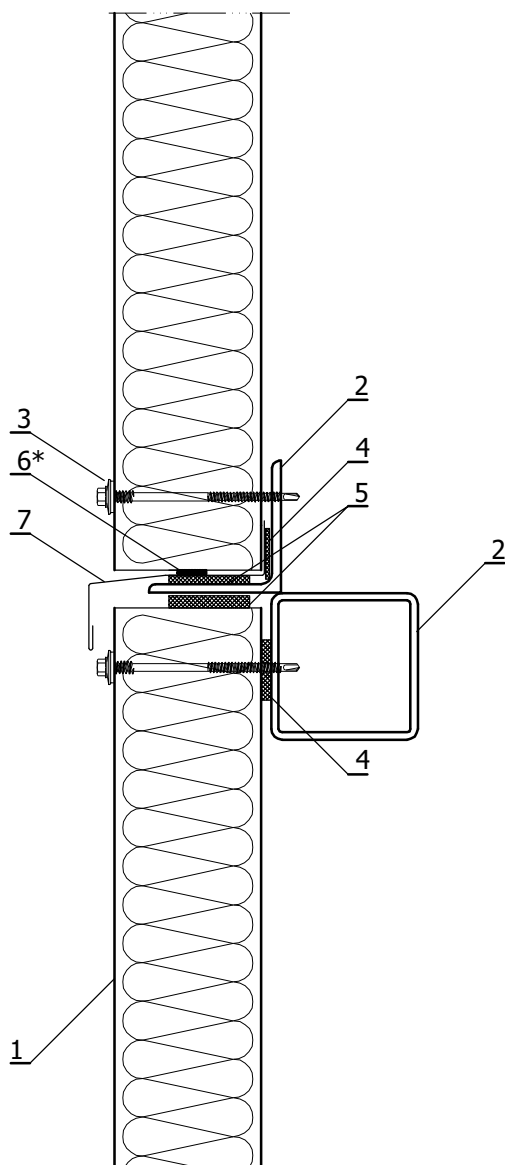


D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel and concrete structure component in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Polyurethane gasket or foam insulation
7. Pin
8. Sealing mass for water insulation
9. Wall
10. Flashing no. 020
11. Flashing no. 026

Horizontal Joint between panels

Panels installed vertically

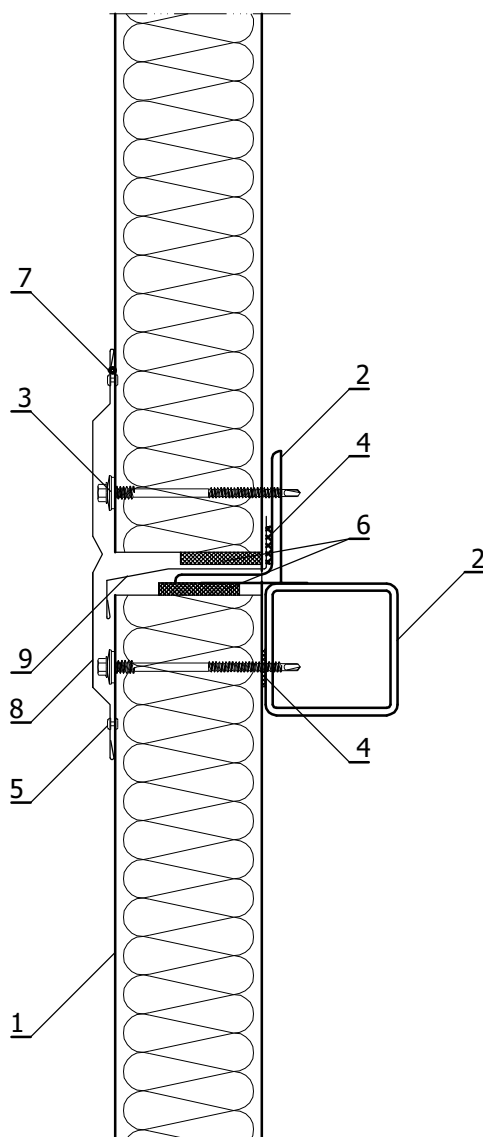


1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel and concrete structure component in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Polyurethane gasket or foam insulation
6. Sealing mass for water insulation*
7. Flashing no. 001 or 002

*optional solution

Vertical joint between panels

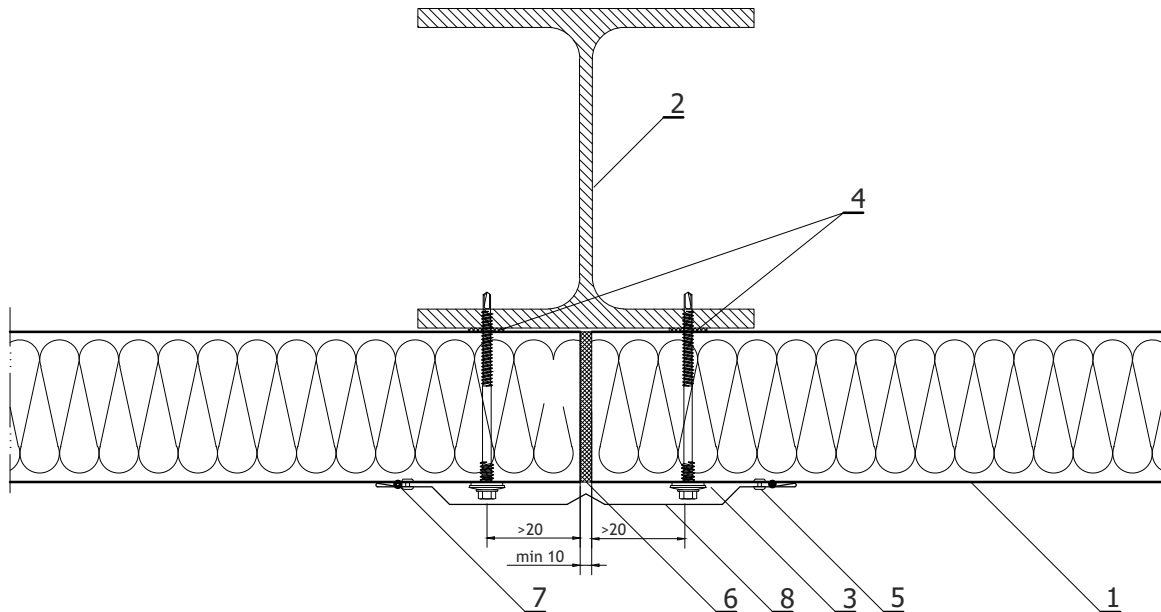
Panels installed vertically



1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure component in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm
6. Polyurethane gasket or foam insulation
7. Sealing mass for water insulation
8. Flashing no. 027
9. Flashing no. 002

Panel fixing to steel post, edge support

Panels installed horizontally

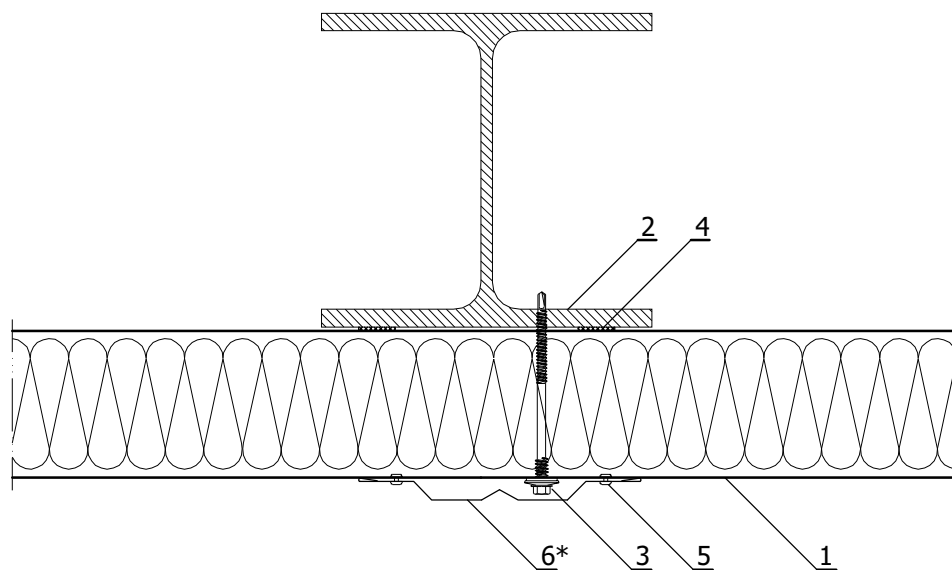


1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure component in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Polyurethane gasket or foam insulation
7. Sealing mass for water insulation
8. Flashing no. 027

Attention: flashing 027 can be substituted with flashings 028 or 029

Panel fixing to steel post or spandrel beam, intermediate support

Panels installed vertically or horizontally



1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Flashing no. 027*

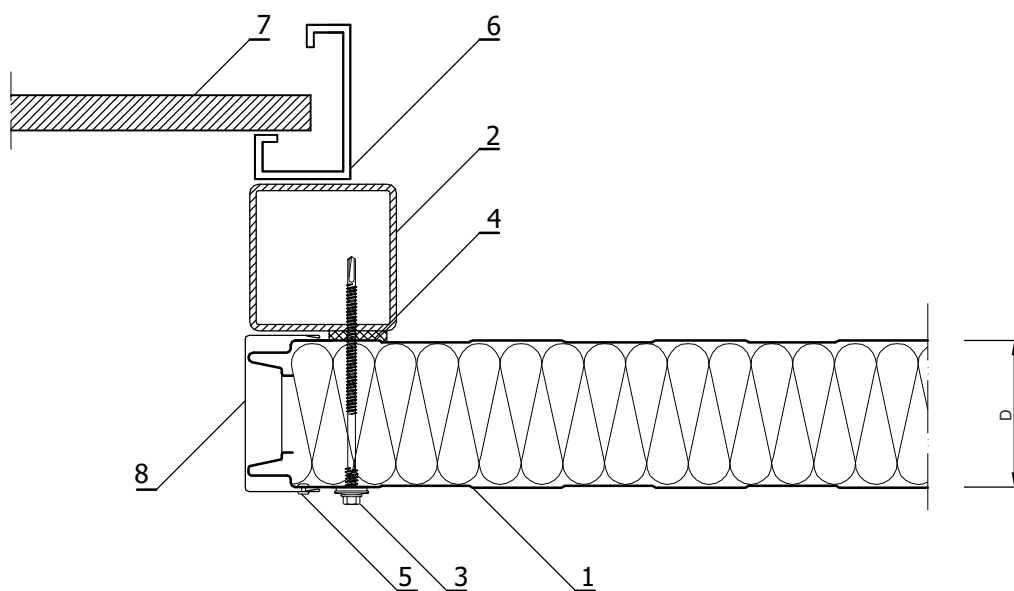
*optional solution

Attention: flashing 027 can be substituted with flashings 028 or 029

Gate opening – the side

One-part opening flashing – option I

Panels installed vertically or horizontally



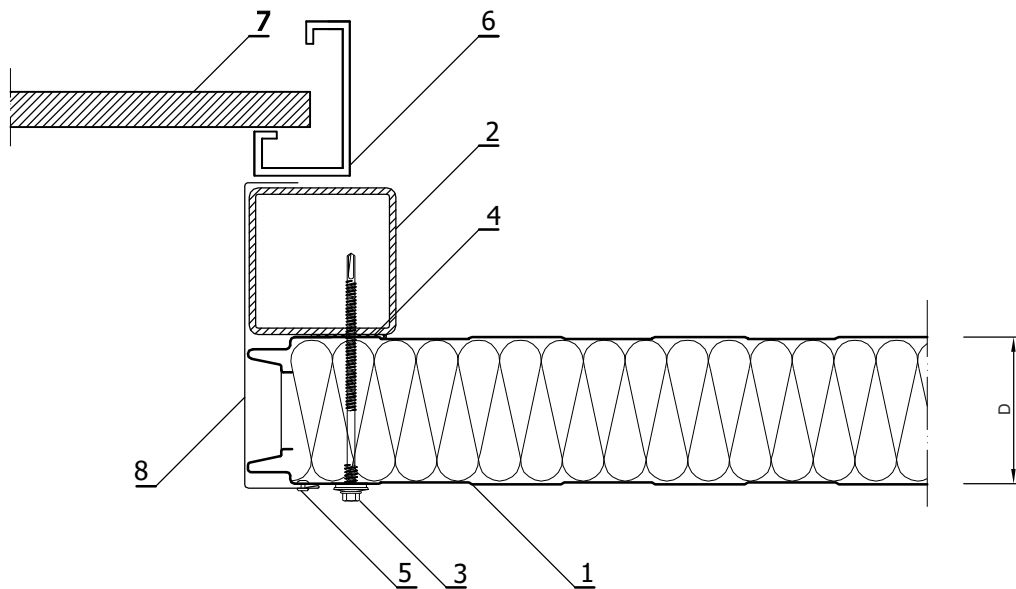
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Gate panel
7. Flashing 025

Gate opening – the side

One-part opening flashing – option II

Panels installed vertically or horizontally



D - panel core thickness

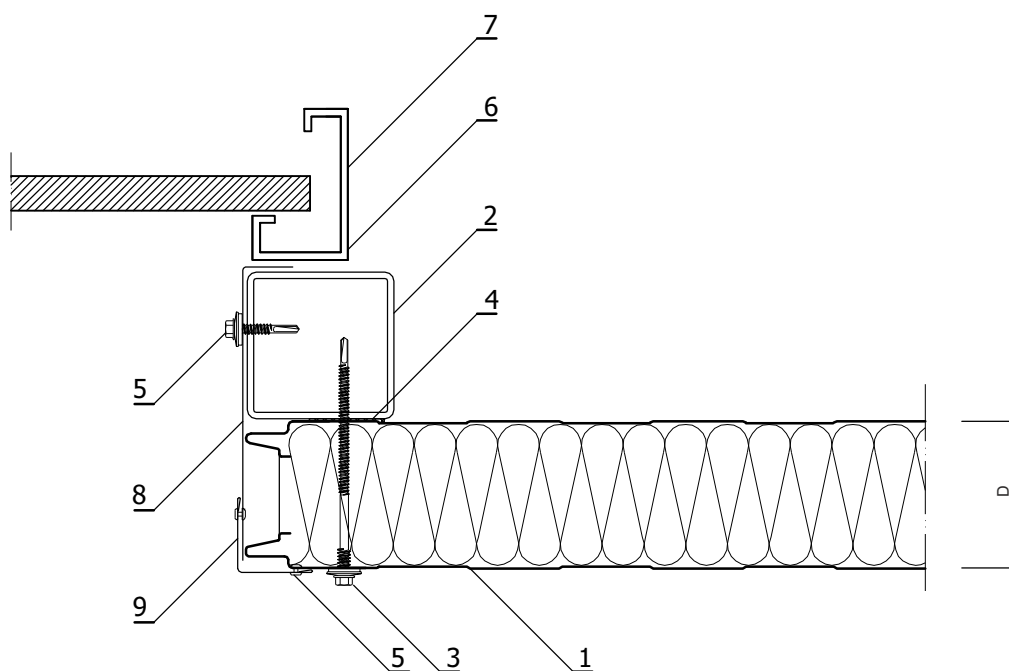
1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sectional or rolling gate guide
7. Gate panel
8. Flashing 036

Attention: flashing 036 can be substituted with flashings 037 or 039

Gate opening – the side

Two-part opening flashing – option I

Panels installed vertically or horizontally



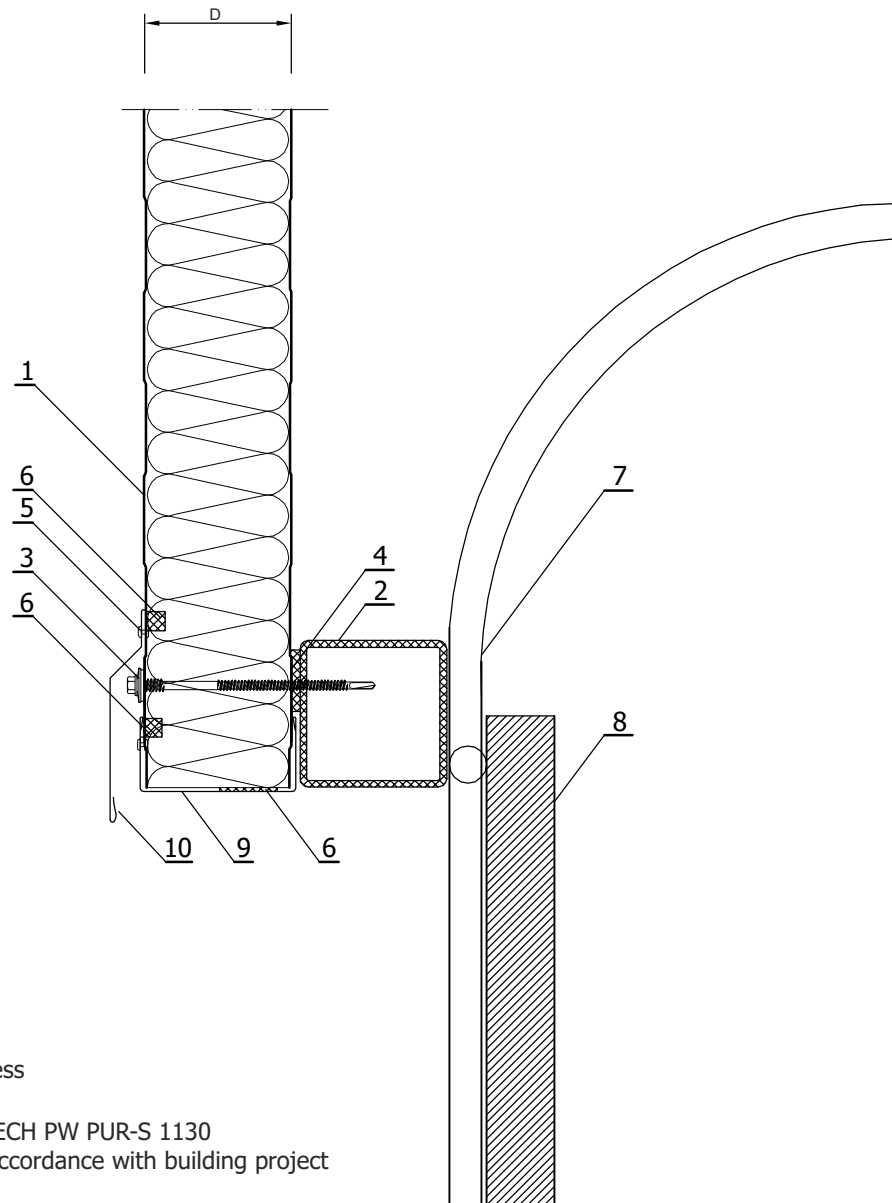
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sectional or rolling gate guide
7. Gate panel
8. Flashing 046
9. Flashing 015

Attention: flashing 015 can be substituted with flashings 016, 047 or 049

Gate opening – the head
One-part opening flashing – option I

Panels installed vertically or horizontally

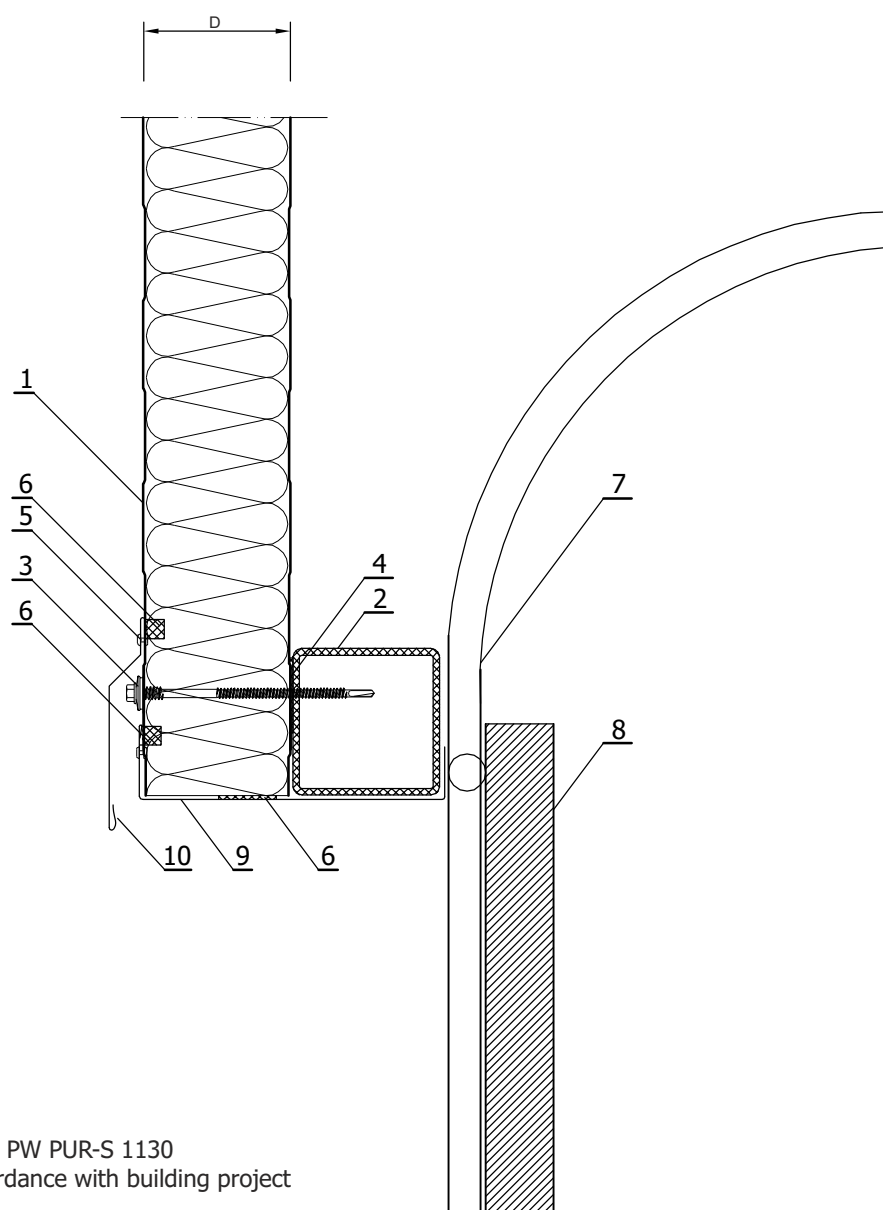


D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sealing mass for water insulation
7. Sectional gate guide
8. Gate panel
9. Flashing 025
10. Flashing 005

Gate opening – the head
One-part opening flashing – option II

Panels installed vertically or horizontally



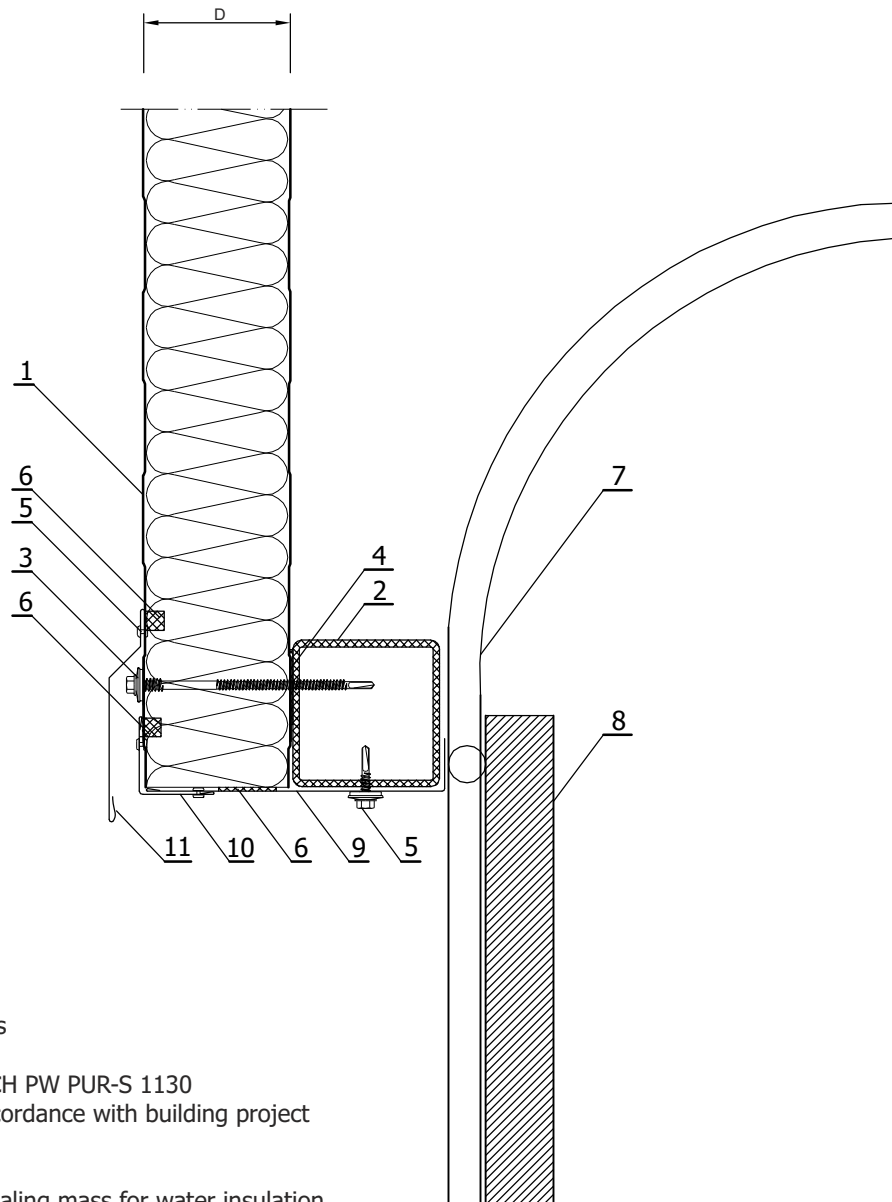
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Sealing mass for water insulation
7. Sectional gate guide
8. Gate panel
9. Flashing 036
10. Flashing 005

Gate opening – the head

Two-part opening flashing – option I

Panels installed vertically or horizontally

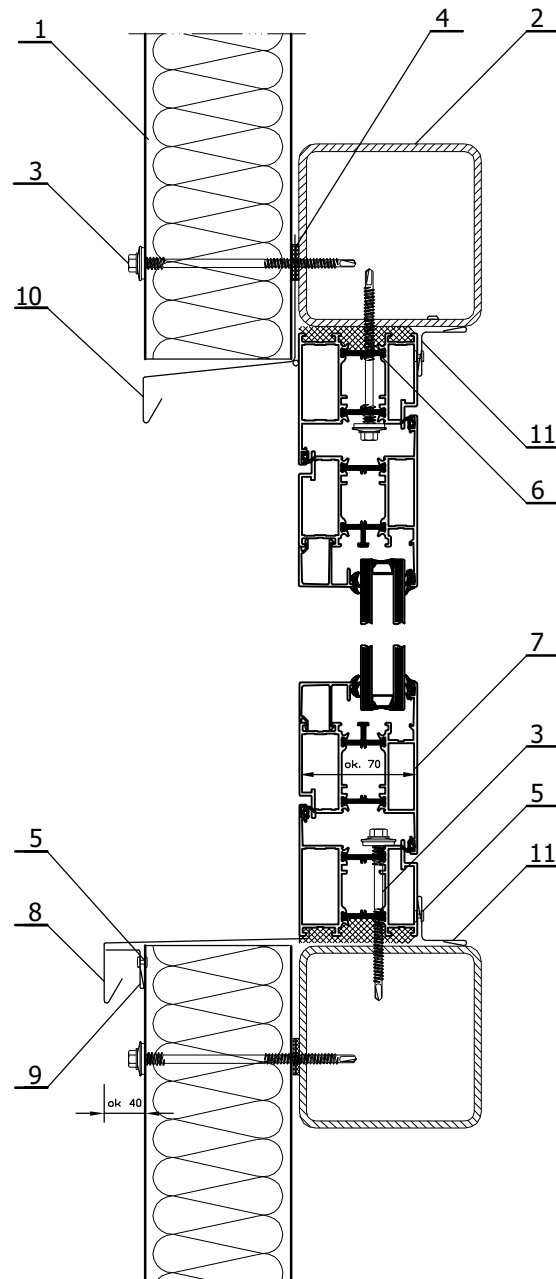


D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or Sealing mass for water insulation
6. self-drilling screw
7. Sectional or rolling gate guide
8. Gate panel
9. Flashing 046
10. Flashing 015 or 016
11. Flashing 005

Window installation in steel structure or wall – vertical section

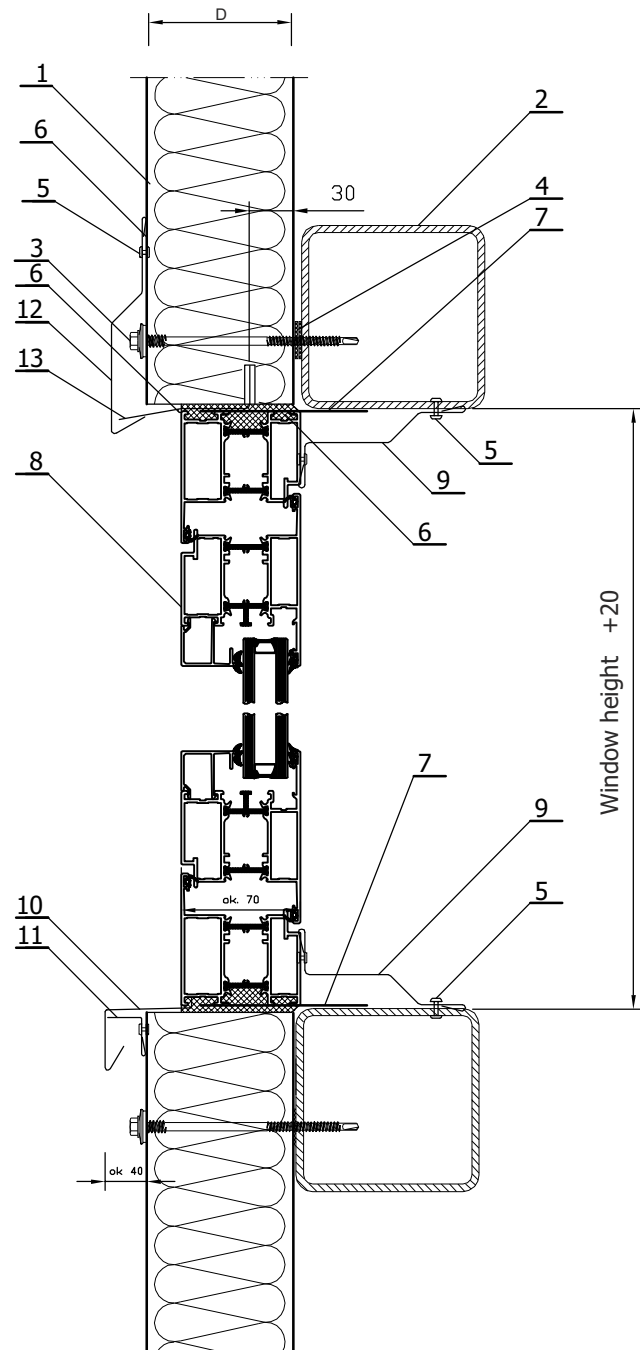
Panels installed vertically or horizontally



1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Foam insulation
7. Aluminium or PVC window
8. Flashing 051
9. Flashing 052
10. Flashing 053
11. Flashing 020

Window installation in sandwich panel – vertical section

Panels installed vertically or horizontally

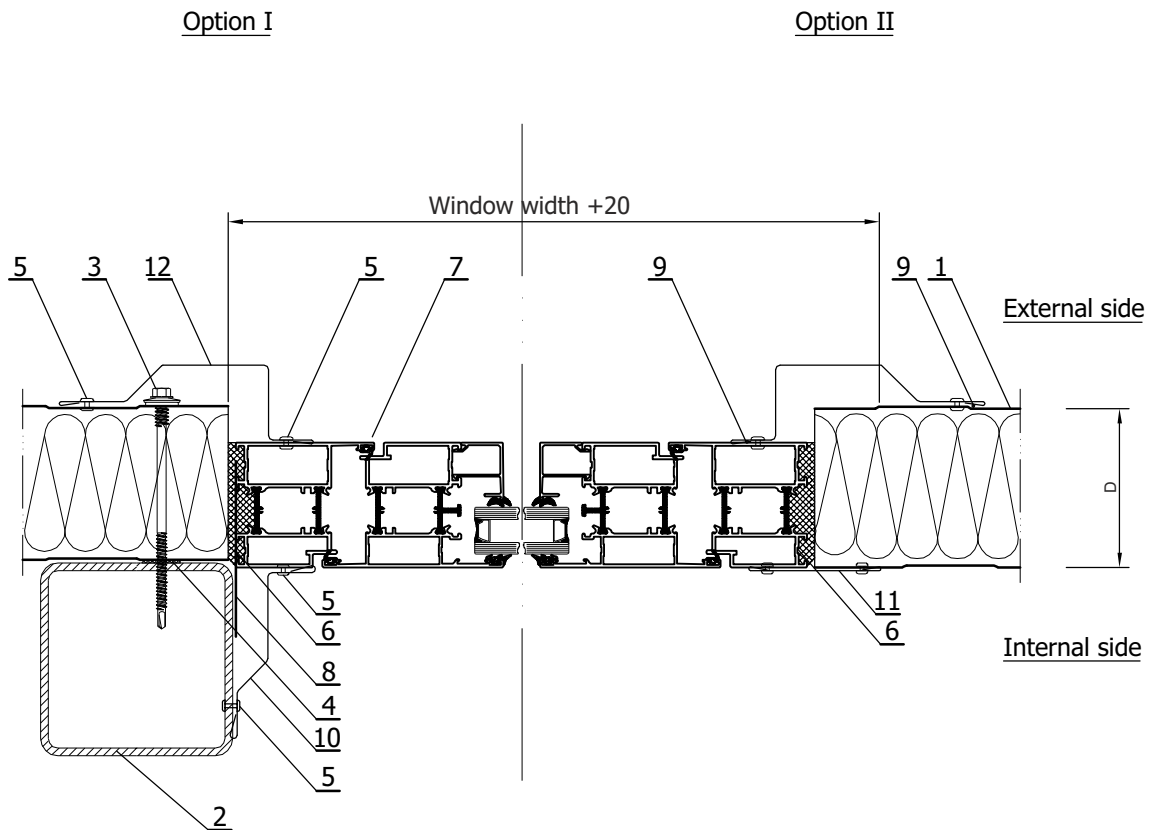


D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure component in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Foam insulation
7. Anchor
8. Aluminium or PVC window
9. Flashing 012
10. Flashing 051
11. Flashing 052
12. Flashing 006
13. Flashing 054

Window installation in sandwich panel – horizontal section

Panels installed vertically or horizontally

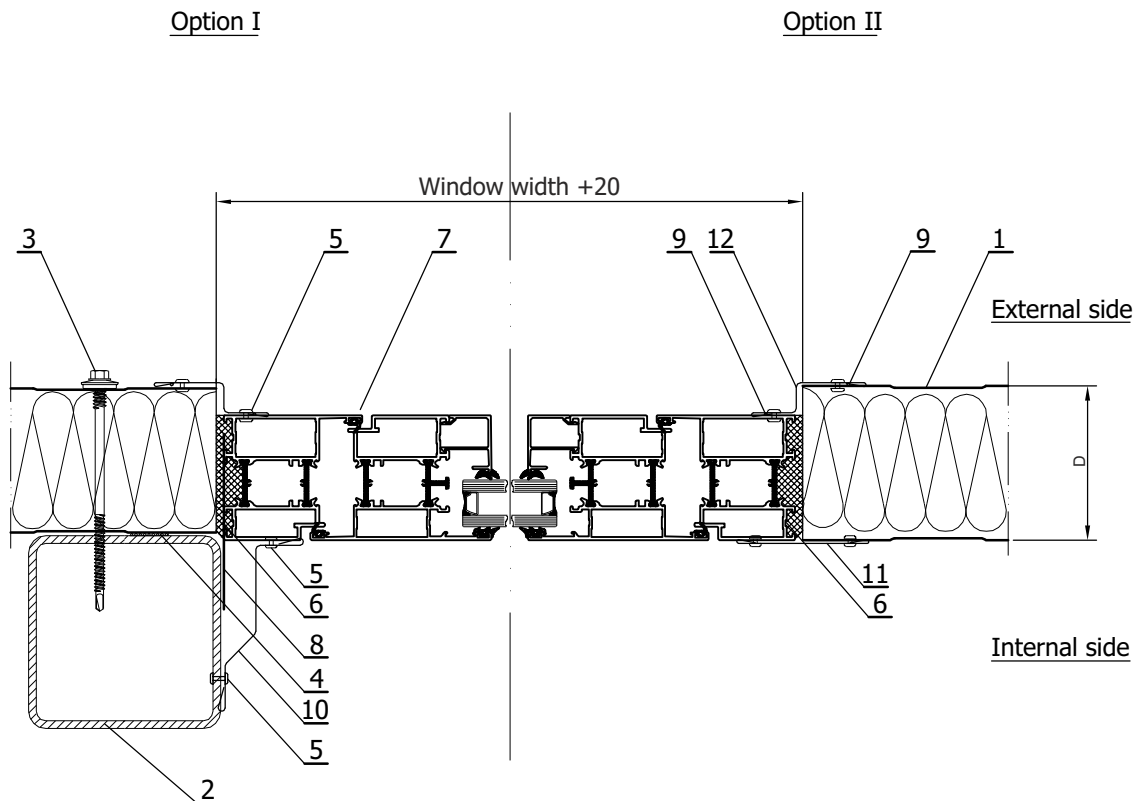


D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Foam insulation
7. Aluminium or PVC window
8. Anchor
9. Sealing mass for water insulation
10. Flashing 012
11. Flashing 026
12. Flashing 056

Window installation in sandwich panel – horizontal section

Panels installed vertically or horizontally



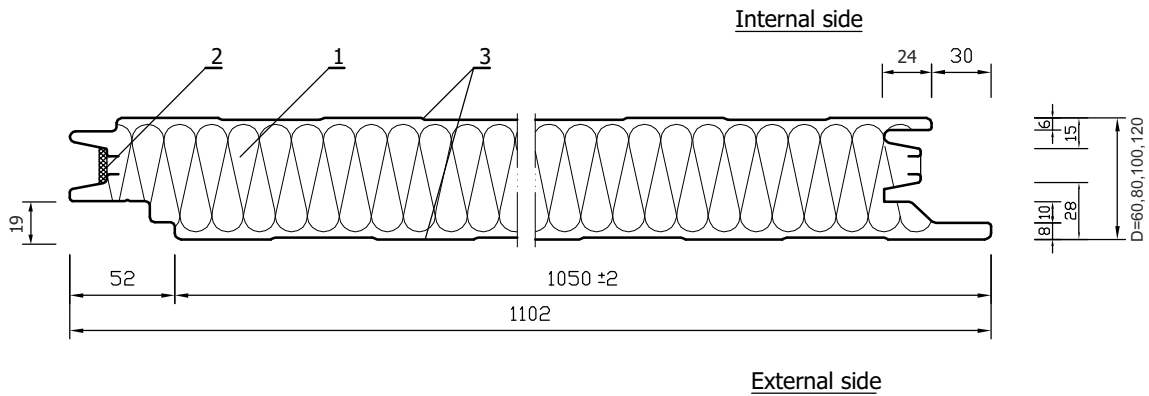
D - panel core thickness

1. Wall panel PaNELTECH PW PUR-S 1130
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm or self-drilling screw
6. Foam insulation
7. Aluminium or PVC window
8. Anchor
9. Sealing mass for water insulation
10. Flashing 058
11. Flashing 026
12. Flashing 055

Wall sandwich panel PaNELTECH PW PUR-SU 1050 (hidden joint)

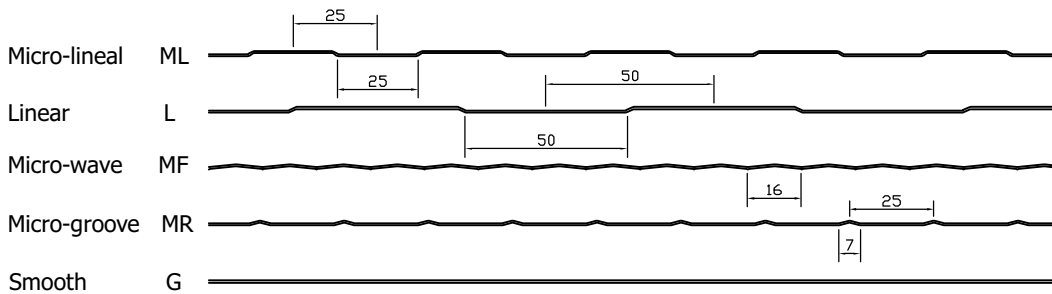
Draw. SU01

Production scope

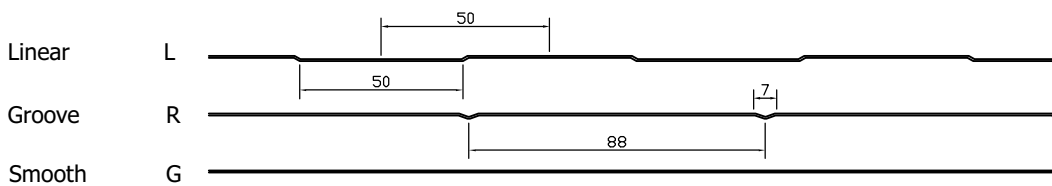


1. PU foam core
2. Polyurethane gasket, thickness 6mm, applied during production
3. Steel sheet facings

Available external facing profiles



Available internal facing profiles

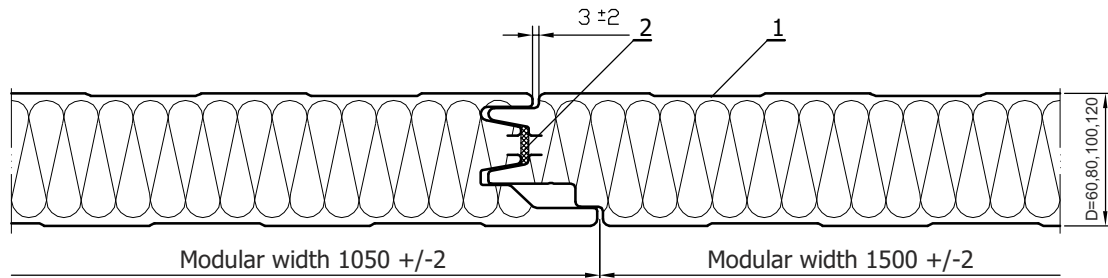


* Drawings refer also to PW PIR-SU panels.

Wall sandwich panel PaNELTECH PW PUR-SU 1050 (hidden joint)

Draw. SU02

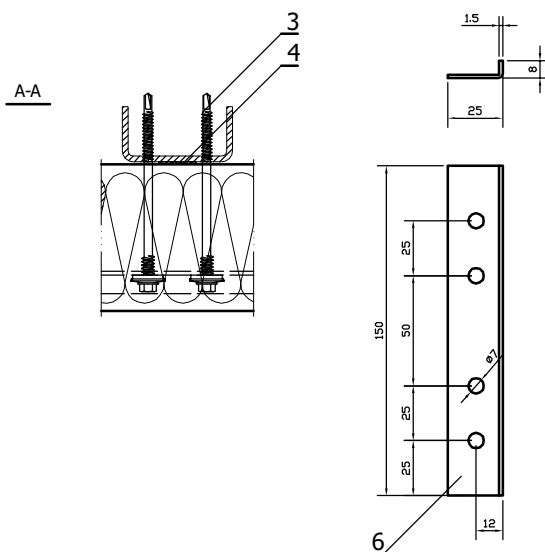
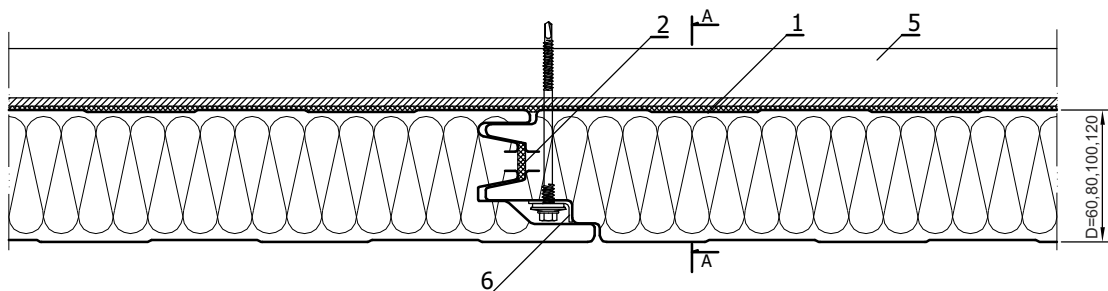
The joint between PaNELTECH PW PUR-SU 1050 panels, thickness 60, 80, 100, 120 mm.



1. Wall panel PaNELTECH PW PUR-SU 1050

Draw. SU03

Fixing of wall panels PaNELTECH PW PUR-SU 1050, thickness 60, 80, 100, 120 mm.



1. Wall panel PaNELTECH PW PUR-SU 1050
2. Polyurethane gasket applied during production
3. Self-drilling screw
4. Polyethylene tape
5. Steel structure in accordance with building project
6. SU washer (flashing 070)

Drawings of PW PUR-SU joints were shown on respective panel PW PUR-S drawings

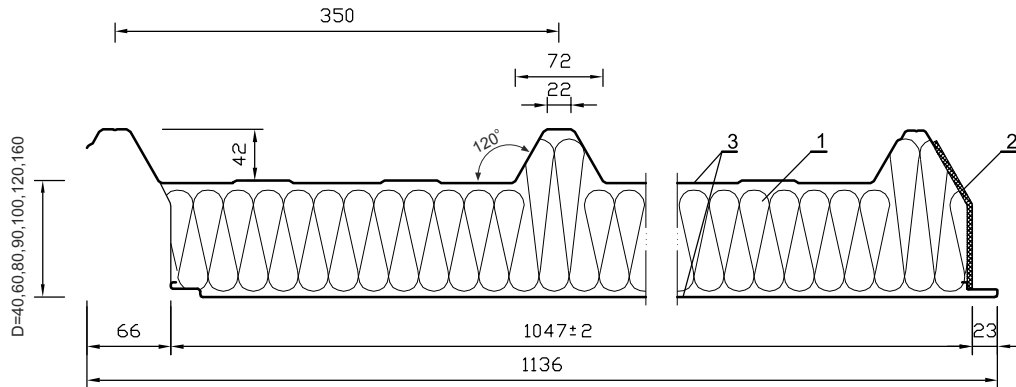
PW PUR-SU panels installed vertically	S10.1.; S11.1.; S11.2.; S12.1.; S15.1.; S15.2.; S20.1.; S20.2.; S22.1.; S24.1.; S24.2.; S26.2.; S28.2.; S40.1.; S40.2.; S41.1.; S43.1.; S47.1.; S48.1.; S48.2.
PW PUR-SU panels installed horizontally	S10.4.; S15.1.; S15.2.; S20.1.; S20.2.; S22.1.; S26.2.; S28.2.; S40.1.; S40.2.; S41.1.; S42.1.; S42.2.; S43.1.; S47.1.; S48.1.; S48.2.

The above mentioned drawings do not show the specific PW PUR-SU joint.

Roof sandwich panel PaNELTECH PW PUR-D 1050

Draw. D01

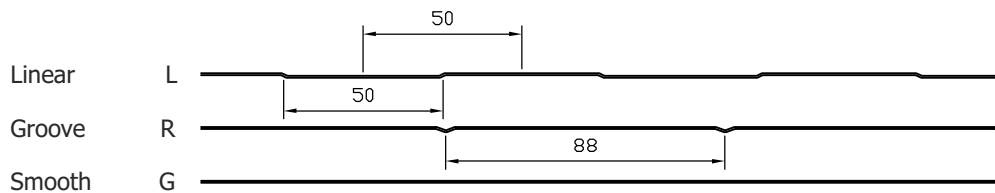
Production scope



D = core thickness

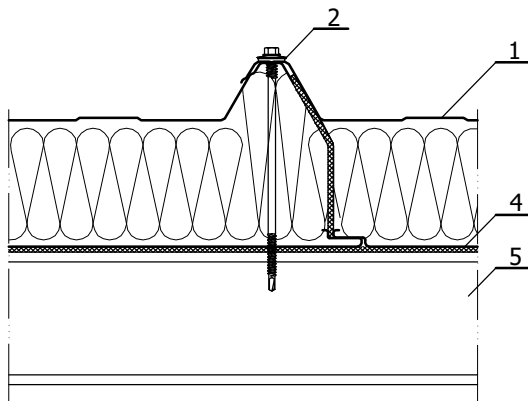
1. PU foam core
2. Polyurethane gasket, thickness 6mm, applied during production
3. Steel sheet facings

Available internal facing profiles



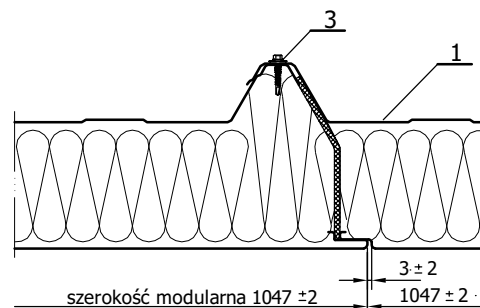
Roof panel joint

Cross-section of the panel mounting to the construction with self-drilling screw



Roof panel joint

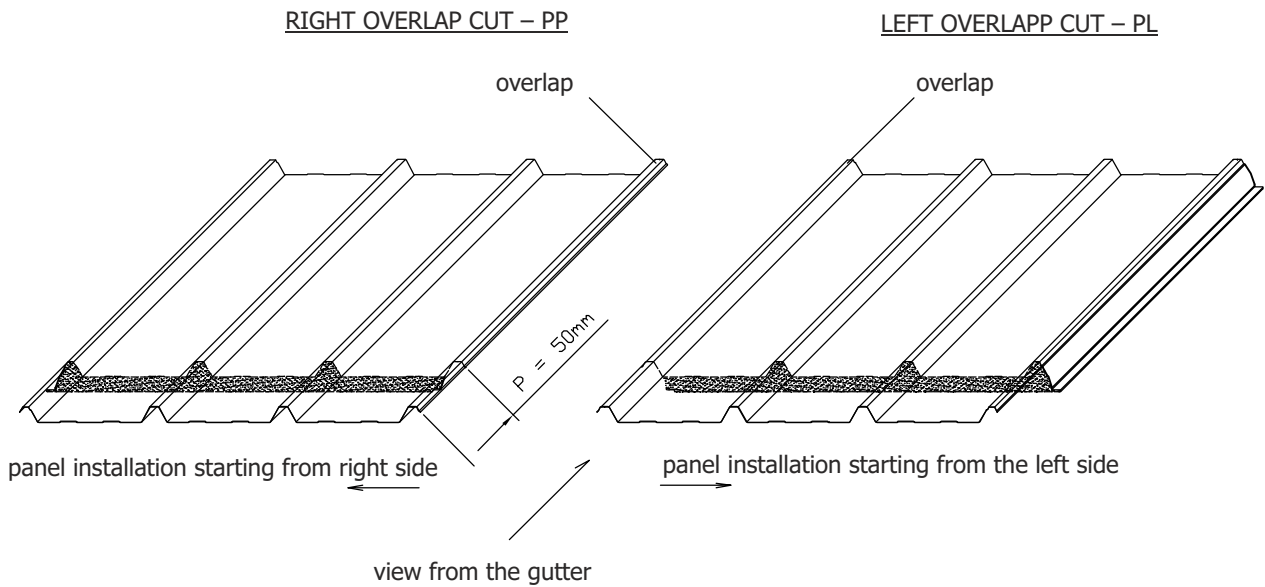
Cross-section of the external facings joint with self-drilling screw (so called "farmer") in distance 300÷400mm



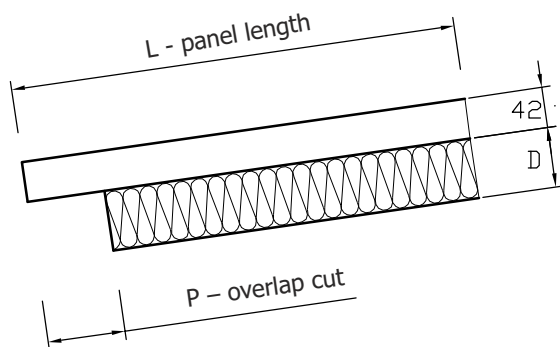
1. Roof panel PaNELTECH PW PUR-D
2. Self-drilling screw with EPDM washer
3. Self-drilling screw with EPDM washer (So called "farmer")
4. Polyethylene tape
5. Steel construction according to building project

* Drawings refer also to PW PIR-D panels.

Overlap cutting types



Overlap cutting dimensions



P = 0mm – no overlap cut

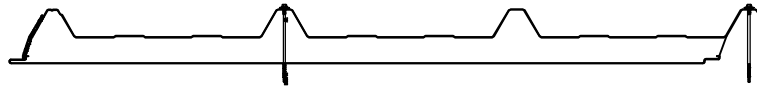
P = 50mm – overlap cut by the eaves (draw. D11.1 and D11.2)

P = 200mm – overlap cut by dilatation joint between panels (draw. D12)

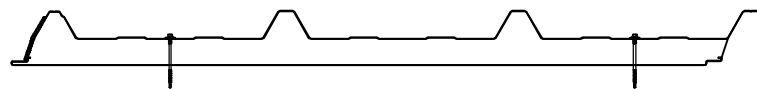
P = 250mm – maximal overlap cut

Suggested placement of the fixings:

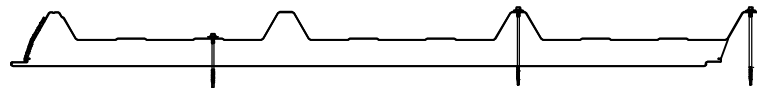
1. Standard placement *



2. Placement in the roof ridge *

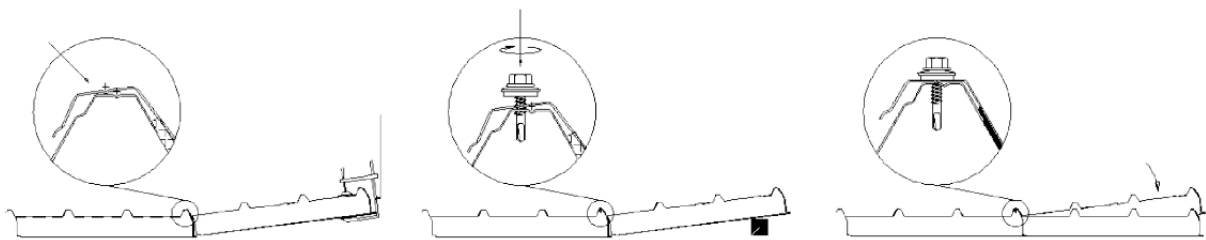


3. Placement in the edge roof panels *



* the number of fixings and distance between supports should be adjusted by the constructor depending on the wind loads and with reference to load bearing tables and spans.

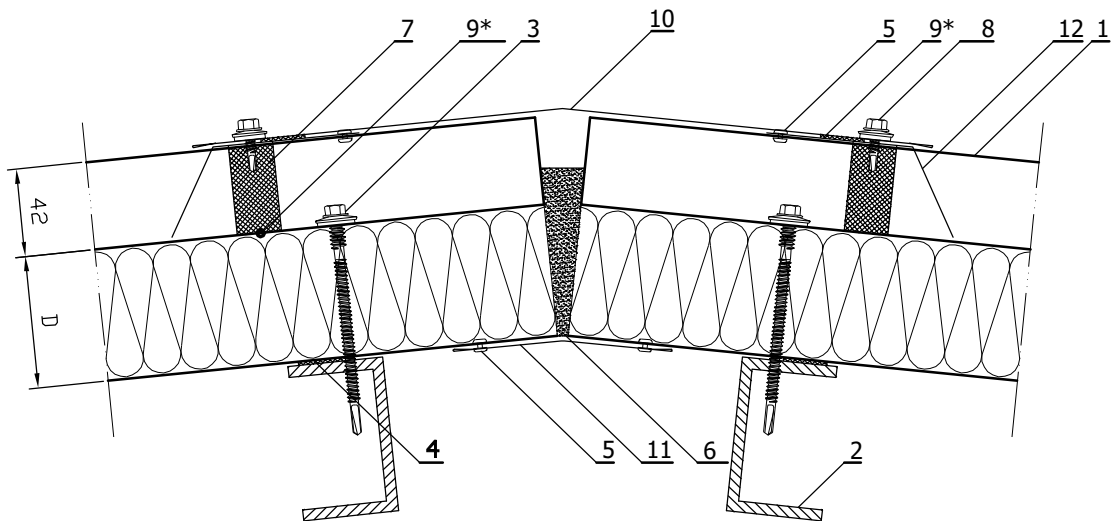
The longitudinal joint between roof panels should be reinforced by screws for sheet joining with EPDM washer in the span of 300 – 400 mm, installed on rib



During roof panels installation special attention should be paid to the connection between insulation core of the panels. Flexible polyurethane gasket should be fit tightly on the entire surface of the fixing, providing adequate air and water tightness. First panel should be fastened to the supports, than on the rib of this panel the overlap from the second panel should be applied at angle from other side and fix it with screw. Make sure that the screw goes exactly through the overlap and the rib. Than second panel can be placed on the first one and fastened to the supports.

Cycle of progressive application of the panels with the overlaps, fixing overlaps to the ribs, lowering next panel on each other and fastening panels to supports should be continued on the entire roof surface (see the drawings above).

Panel installation on the roof ridge – slope sectional view

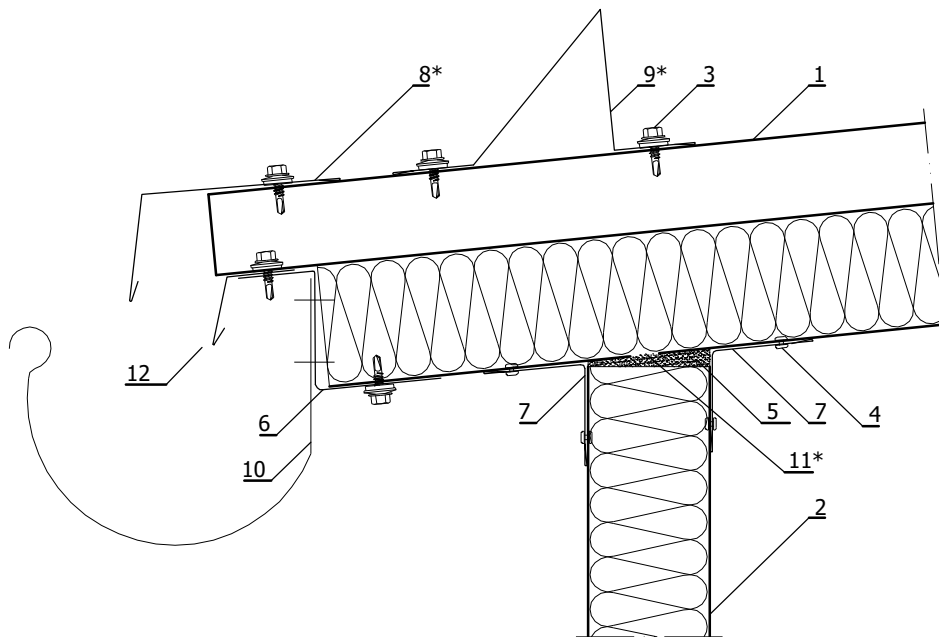


D – panel core thickness

1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12 mm
6. PU foam
7. PU gasket UD 42
8. Self-drilling screw or tight rivet 4x12 mm
9. Sealing mass for water insulation, recommended by low roof slope*
10. Flashing no. 101
11. Flashing no. 103
12. Flashing no. 102

*optional solution

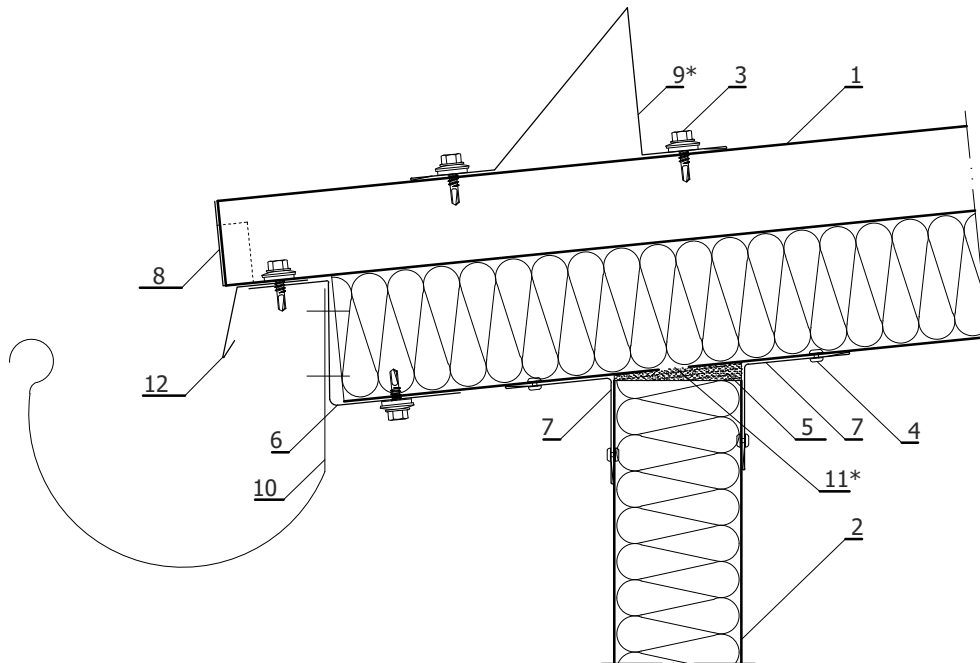
The joint between wall and roof panels
Gutter eaves - option I



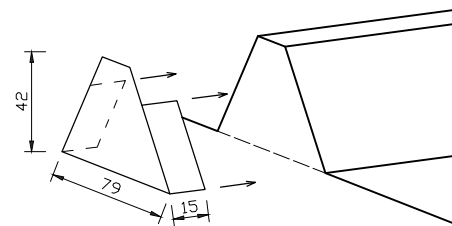
1. Roof panel PaNELTECH PW PUR-D 1050
2. Wall panel PaNELTECH
3. Self-drilling screw
4. Rivet 4x12 mm or self-drilling screw
5. Installation PU foam
6. Flashing no. 130
7. Flashing no. 020
8. Flashing no. 109*
9. Flashing no. 111*
10. Gutter system
11. A cut made in the panel facing made to improve thermal insulation *
12. Flashing no. 110

*optional solution

The joint between wall and roof panels
Gutter eaves - option II



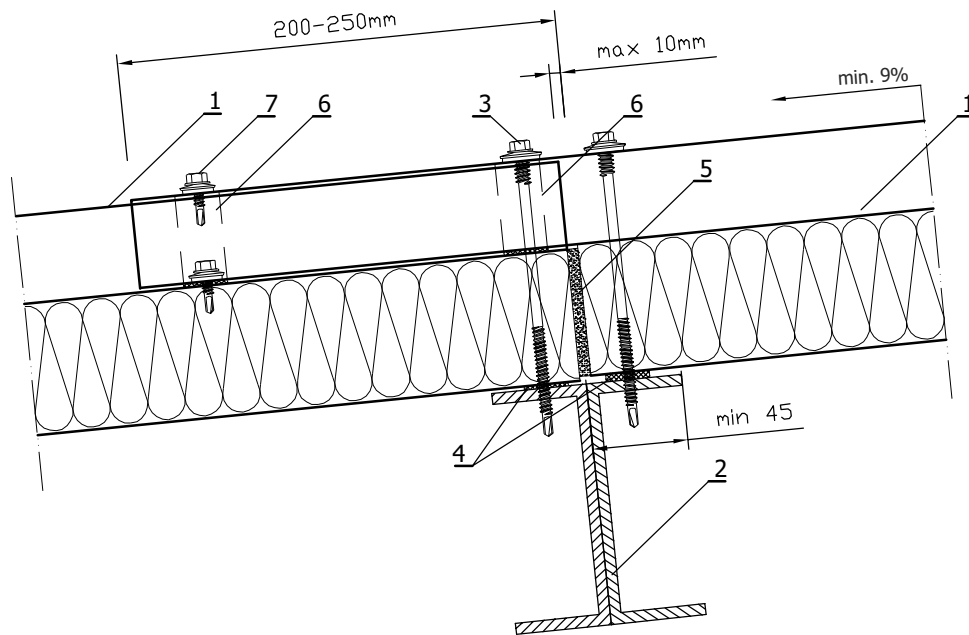
Roof end cap Z42



1. Roof panel PaNELTECH PW PUR-D 1050
2. Wall panel PaNELTECH
3. Self-drilling screw
4. Rivet 4x12 mm or self-drilling screw
5. Installation PU foam
6. Flashing no. 130
7. Flashing no. 020
8. Roof end cap Z42
9. Flashing no. 111*
10. Gutter system
11. A cut made in the panel facing made to improve thermal insulation *
12. Flashing no. 110

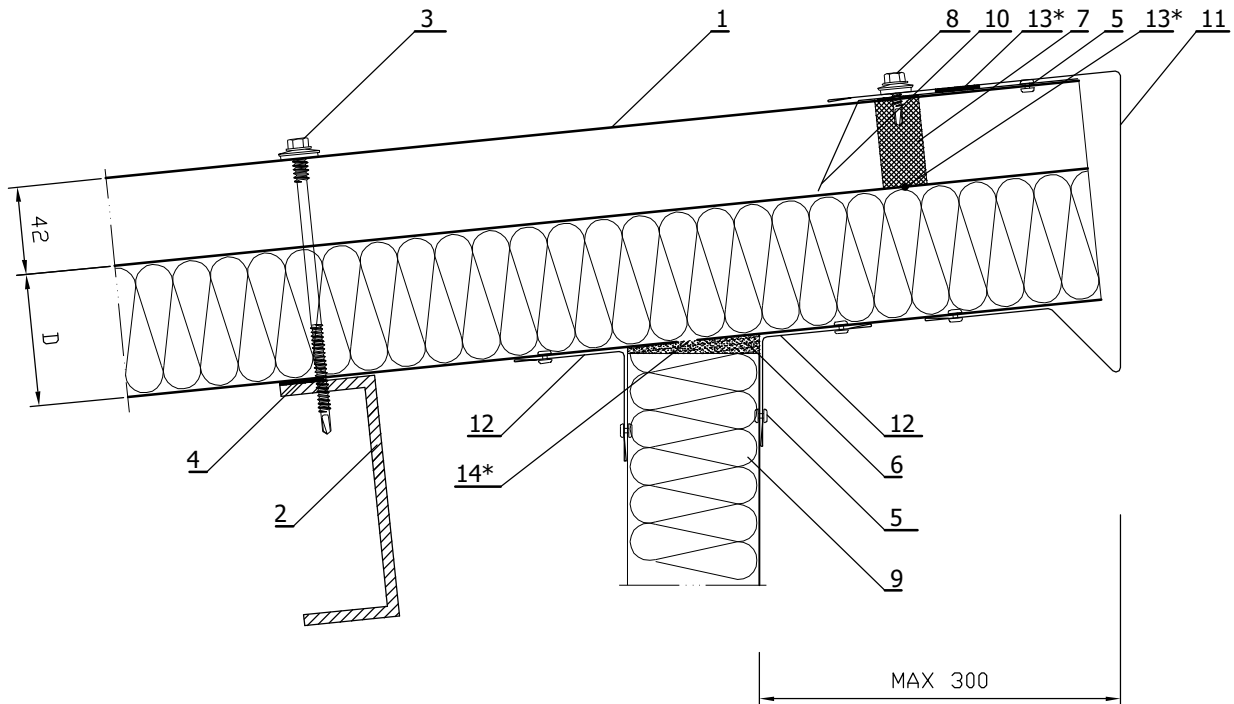
*optional solution

Dilatation joint between roof panels - cross-section along the slope



1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project, minimal support for each panel 40mm
3. Self-drilling screw
4. Polyethylene tape
5. PU foam or thermal insulation tape
6. Sealing mass for water insulation (butyl or silicone)
7. Self-drilling screw for steel sheet (ab. every 120mm)

The joint between roof panel and wall
 Shed roof with eaves – horizontal section of the slope

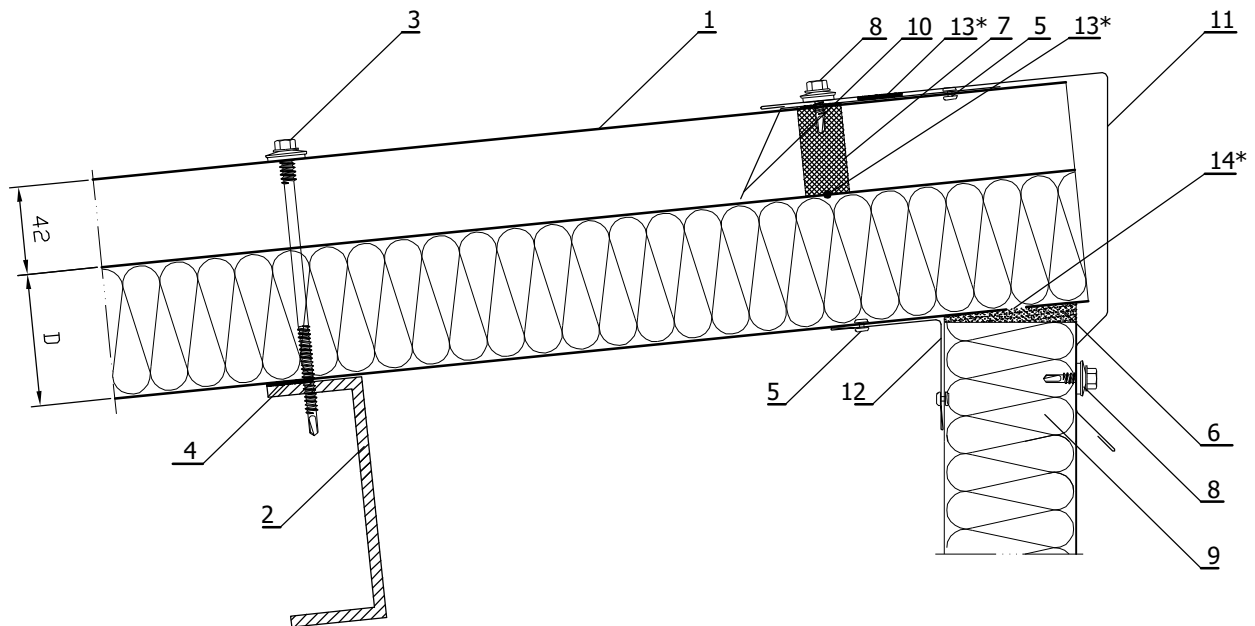


D – panel core thickness

1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12mm
6. PU foam
7. PU gasket UD42
8. Self-drilling screw for steel sheet
9. Wall panel PaNELTECH
10. Flashing 102
11. Flashing 106
12. Flashing 020
13. Sealing mass for water insulation, recommended by low roof slope*
14. A cut made in the panel facing made to improve thermal insulation *

*optional solution

The joint between roof panel and wall
 Shed roof without eaves – horizontal section of the slope

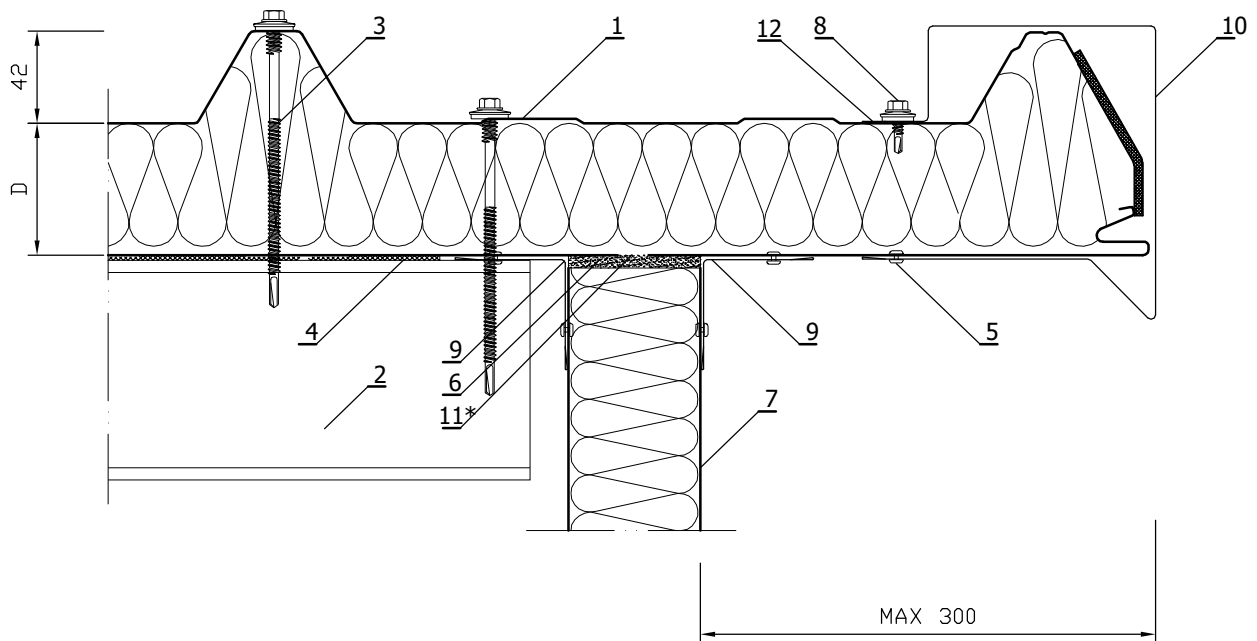


D – panel core thickness

1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12mm
6. PU foam
7. PU gasket UD42
8. Self-drilling screw for steel sheet
9. Wall panel PaNELTECH
10. Flashing 102
11. Flashing 104
12. Flashing 020
13. Sealing mass for water insulation, recommended by low roof slope*
14. A cut made in the panel facing made to improve thermal insulation *

*optional solution

The joint between roof panel and top wall
Shed roof with eaves – cross section of the slope

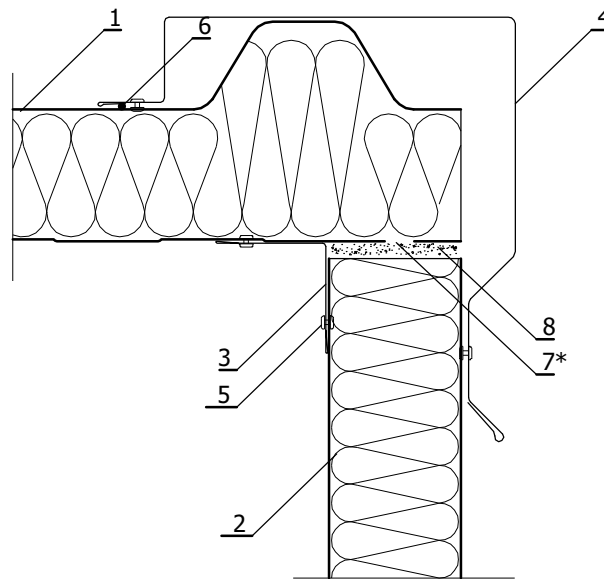


D – panel core thickness

1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12mm or self-drilling screw
6. PU foam
7. Wall panel PaNELTECH
8. Self-drilling screw for steel sheet
9. Flashing 020
10. Flashing 107
11. A cut made in the panel facing made to improve thermal insulation *
12. Sealing mass for water insulation

*optional solution

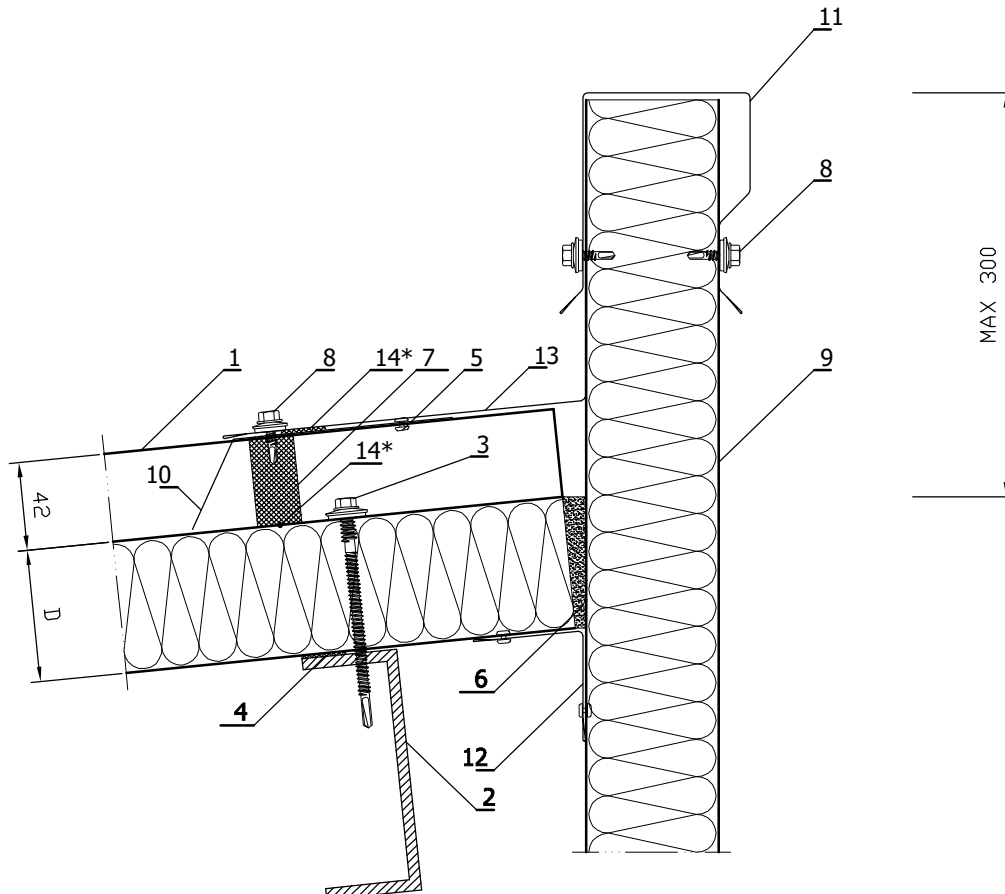
The joint between roof panel and top wall
Shed roof without eaves – cross section of the slope



1. Roof panel PaNELTECH PW PUR-D 1050
2. Wall panel PaNELTECH PW PUR-S 1130
3. Flashing 020
4. Flashing 105
5. Rivet 4x12mm or self-drilling screw
6. Sealing mass for water insulation
7. A cut made in the panel facing made to improve thermal insulation *
8. PU foam

*optional solution

The joint between roof panel and attic wall
Shed roof – horizontal section of the slope



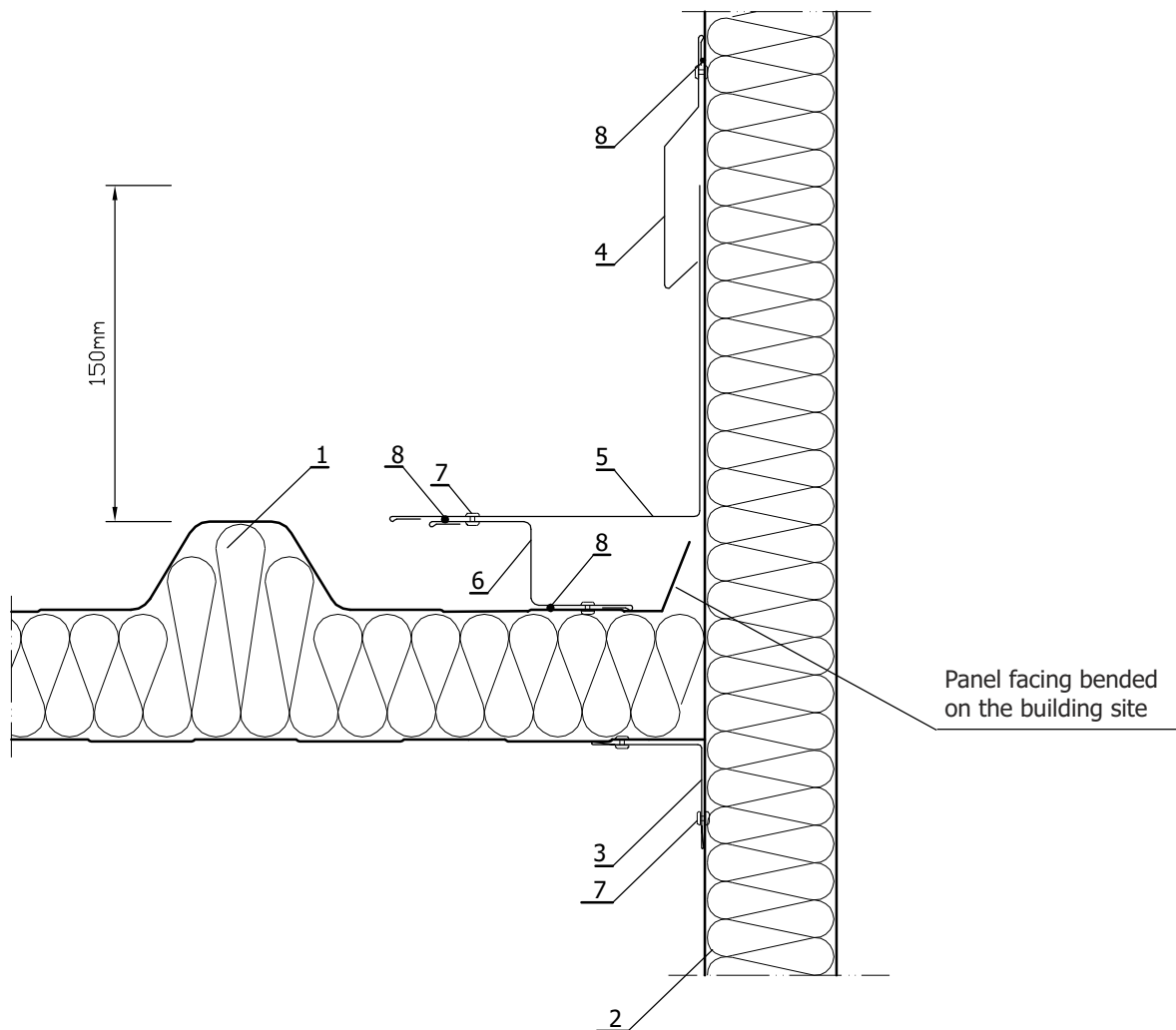
D – panel core thickness

1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12mm
6. PU foam
7. PU gasket UD42
8. Self-drilling screw for steel sheet
9. Wall panel PaNELTECH
10. Flashing 102
11. Flashing 113 (or 112)
12. Flashing 020
13. Flashing 114 (or 114+118)
14. Sealing mass for water insulation, recommended by low roof slope*

*optional solution

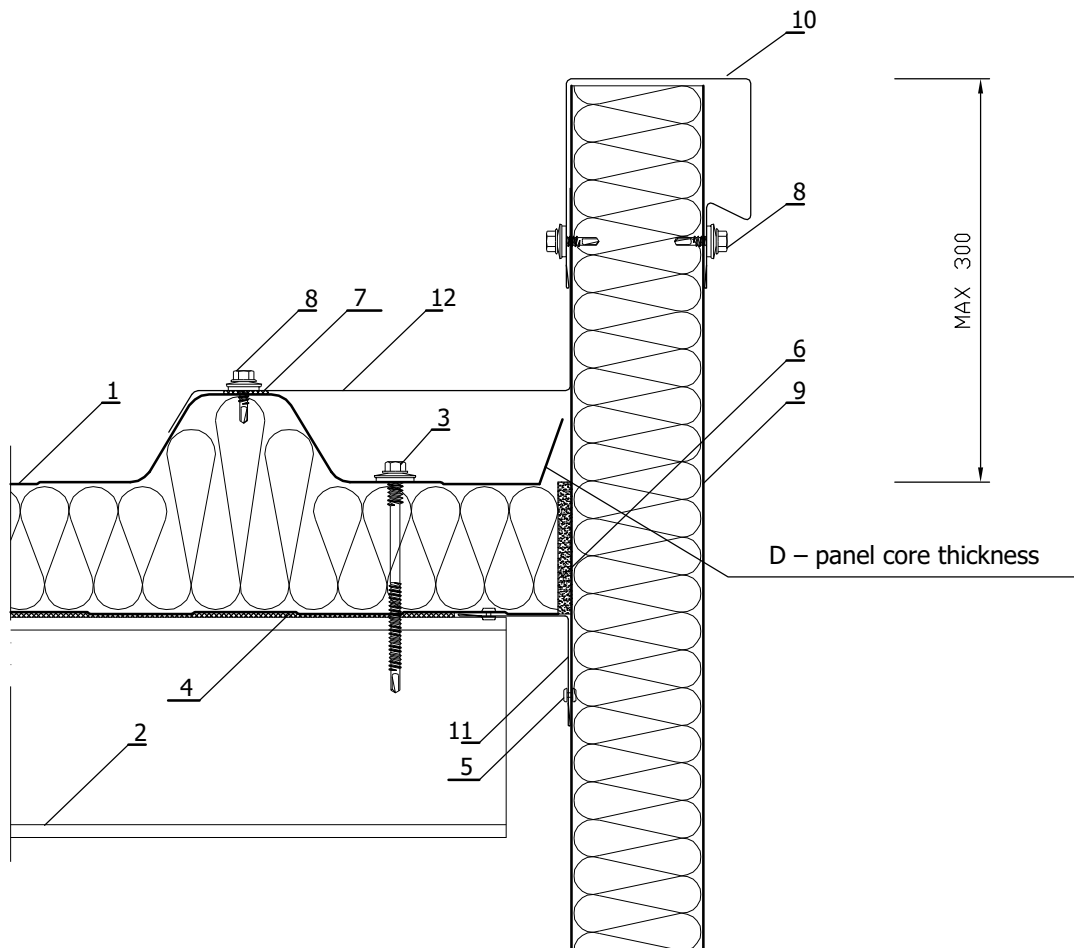
The joint between roof panel and wall
Cross section of the slope

Universal solution



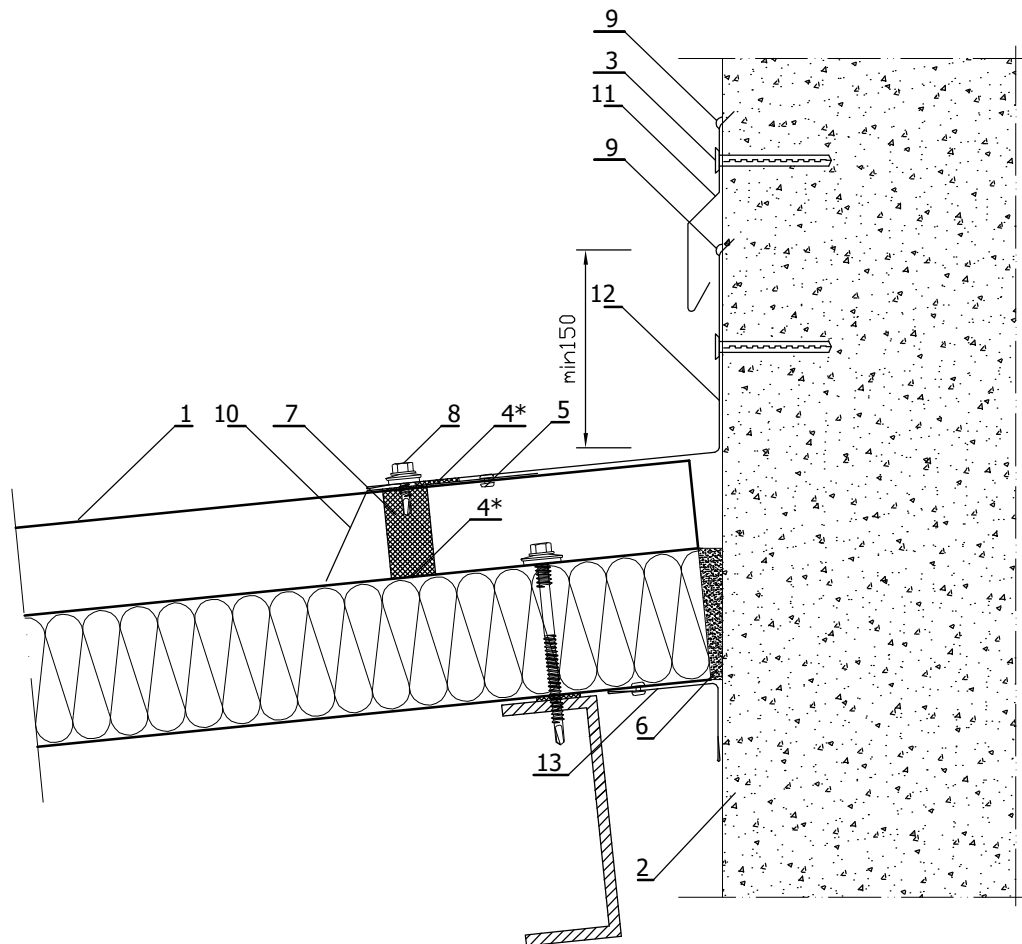
1. Roof panel PaNELTECH PW PUR-D 1050
2. Wall panel PaNELTECH PW PUR-S 1130
3. Flashing 020
4. Flashing 118
5. Flashing 114
6. Flashing 121
7. Self-drilling screw or rivet 4x12 mm
8. Sealing mass for water insulation

The joint between roof panel and attic wall – cross section of the slope



1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12mm
6. PU foam
7. Sealing mass for water insulation, recommended by low roof slope*
8. Self-drilling screw for steel sheet
9. Wall panel PaNELTECH
10. Flashing 112 or 113
11. Flashing 020
12. Flashing 116

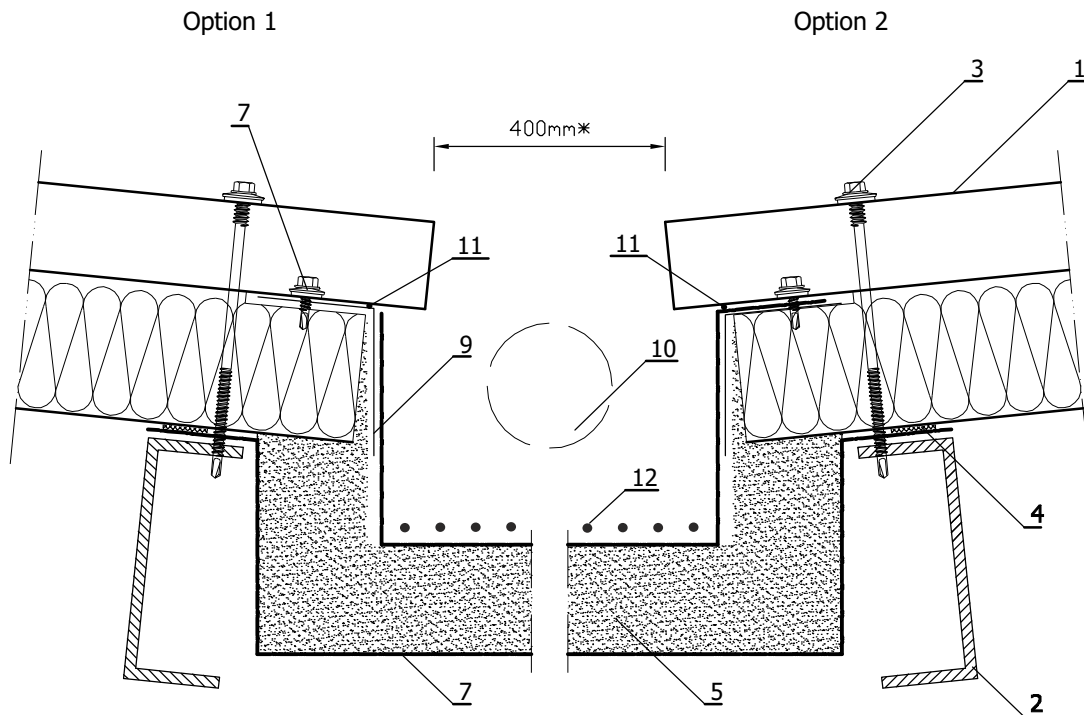
The joint between roof panel and reinforced concrete wall
Shed roof – horizontal section of the slope



1. Roof panel PaNELTECH PW PUR-D 1050
2. Reinforced concrete wall
3. Fast installation pin
4. Sealing mass for water insulation, recommended by low roof slope*
5. Rivet 4x12mm
6. PU foam
7. PU gasket UD42
8. Self-drilling screw for steel sheet
9. Sealing mass
10. Flashing 102
11. Flashing 119
12. Flashing 114
13. Flashing 020

*optional solution

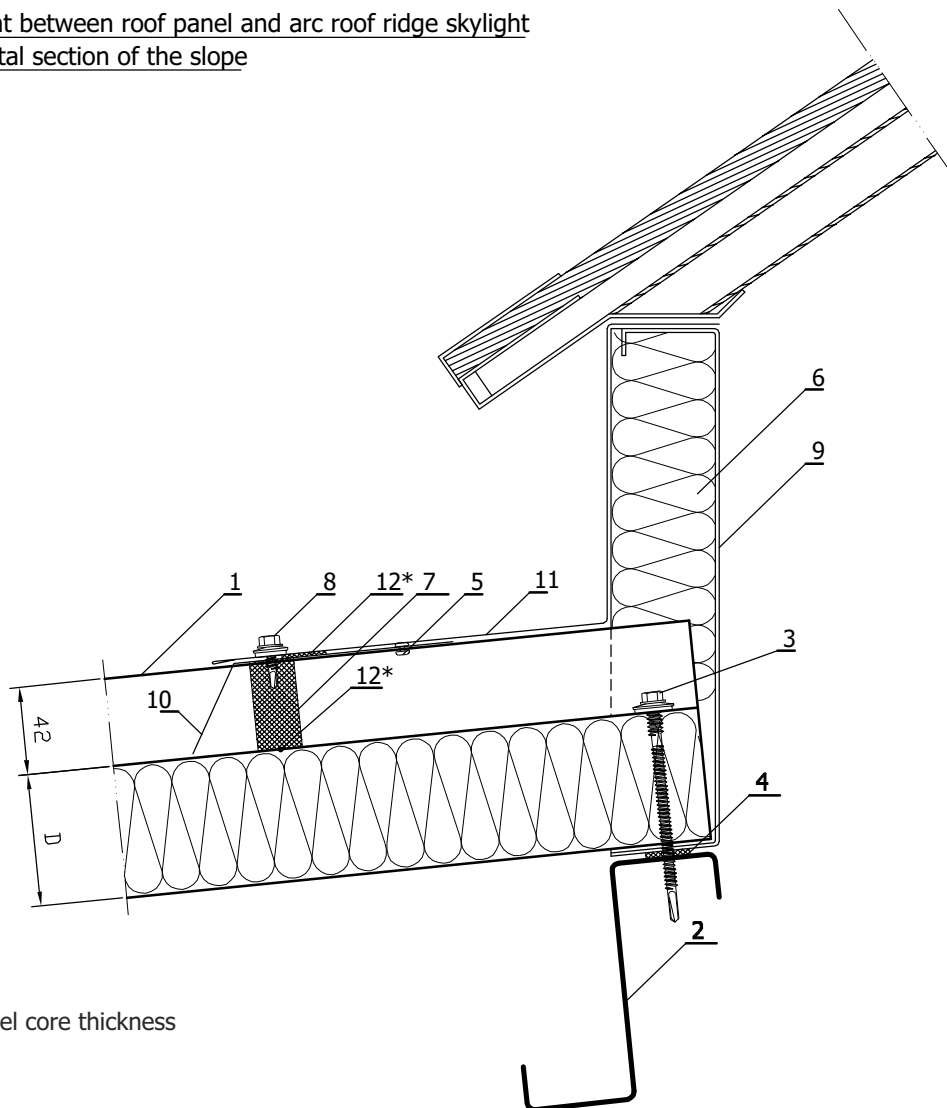
Internal gutter – technical solutions



1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Thermal insulation
6. Self-drilling screw for steel sheet
7. External bearing profile – in accordance with building project
8. Water insulation – PVC membrane or building paper
9. Flashing
10. Overflow hole in the wall
11. Sealing mass for water insulation
12. Channel heating system

* advised solution

The joint between roof panel and arc roof ridge skylight
Horizontal section of the slope

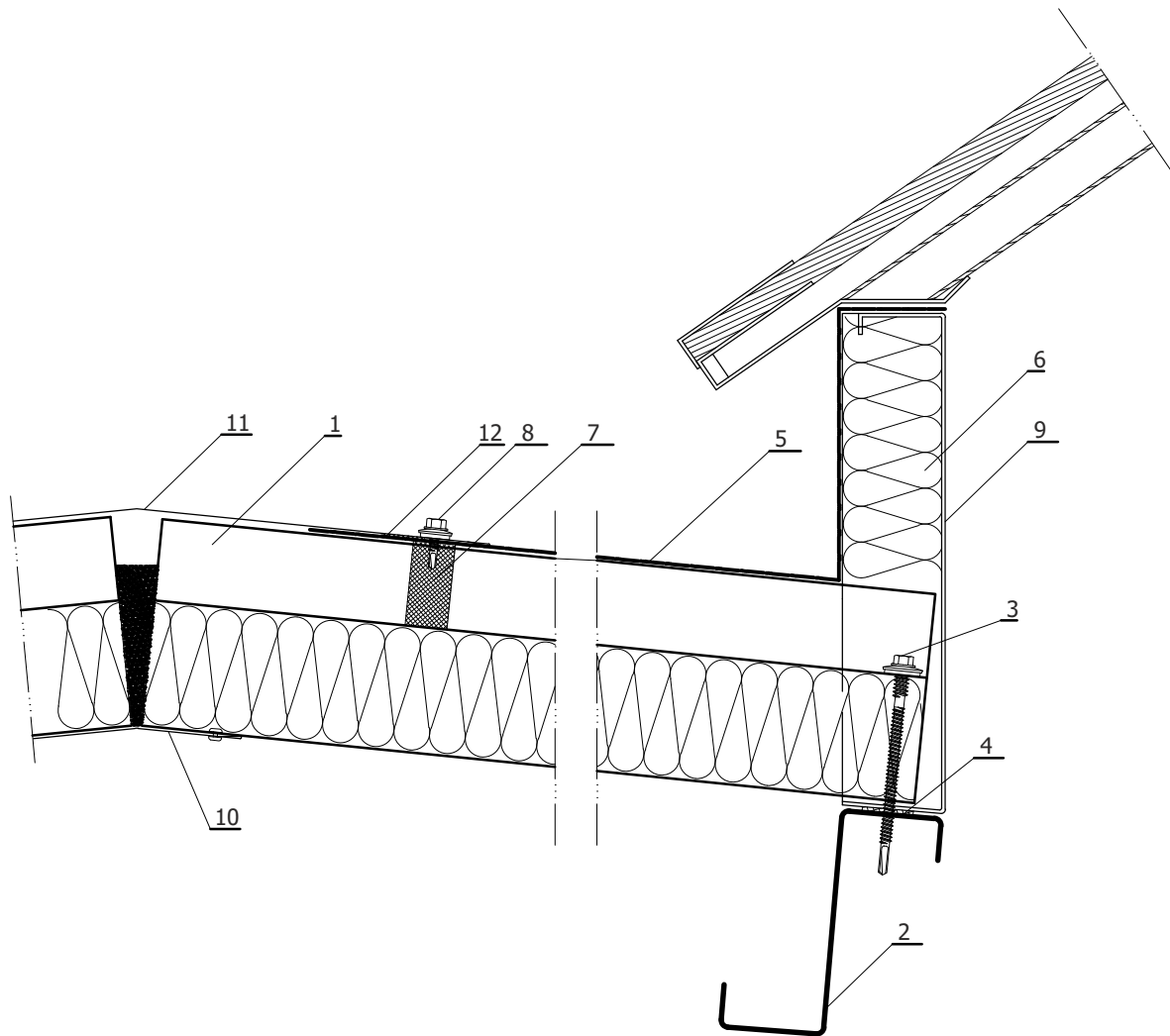


D – panel core thickness

1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape
5. Rivet 4x12mm
6. Insulation of the base of the skylight made on the building site
7. PU gasket UD42
8. Self-drilling screw for steel sheet
9. Flashing 140 (skylight base) or in accordance with individual project
10. Flashing 102
11. Flashing 146 (skylight plumage) or in accordance with individual project
12. Sealing mass for water insulation, recommended by low roof slope*

* advised solution

The joint between roof panel and arc skylight distant from the roof ridge
Horizontal section of the slope



1. Roof panel PaNELTECH PW PUR-D 1050
2. Steel structure in accordance with building project
3. Self-drilling screw
4. Polyethylene tape applied during installation
5. Water insulation – PVC membrane
6. Insulation of the base of the skylight made on the building site
7. PU gasket UD42
8. Self-drilling screw for steel sheet
9. Skylight base in accordance with individual project
10. Flashing 103
11. Flashing 101
12. Sealing mass for water insulation

LOAD BEARING TABLES FOR PW PUR-S, PW PUR-SU AND PW PUR-D PANELS

Table 13. Maximal allowable spans for uniformly distributed wind characteristic load [kN/m²] for panel PW PUR-S 40 mm and PW PIR-S 40 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group	Criteria	Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,5	-0,4	-0,3	0,3	0,4	0,5	0,6	0,8	1,0	1,2	
single-span system	I	ULS	3,05	3,34	3,73	4,31	4,72	5,28	6,10	6,10	5,28	4,72	4,31	3,73	3,34	3,05	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS	L/100	3,04	3,30	3,64	4,04	4,31	4,65	5,11	4,61	4,33	4,10	3,86	3,49	3,21	2,99
			L/150	2,49	2,69	2,94	3,27	3,49	3,74	4,00	3,42	3,24	3,10	2,97	2,76	2,55	2,36
			L/200	2,09	2,26	2,48	2,76	2,90	3,05	3,24	2,71	2,58	2,48	2,38	2,23	2,10	1,96
		II	ULS	3,05	3,34	3,73	4,31	4,72	5,28	6,10	6,10	5,28	4,72	4,31	3,73	3,34	3,05
	Joints*		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	SLS		L/100	2,99	3,21	3,49	3,86	4,10	4,33	4,61	4,61	4,33	4,10	3,86	3,49	3,21	2,99
			L/150	2,36	2,55	2,76	2,97	3,10	3,24	3,42	3,42	3,24	3,10	2,97	2,76	2,55	2,36
			L/200	1,96	2,10	2,23	2,38	2,48	2,58	2,71	2,71	2,58	2,48	2,38	2,23	2,10	1,96
	III		ULS	3,05	3,34	3,73	4,31	4,72	5,28	6,10	6,10	5,28	4,72	4,31	3,73	3,34	3,05
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
SLS		L/100	2,83	3,01	3,19	3,40	3,53	3,68	3,86	4,61	4,33	4,10	3,86	3,49	3,21	2,99	
		L/150	2,13	2,23	2,34	2,48	2,56	2,65	2,75	3,19	3,19	3,10	2,97	2,76	2,55	2,36	
		L/200	1,68	1,75	1,84	1,94	1,99	2,06	2,12	2,39	2,39	2,39	2,38	2,23	2,10	1,96	
double-span system		I	ULS	2,47	2,96	3,71	4,31	4,72	5,28	6,08	5,88	5,20	4,72	4,31	3,73	3,09	2,57
	Joints*		2 4	2 4	2 4	2 4	2 4	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
	SLS		L/100	3,66	4,02	4,50	5,15	5,59	6,16	6,94	6,94	6,16	5,59	5,15	4,50	4,02	3,66
			L/150	2,91	3,23	3,66	4,24	4,64	5,15	5,84	5,84	5,15	4,64	4,24	3,66	3,23	2,91
			L/200	2,43	2,73	3,12	3,66	4,02	4,50	5,15	4,99	4,42	3,99	3,66	3,12	2,73	2,43
	II		ULS	2,39	2,87	3,60	4,10	4,40	4,81	5,41	5,88	5,20	4,72	4,31	3,73	3,09	2,57
		Joints*	2 4	2 4	2 4	2 4	2 4	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS	L/100	3,66	4,02	4,50	5,15	5,59	6,16	6,94	6,94	6,16	5,59	5,15	4,50	4,02	3,66
			L/150	2,91	3,23	3,66	4,24	4,64	5,15	5,84	5,84	5,15	4,64	4,24	3,66	3,23	2,91
			L/200	2,43	2,73	3,12	3,66	3,99	4,42	4,99	4,99	4,42	3,99	3,66	3,12	2,73	2,43
		III	ULS	2,25	2,70	2,85	3,07	3,22	3,40	3,66	5,88	5,20	4,72	4,31	3,73	3,09	2,57
	Joints*		2 4	2 4	2 4	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
SLS	L/100		3,66	4,02	4,50	5,15	5,59	6,16	6,89	6,94	6,16	5,59	5,15	4,50	4,02	3,66	
	L/150		2,91	3,23	3,64	4,17	4,52	4,96	5,55	5,84	5,15	4,64	4,24	3,66	3,23	2,91	
	L/200		2,37	2,63	2,97	3,44	3,75	4,14	4,57	4,99	4,42	3,99	3,66	3,12	2,73	2,43	
multispan system	I		ULS	2,71	3,27	3,73	4,31	4,72	5,28	6,10	6,10	5,28	4,72	4,31	3,73	3,19	2,63
		Joints*	2 4	2 4	2 4	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS	L/100	3,54	3,87	4,30	4,89	5,29	5,81	6,52	6,49	5,81	5,29	4,89	4,30	3,87	3,54
			L/150	2,85	3,15	3,54	4,07	4,43	4,89	5,53	5,31	4,78	4,38	4,07	3,54	3,15	2,85
			L/200	2,40	2,68	3,04	3,54	3,87	4,27	4,78	4,53	4,07	3,72	3,44	3,02	2,68	2,40
		II	ULS	2,63	3,19	3,73	4,31	4,72	5,28	6,10	6,10	5,28	4,72	4,31	3,73	3,19	2,63
	Joints*		2 4	2 4	2 4	2 4	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
	SLS		L/100	3,54	3,87	4,30	4,89	5,29	5,81	6,49	6,49	5,81	5,29	4,89	4,30	3,87	3,54
			L/150	2,85	3,15	3,54	4,07	4,38	4,78	5,31	5,31	4,78	4,38	4,07	3,54	3,15	2,85
			L/200	2,40	2,68	3,02	3,44	3,72	4,07	4,53	4,53	4,07	3,72	3,44	3,02	2,68	2,40
	III		ULS	2,49	3,04	3,32	3,73	4,02	4,42	5,00	6,10	5,28	4,72	4,31	3,73	3,19	2,63
		Joints*	2 4	2 4	2 4	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
SLS		L/100	3,54	3,87	4,30	4,84	5,18	5,61	6,20	6,49	5,81	5,29	4,89	4,30	3,87	3,54	
		L/150	2,84	3,10	3,42	3,86	4,14	4,49	4,83	5,31	4,78	4,38	4,07	3,54	3,15	2,85	
		L/200	2,32	2,55	2,83	3,21	3,39	3,60	3,85	4,53	4,07	3,72	3,44	3,02	2,68	2,40	

Table 14. Maximal allowable spans for uniformly distributed wind characteristic load [kN/m²] for panel PW PUR-S 60 mm and PW PIR-S 60 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
---	---

 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group	Criteria	Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,5	-0,4	-0,3	0,3	0,4	0,5	0,6	0,8	1,0	1,2	
single-span system	I	ULS	3,74	4,10	4,58	5,29	5,79	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,74	
		Joints*	3	3	2	2	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	4,09	4,43	4,87	5,47	5,84	6,30	6,92	6,48	6,02	5,60	5,27	4,76	4,39	4,09
			L/150	3,39	3,69	4,03	4,49	4,78	5,16	5,62	4,90	4,63	4,41	4,22	3,84	3,53	3,28
			L/200	2,91	3,15	3,44	3,84	4,10	4,34	4,63	3,93	3,74	3,57	3,43	3,20	2,97	2,76
		II	ULS	3,74	4,10	4,58	5,29	5,79	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,74
	Joints*		3	3	2	2	2	2	2	2	2	2	2	2	2	2	
	SLS		L/100	4,09	4,39	4,76	5,27	5,60	6,02	6,48	6,48	6,02	5,60	5,27	4,76	4,39	4,09
			L/150	3,28	3,53	3,84	4,22	4,41	4,63	4,90	4,90	4,63	4,41	4,22	3,84	3,53	3,28
			L/200	2,76	2,97	3,20	3,43	3,57	3,74	3,93	3,93	3,74	3,57	3,43	3,20	2,97	2,76
	III		ULS	3,74	4,10	4,58	5,29	5,79	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,74
		Joints*	3	3	2	2	2	2	2	2	2	2	2	2	2	2	
SLS		L/100	3,90	4,17	4,51	4,83	5,02	5,25	5,54	6,48	6,02	5,60	5,27	4,76	4,39	4,09	
		L/150	3,05	3,20	3,38	3,59	3,71	3,86	4,02	4,80	4,63	4,41	4,22	3,84	3,53	3,28	
		L/200	2,44	2,56	2,69	2,84	2,93	3,03	3,14	3,60	3,60	3,57	3,43	3,20	2,97	2,76	
double-span system		I	ULS	2,43	2,90	3,62	4,86	5,79	6,48	7,46	7,22	6,38	5,79	5,29	4,58	3,80	3,16
	Joints*		2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	
	SLS		L/100	5,00	5,48	6,09	6,93	7,50	8,24	9,26	9,26	8,24	7,50	6,93	6,09	5,48	5,00
			L/150	4,03	4,45	5,00	5,76	6,27	6,93	7,85	7,85	6,93	6,27	5,76	5,00	4,45	4,03
			L/200	3,40	3,79	4,30	5,00	5,48	6,09	6,93	6,87	6,09	5,48	5,00	4,30	3,79	3,40
	II		ULS	2,31	2,77	3,47	4,70	5,40	5,90	6,64	7,22	6,38	5,79	5,29	4,58	3,80	3,16
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	5,00	5,48	6,09	6,93	7,50	8,24	9,26	9,26	8,24	7,50	6,93	6,09	5,48	5,00
			L/150	4,03	4,45	5,00	5,76	6,27	6,93	7,85	7,85	6,93	6,27	5,76	5,00	4,45	4,03
			L/200	3,40	3,79	4,30	5,00	5,48	6,09	6,87	6,87	6,09	5,48	5,00	4,30	3,79	3,40
		III	ULS	2,14	2,56	3,23	3,77	3,94	4,17	4,49	7,22	6,38	5,79	5,29	4,58	3,80	3,16
	Joints*		2 4	2 4	2 4	2 4	2 4	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
SLS	L/100		5,00	5,48	6,09	6,93	7,50	8,24	9,26	9,26	8,24	7,50	6,93	6,09	5,48	5,00	
	L/150		4,03	4,45	5,00	5,76	6,25	6,84	7,63	7,85	6,93	6,27	5,76	5,00	4,45	4,03	
	L/200		3,40	3,78	4,24	4,86	5,27	5,80	6,50	6,87	6,09	5,48	5,00	4,30	3,79	3,40	
multispan system	I		ULS	2,81	3,39	4,27	5,29	5,79	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,72
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	4,81	5,24	5,79	6,56	7,08	7,75	8,67	8,67	7,75	7,08	6,56	5,79	5,24	4,81
			L/150	3,92	4,31	4,81	5,50	5,96	6,56	7,39	7,24	6,52	5,96	5,50	4,81	4,31	3,92
			L/200	3,34	3,70	4,17	4,81	5,24	5,79	6,52	6,24	5,61	5,14	4,77	4,17	3,70	3,34
		II	ULS	2,75	3,33	4,21	5,29	5,79	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,72
	Joints*		2 4	2 4	2 4	2 4	2 4	2 4	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
	SLS		L/100	4,81	5,24	5,79	6,56	7,08	7,75	8,67	8,67	7,75	7,08	6,56	5,79	5,24	4,81
			L/150	3,92	4,31	4,81	5,50	5,96	6,52	7,24	7,24	6,52	5,96	5,50	4,81	4,31	3,92
			L/200	3,34	3,70	4,17	4,77	5,14	5,61	6,24	6,24	5,61	5,14	4,77	4,17	3,70	3,34
	III		ULS	2,66	3,23	4,07	4,57	4,93	5,42	6,14	7,48	6,48	5,79	5,29	4,58	4,10	3,72
		Joints*	2 4	2 4	2 4	2 4	2 4	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
SLS		L/100	4,81	5,24	5,79	6,56	7,05	7,63	8,42	8,67	7,75	7,08	6,56	5,79	5,24	4,81	
		L/150	3,92	4,31	4,75	5,33	5,72	6,20	6,85	7,24	6,52	5,96	5,50	4,81	4,31	3,92	
		L/200	3,30	3,61	3,99	4,51	4,84	5,19	5,58	6,24	5,61	5,14	4,77	4,17	3,70	3,34	

Table 15. Maximal allowable spans for uniformly distributed wind characteristic load [kN/m²] for panel PW PUR-S 80 mm and PW PIR-S 80 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group	Criteria	Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,5	-0,4	-0,3	0,3	0,4	0,5	0,6	0,8	1,0	1,2	
single-span system	I	ULS	4,32	4,74	5,29	6,11	6,70	7,49	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,32	
		Joints*	3	3	3	2	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	5,04	5,45	5,98	6,70	7,20	7,78	8,55	8,18	7,47	6,95	6,54	5,92	5,45	5,04
			L/150	4,20	4,57	5,02	5,58	5,95	6,42	7,05	6,29	5,92	5,62	5,32	4,81	4,43	4,12
			L/200	3,66	3,95	4,32	4,81	5,13	5,53	5,92	5,09	4,82	4,60	4,41	4,09	3,76	3,49
		II	ULS	4,32	4,74	5,29	6,11	6,70	7,49	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,32
	Joints*		3	3	3	2	2	2	2	2	2	2	2	2	2	2	
	SLS		L/100	5,04	5,45	5,92	6,54	6,95	7,47	8,18	8,18	7,47	6,95	6,54	5,92	5,45	5,04
			L/150	4,12	4,43	4,81	5,32	5,62	5,92	6,29	6,29	5,92	5,62	5,32	4,81	4,43	4,12
			L/200	3,49	3,76	4,09	4,41	4,60	4,82	5,09	5,09	4,82	4,60	4,41	4,09	3,76	3,49
	III		ULS	4,32	4,74	5,29	6,11	6,70	7,49	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,32
		Joints*	3	3	3	2	2	2	2	2	2	2	2	2	2	2	
SLS		L/100	4,88	5,21	5,63	6,15	6,41	6,72	7,11	8,18	7,47	6,95	6,54	5,92	5,45	5,04	
		L/150	3,89	4,12	4,35	4,63	4,80	5,00	5,24	6,29	5,92	5,62	5,32	4,81	4,43	4,12	
		L/200	3,17	3,32	3,49	3,70	3,82	3,96	4,12	4,81	4,81	4,60	4,41	4,09	3,76	3,49	
double-span system		I	ULS	2,40	2,85	3,55	4,76	5,75	7,27	8,62	8,34	7,38	6,70	6,11	5,28	4,20	3,50
	Joints*		2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	
	SLS		L/100	6,22	6,79	7,52	8,54	9,22	10,11	11,34	11,34	10,11	9,22	8,54	7,52	6,79	6,22
			L/150	5,05	5,56	6,22	7,13	7,75	8,54	9,63	9,63	8,54	7,75	7,13	6,22	5,56	5,05
			L/200	4,29	4,76	5,37	6,22	6,79	7,52	8,54	8,54	7,52	6,79	6,22	5,37	4,76	4,29
	II		ULS	2,26	2,69	3,36	4,54	5,53	6,82	7,67	8,34	7,38	6,70	6,11	5,28	4,20	3,50
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	6,22	6,79	7,52	8,54	9,22	10,11	11,34	11,34	10,11	9,22	8,54	7,52	6,79	6,22
			L/150	5,05	5,56	6,22	7,13	7,75	8,54	9,63	9,63	8,54	7,75	7,13	6,22	5,56	5,05
			L/200	4,29	4,76	5,37	6,22	6,79	7,52	8,54	8,54	7,52	6,79	6,22	5,37	4,76	4,29
		III	ULS	2,05	2,44	3,05	4,18	4,56	4,82	5,19	8,34	7,38	6,70	6,11	5,28	4,20	3,50
	Joints*		2 4	2 4	2 4	2 4	2 4	2 4	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
SLS	L/100		6,22	6,79	7,52	8,54	9,22	10,11	11,34	11,34	10,11	9,22	8,54	7,52	6,79	6,22	
	L/150		5,05	5,56	6,22	7,13	7,75	8,54	9,51	9,63	8,54	7,75	7,13	6,22	5,56	5,05	
	L/200		4,29	4,76	5,37	6,16	6,66	7,30	8,17	8,54	7,52	6,79	6,22	5,37	4,76	4,29	
multispan system	I		ULS	2,77	3,35	4,22	5,68	6,70	7,49	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,12
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	5,95	6,47	7,14	8,06	8,68	9,48	10,60	10,60	9,48	8,68	8,06	7,14	6,47	5,95
			L/150	4,89	5,35	5,95	6,78	7,34	8,06	9,05	8,98	8,06	7,34	6,78	5,95	5,35	4,89
			L/200	4,20	4,63	5,19	5,95	6,47	7,14	8,06	7,78	7,01	6,43	5,95	5,19	4,63	4,20
		II	ULS	2,69	3,26	4,13	5,59	6,70	7,49	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,12
	Joints*		2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
	SLS		L/100	5,95	6,47	7,14	8,06	8,68	9,48	10,60	10,60	9,48	8,68	8,06	7,14	6,47	5,95
			L/150	4,89	5,35	5,95	6,78	7,34	8,06	8,98	8,98	8,06	7,34	6,78	5,95	5,35	4,89
			L/200	4,20	4,63	5,19	5,95	6,43	7,01	7,78	7,78	7,01	6,43	5,95	5,19	4,63	4,20
	III		ULS	2,57	3,13	4,00	5,29	5,70	6,26	7,10	8,65	7,49	6,70	6,11	5,29	4,74	4,12
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
SLS		L/100	5,95	6,47	7,14	8,06	8,68	9,45	10,43	10,60	9,48	8,68	8,06	7,14	6,47	5,95	
		L/150	4,89	5,35	5,95	6,67	7,15	7,75	8,55	8,98	8,06	7,34	6,78	5,95	5,35	4,89	
		L/200	4,20	4,58	5,05	5,69	6,10	6,63	7,17	7,78	7,01	6,43	5,95	5,19	4,63	4,20	

Table 16. Maximal allowable spans for uniformly distributed wind characteristic load [kN/m²] for panel PW PUR-S 100 mm and PW PIR-S 100 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group	Criteria	Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,5	-0,4	-0,3	0,3	0,4	0,5	0,6	0,8	1,0	1,2	
single-span system	I	ULS	4,84	5,30	5,92	6,84	7,49	8,38	9,68	9,68	8,38	7,49	6,84	5,92	5,30	4,84	
		Joints*	3	3	3	3	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	5,92	6,39	7,00	7,84	8,41	9,15	10,06	9,66	8,82	8,20	7,72	6,99	6,39	5,92
		L/150	4,95	5,38	5,92	6,60	7,04	7,59	8,34	7,60	7,13	6,72	6,32	5,71	5,26	4,90	
	L/200	4,33	4,70	5,13	5,71	6,09	6,57	7,13	6,20	5,86	5,58	5,34	4,88	4,49	4,18		
	II	ULS	4,84	5,30	5,92	6,84	7,49	8,38	9,68	9,68	8,38	7,49	6,84	5,92	5,30	4,84	
		Joints*	3	3	3	3	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	5,92	6,39	6,99	7,72	8,20	8,82	9,66	9,66	8,82	8,20	7,72	6,99	6,39	5,92
		L/150	4,90	5,26	5,71	6,32	6,72	7,13	7,60	7,60	7,13	6,72	6,32	5,71	5,26	4,90	
	L/200	4,18	4,49	4,88	5,34	5,58	5,86	6,20	6,20	5,86	5,58	5,34	4,88	4,49	4,18		
	III	ULS	4,84	5,30	5,92	6,84	7,49	8,38	9,68	9,68	8,38	7,49	6,84	5,92	5,30	4,84	
		Joints*	3	3	3	3	2	2	2	2	2	2	2	2	2	2	
SLS		L/100	5,79	6,18	6,68	7,34	7,71	8,11	8,60	9,66	8,82	8,20	7,72	6,99	6,39	5,92	
L/150		4,65	4,97	5,27	5,63	5,84	6,10	6,40	7,60	7,13	6,72	6,32	5,71	5,26	4,90		
L/200	3,86	4,05	4,27	4,53	4,69	4,87	5,07	6,03	5,86	5,58	5,34	4,88	4,49	4,18			
double-span system	I	ULS	2,37	2,80	3,48	4,66	5,64	7,14	9,65	9,33	8,25	7,49	6,84	5,80	4,61	3,84	
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	7,35	8,01	8,85	10,02	10,81	11,83	13,25	13,25	11,83	10,81	10,02	8,85	8,01	7,35
		L/150	6,00	6,59	7,35	8,40	9,11	10,02	11,29	11,29	10,02	9,11	8,40	7,35	6,59	6,00	
	L/200	5,12	5,67	6,37	7,35	8,01	8,85	10,02	10,02	8,85	8,01	7,35	6,37	5,67	5,12		
	II	ULS	2,22	2,62	3,26	4,39	5,35	6,85	8,58	9,33	8,25	7,49	6,84	5,80	4,61	3,84	
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	7,35	8,01	8,85	10,02	10,81	11,83	13,25	13,25	11,83	10,81	10,02	8,85	8,01	7,35
		L/150	6,00	6,59	7,35	8,40	9,11	10,02	11,29	11,29	10,02	9,11	8,40	7,35	6,59	6,00	
	L/200	5,12	5,67	6,37	7,35	8,01	8,85	10,02	10,02	8,85	8,01	7,35	6,37	5,67	5,12		
	III	ULS	1,99	2,34	2,90	3,95	4,88	5,40	5,81	9,33	8,25	7,49	6,84	5,80	4,61	3,84	
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
SLS		L/100	7,35	8,01	8,85	10,02	10,81	11,83	13,25	13,25	11,83	10,81	10,02	8,85	8,01	7,35	
L/150		6,00	6,59	7,35	8,40	9,11	10,02	11,26	11,29	10,02	9,11	8,40	7,35	6,59	6,00		
L/200	5,12	5,67	6,37	7,35	7,95	8,70	9,72	10,02	8,85	8,01	7,35	6,37	5,67	5,12			
multispan system	I	ULS	2,74	3,30	4,17	5,63	6,80	8,38	9,68	9,68	8,38	7,49	6,84	5,92	5,30	4,53	
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	7,02	7,61	8,38	9,44	10,16	11,09	12,38	12,38	11,09	10,16	9,44	8,38	7,61	7,02
		L/150	5,79	6,33	7,02	7,97	8,61	9,44	10,59	10,59	9,44	8,61	7,97	7,02	6,33	5,79	
	L/200	4,99	5,49	6,13	7,02	7,61	8,38	9,44	9,22	8,31	7,61	7,02	6,13	5,49	4,99		
	II	ULS	2,64	3,20	4,06	5,51	6,69	8,38	9,68	9,68	8,38	7,49	6,84	5,92	5,30	4,53	
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	7,02	7,61	8,38	9,44	10,16	11,09	12,38	12,38	11,09	10,16	9,44	8,38	7,61	7,02
		L/150	5,79	6,33	7,02	7,97	8,61	9,44	10,59	10,59	9,44	8,61	7,97	7,02	6,33	5,79	
	L/200	4,99	5,49	6,13	7,02	7,61	8,31	9,22	9,22	8,31	7,61	7,02	6,13	5,49	4,99		
	III	ULS	2,49	3,04	3,89	5,34	6,38	7,01	7,94	9,68	8,38	7,49	6,84	5,92	5,30	4,53	
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
SLS		L/100	7,02	7,61	8,38	9,44	10,16	11,09	12,29	12,38	11,09	10,16	9,44	8,38	7,61	7,02	
L/150		5,79	6,33	7,02	7,92	8,47	9,18	10,13	10,59	9,44	8,61	7,97	7,02	6,33	5,79		
L/200	4,99	5,48	6,04	6,78	7,27	7,89	8,68	9,22	8,31	7,61	7,02	6,13	5,49	4,99			

Table 17. Maximal allowable spans for uniformly distributed wind characteristic load [kN/m²] for panel PW PUR-S 120 mm and PW PIR-S 120 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group		Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,5	-0,4	-0,3	0,3	0,4	0,5	0,6	0,8	1,0	1,2	
single-span system	I	ULS	4,87	5,81	6,49	7,50	8,21	9,18	10,61	10,61	9,18	8,21	7,50	6,49	5,81	5,30	
		Joints*	3	3	3	3	3	2	2	2	2	2	2	2	2	2	
		SLS	L/100	6,74	7,27	7,95	8,90	9,54	10,37	11,48	11,05	10,09	9,38	8,83	7,95	7,27	6,74
			L/150	5,66	6,13	6,74	7,56	8,06	8,69	9,55	8,85	8,29	7,71	7,26	6,56	6,05	5,64
			L/200	4,96	5,40	5,90	6,56	7,00	7,55	8,29	7,27	6,85	6,51	6,23	5,64	5,18	4,83
		II	ULS	4,87	5,81	6,49	7,50	8,21	9,18	10,61	10,61	9,18	8,21	7,50	6,49	5,81	5,30
	Joints*		3	3	3	3	3	2	2	2	2	2	2	2	2	2	
	SLS		L/100	6,74	7,27	7,95	8,83	9,38	10,09	11,05	11,05	10,09	9,38	8,83	7,95	7,27	6,74
			L/150	5,64	6,05	6,56	7,26	7,71	8,29	8,85	8,85	8,29	7,71	7,26	6,56	6,05	5,64
			L/200	4,83	5,18	5,64	6,23	6,51	6,85	7,27	7,27	6,85	6,51	6,23	5,64	5,18	4,83
	III		ULS	4,87	5,81	6,49	7,50	8,21	9,18	10,61	10,61	9,18	8,21	7,50	6,49	5,81	5,30
		Joints*	3	3	3	3	3	2	2	2	2	2	2	2	2	2	
SLS		L/100	6,65	7,09	7,66	8,42	8,93	9,43	10,02	11,05	10,09	9,38	8,83	7,95	7,27	6,74	
		L/150	5,36	5,73	6,15	6,58	6,84	7,15	7,52	8,85	8,29	7,71	7,26	6,56	6,05	5,64	
		L/200	4,53	4,75	5,01	5,33	5,52	5,74	6,00	7,24	6,85	6,51	6,23	5,64	5,18	4,83	
double-span system		I	ULS	2,35	2,77	3,42	4,57	5,53	7,01	9,55	10,23	9,04	8,21	7,50	5,73	4,56	3,80
	Joints*		2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
	SLS		L/100	8,41	9,15	10,10	11,41	12,30	13,45	15,04	15,04	13,45	12,30	11,41	10,10	9,15	8,41
			L/150	6,89	7,56	8,41	9,59	10,39	11,41	12,83	12,83	11,41	10,39	9,59	8,41	7,56	6,89
			L/200	5,91	6,53	7,32	8,41	9,15	10,10	11,41	11,41	10,10	9,15	8,41	7,32	6,53	5,91
	II		ULS	2,18	2,77	3,42	4,57	5,53	7,01	9,55	10,23	9,04	8,21	7,50	5,73	4,56	3,80
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	8,41	9,15	10,10	11,41	12,30	13,45	15,04	15,04	13,45	12,30	11,41	10,10	9,15	8,41
			L/150	6,89	7,56	8,41	9,59	10,39	11,37	12,62	12,83	11,41	10,39	9,59	8,41	7,56	6,89
			L/200	5,91	6,53	7,32	8,41	9,15	10,10	11,41	11,41	10,10	9,15	8,41	7,32	6,53	5,91
		III	ULS	1,95	2,27	2,78	3,74	4,61	5,91	6,36	10,23	9,04	8,21	7,50	5,73	4,56	3,80
	Joints*		2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 3	
SLS	L/100		8,41	9,15	10,10	11,41	12,30	13,45	15,04	15,04	13,45	12,30	11,41	10,10	9,15	8,41	
	L/150		6,89	7,56	8,41	9,59	10,39	11,41	12,83	12,83	11,41	10,39	9,59	8,41	7,56	6,89	
	L/200		5,91	6,53	7,32	8,41	9,15	10,02	11,18	11,41	10,10	9,15	8,41	7,32	6,53	5,91	
multispan system	I		ULS	2,70	3,26	4,12	5,57	6,74	8,51	10,61	10,61	9,18	8,21	7,50	6,49	5,44	4,50
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
		SLS	L/100	8,01	8,68	9,54	10,74	11,54	12,59	14,04	14,04	12,59	11,54	10,74	9,54	8,68	8,01
			L/150	6,64	7,24	8,01	9,08	9,80	10,74	12,03	12,03	10,74	9,80	9,08	8,01	7,24	6,64
			L/200	5,74	6,30	7,02	8,01	8,68	9,54	10,74	10,57	9,53	8,68	8,01	7,02	6,30	5,74
		II	ULS	2,59	3,14	3,99	5,44	6,61	8,37	10,61	10,61	9,18	8,21	7,50	6,49	5,44	4,50
	Joints*		2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
	SLS		L/100	8,01	8,68	9,54	10,74	11,54	12,59	14,04	14,04	12,59	11,54	10,74	9,54	8,68	8,01
			L/150	6,64	7,24	8,01	9,08	9,80	10,74	12,03	12,03	10,74	9,80	9,08	8,01	7,24	6,64
			L/200	5,74	6,30	7,02	8,01	8,68	9,53	10,57	10,57	9,53	8,68	8,01	7,02	6,30	5,74
	III		ULS	2,41	2,95	3,78	5,22	6,39	7,68	8,70	10,61	9,18	8,21	7,50	6,49	5,44	4,50
		Joints*	2 4	2 4	2 4	2 4	2 4	2 4	2 4	2 2	2 2	2 2	2 2	2 2	2 2	2 2	
SLS		L/100	8,01	8,68	9,54	10,74	11,54	12,59	14,04	14,04	12,59	11,54	10,74	9,54	8,68	8,01	
		L/150	6,64	7,24	8,01	9,08	9,72	10,53	11,62	12,03	10,74	9,80	9,08	8,01	7,24	6,64	
		L/200	5,74	6,30	6,97	7,82	8,38	9,09	10,04	10,57	9,53	8,68	8,01	7,02	6,30	5,74	

Table 18. Maximal allowable spans for uniformly distributed wind characteristic load [kN/m²] for panel PW PUR-SU 60 mm and PW PIR-SU 60 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Number of joints required on the extreme support: 2
 Number of joints required on the middle support: 2

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group	Criteria	Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,5	-0,4	-0,3	0,3	0,4	0,5	0,6	0,8	1,0	1,2	
single-span system	I	ULS	3,74	4,10	4,58	5,29	5,79	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,74	
		SLS	L/100	4,09	4,43	4,87	5,47	5,84	6,30	6,92	6,48	6,02	5,60	5,27	4,76	4,39	4,09
			L/150	2,91	3,15	3,44	3,84	4,10	4,34	4,63	3,93	3,74	3,57	3,43	3,20	2,97	2,76
			L/200	2,91	3,15	3,44	3,84	4,10	4,34	4,63	3,93	3,74	3,57	3,43	3,20	2,97	2,76
	II	ULS	3,74	4,10	4,58	5,29	5,79	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,74	
		SLS	L/100	4,09	4,39	4,76	5,27	5,60	6,02	6,48	6,48	6,02	5,60	5,27	4,76	4,39	4,09
			L/150	3,28	3,53	3,84	4,22	4,41	4,63	4,90	4,90	4,63	4,41	4,22	3,84	3,53	3,28
			L/200	2,76	2,97	3,20	3,43	3,57	3,74	3,93	3,93	3,74	3,57	3,43	3,20	2,97	2,76
	III	ULS	3,74	4,10	4,58	5,29	5,79	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,74	
		SLS	L/100	3,90	4,17	4,51	4,83	5,02	5,25	5,54	6,48	6,02	5,60	5,27	4,76	4,39	4,09
			L/150	3,05	3,20	3,38	3,59	3,71	3,86	4,02	4,80	4,63	4,41	4,22	3,84	3,53	3,28
			L/200	2,44	2,56	2,69	2,84	2,93	3,03	3,14	3,60	3,60	3,57	3,43	3,20	2,97	2,76
double-span system	I	ULS	1,89	2,24	2,78	3,73	4,51	5,71	7,46	7,22	6,38	5,79	5,29	4,58	3,80	3,16	
		SLS	L/100	5,00	5,48	6,09	6,93	7,50	8,24	9,26	9,26	8,24	7,50	6,93	6,09	5,48	5,00
			L/150	4,03	4,45	5,00	5,76	6,27	6,93	7,85	7,85	6,93	6,27	5,76	5,00	4,45	4,03
			L/200	3,40	3,79	4,30	5,00	5,48	6,09	6,93	6,87	6,09	5,48	5,00	4,30	3,79	3,40
	II	ULS	1,77	2,10	2,61	3,52	4,30	5,49	6,64	7,22	6,38	5,79	5,29	4,58	3,80	3,16	
		SLS	L/100	5,00	5,48	6,09	6,93	7,50	8,24	9,26	9,26	8,24	7,50	6,93	6,09	5,48	5,00
			L/150	4,03	4,45	5,00	5,76	6,27	6,93	7,85	7,85	6,93	6,27	5,76	5,00	4,45	4,03
			L/200	3,40	3,79	4,30	5,00	5,48	6,09	6,87	6,87	6,09	5,48	5,00	4,30	3,79	3,40
	III	ULS	1,60	1,88	2,34	3,19	3,94	4,17	4,49	7,22	6,38	5,79	5,29	4,58	3,80	3,16	
		SLS	L/100	5,00	5,48	6,09	6,93	7,50	8,24	9,26	9,26	8,24	7,50	6,93	6,09	5,48	5,00
			L/150	4,03	4,45	5,00	5,76	6,25	6,84	7,63	7,85	6,93	6,27	5,76	5,00	4,45	4,03
			L/200	3,40	3,78	4,24	4,86	5,27	5,80	6,50	6,87	6,09	5,48	5,00	4,30	3,79	3,40
multispan system	I	ULS	2,18	2,64	3,33	4,49	5,42	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,72	
		SLS	L/100	4,81	5,24	5,79	6,56	7,08	7,75	8,67	8,67	7,75	7,08	6,56	5,79	5,24	4,81
			L/150	3,92	4,31	4,81	5,50	5,96	6,56	7,39	7,24	6,52	5,96	5,50	4,81	4,31	3,92
			L/200	3,34	3,70	4,17	4,81	5,24	5,79	6,52	6,24	5,61	5,14	4,77	4,17	3,70	3,34
	II	ULS	2,11	2,56	3,24	4,40	5,34	6,48	7,48	7,48	6,48	5,79	5,29	4,58	4,10	3,72	
		SLS	L/100	4,81	5,24	5,79	6,56	7,08	7,75	8,67	8,67	7,75	7,08	6,56	5,79	5,24	4,81
			L/150	3,92	4,31	4,81	5,50	5,96	6,52	7,24	7,24	6,52	5,96	5,50	4,81	4,31	3,92
			L/200	3,34	3,70	4,17	4,77	5,14	5,61	6,24	6,24	5,61	5,14	4,77	4,17	3,70	3,34
	III	ULS	2,00	2,43	3,11	4,27	4,93	5,42	6,14	7,48	6,48	5,79	5,29	4,58	4,10	3,72	
		SLS	L/100	4,81	5,24	5,79	6,56	7,05	7,63	8,42	8,67	7,75	7,08	6,56	5,79	5,24	4,81
			L/150	3,92	4,31	4,75	5,33	5,72	6,20	6,85	7,24	6,52	5,96	5,50	4,81	4,31	3,92
			L/200	3,30	3,61	3,99	4,51	4,84	5,19	5,58	6,24	5,61	5,14	4,77	4,17	3,70	3,34

Table 19. Maximal allowable spans for uniformly distributed wind characteristic load [kN/m²] for panel PW PUR-SU 80 mm and PW PIR-SU 80 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Number of joints required on the extreme support: 2
 Number of joints required on the middle support: 2

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group	Characterictis loading [kN/m ²]															
		-1,2	-1,0	-0,8	-0,6	-0,5	-0,4	-0,3	0,3	0,4	0,5	0,6	0,8	1,0	1,2		
single-span system	I	ULS	4,32	4,74	5,29	6,11	6,70	7,49	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,32	
		SLS	L/100	5,04	5,45	5,98	6,70	7,20	7,78	8,55	8,18	7,47	6,95	6,54	5,92	5,45	5,04
			L/150	4,20	4,57	5,02	5,58	5,95	6,42	7,05	6,29	5,92	5,62	5,32	4,81	4,43	4,12
			L/200	3,66	3,95	4,32	4,81	5,13	5,53	5,92	5,09	4,82	4,60	4,41	4,09	3,76	3,49
		II	ULS	4,32	4,74	5,29	6,11	6,70	7,49	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,32
			SLS	L/100	5,04	5,45	5,92	6,54	6,95	7,47	8,18	8,18	7,47	6,95	6,54	5,92	5,45
	L/150			4,12	4,43	4,81	5,32	5,62	5,92	6,29	6,29	5,92	5,62	5,32	4,81	4,43	4,12
	L/200			3,49	3,76	4,09	4,41	4,60	4,82	5,09	5,09	4,82	4,60	4,41	4,09	3,76	3,49
	III		ULS	4,32	4,74	5,29	6,11	6,70	7,49	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,32
			SLS	L/100	4,88	5,21	5,63	6,15	6,41	6,72	7,11	8,18	7,47	6,95	6,54	5,92	5,45
		L/150		3,89	4,12	4,35	4,63	4,80	5,00	5,24	6,29	5,92	5,62	5,32	4,81	4,43	4,12
		L/200		3,17	3,32	3,49	3,70	3,82	3,96	4,12	4,81	4,81	4,60	4,41	4,09	3,76	3,49
double-span system		I	ULS	1,86	2,19	2,71	3,61	4,37	5,55	7,56	8,34	7,38	6,70	6,11	5,28	4,20	3,50
			SLS	L/100	6,22	6,79	7,52	8,54	9,22	10,11	11,34	11,34	10,11	9,22	8,54	7,52	6,79
	L/150			5,05	5,56	6,22	7,13	7,75	8,54	9,63	9,63	8,54	7,75	7,13	6,22	5,56	5,05
	L/200			4,29	4,76	5,37	6,22	6,79	7,52	8,54	8,54	7,52	6,79	6,22	5,37	4,76	4,29
	II		ULS	1,73	2,03	2,50	3,35	4,08	5,24	7,25	8,34	7,38	6,70	6,11	5,28	4,20	3,50
			SLS	L/100	6,22	6,79	7,52	8,54	9,22	10,11	11,34	11,34	10,11	9,22	8,54	7,52	6,79
		L/150		5,05	5,56	6,22	7,13	7,75	8,54	9,63	9,63	8,54	7,75	7,13	6,22	5,56	5,05
		L/200		4,29	4,76	5,37	6,22	6,79	7,52	8,54	8,54	7,52	6,79	6,22	5,37	4,76	4,29
		III	ULS	1,54	1,79	2,18	2,92	3,60	4,72	5,19	8,34	7,38	6,70	6,11	5,28	4,20	3,50
			SLS	L/100	6,22	6,79	7,52	8,54	9,22	10,11	11,34	11,34	10,11	9,22	8,54	7,52	6,79
	L/150			5,05	5,56	6,22	7,13	7,75	8,54	9,51	9,63	8,54	7,75	7,13	6,22	5,56	5,05
	L/200			4,29	4,76	5,37	6,16	6,66	7,30	8,17	8,54	7,52	6,79	6,22	5,37	4,76	4,29
multispan system	I		ULS	2,14	2,58	3,26	4,42	5,35	6,75	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,12
			SLS	L/100	5,95	6,47	7,14	8,06	8,68	9,48	10,60	10,60	9,48	8,68	8,06	7,14	6,47
		L/150		4,89	5,35	5,95	6,78	7,34	8,06	9,05	8,98	8,06	7,34	6,78	5,95	5,35	4,89
		L/200		4,20	4,63	5,19	5,95	6,47	7,14	8,06	7,78	7,01	6,43	5,95	5,19	4,63	4,20
		II	ULS	2,05	2,48	3,15	4,30	5,23	6,64	8,65	8,65	7,49	6,70	6,11	5,29	4,74	4,12
			SLS	L/100	5,95	6,47	7,14	8,06	8,68	9,48	10,60	10,60	9,48	8,68	8,06	7,14	6,47
	L/150			4,89	5,35	5,95	6,78	7,34	8,06	8,98	8,98	8,06	7,34	6,78	5,95	5,35	4,89
	L/200			4,20	4,63	5,19	5,95	6,43	7,01	7,78	7,78	7,01	6,43	5,95	5,19	4,63	4,20
	III		ULS	1,90	2,32	2,98	4,12	5,05	6,26	7,10	8,65	7,49	6,70	6,11	5,29	4,74	4,12
			SLS	L/100	5,95	6,47	7,14	8,06	8,68	9,45	10,43	10,60	9,48	8,68	8,06	7,14	6,47
		L/150		4,89	5,35	5,95	6,67	7,15	7,75	8,55	8,98	8,06	7,34	6,78	5,95	5,35	4,89
		L/200		4,20	4,58	5,05	5,69	6,10	6,63	7,17	7,78	7,01	6,43	5,95	5,19	4,63	4,20

Table 20. Maximal allowable spans for uniformly distributed wind characteristic load [kN/m²] for panel PW PUR-SU 100 mm and PW PIR-SU 100 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Number of joints required on the extreme support: 2
 Number of joints required on the middle support: 2

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group		Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,5	-0,4	-0,3	0,3	0,4	0,5	0,6	0,8	1,0	1,2	
single-span system	I	ULS	4,84	5,30	5,92	6,84	7,49	8,38	9,68	9,68	8,38	7,49	6,84	5,92	5,30	4,84	
		SLS	L/100	5,92	6,39	7,00	7,84	8,41	9,15	10,06	9,66	8,82	8,20	7,72	6,99	6,39	5,92
			L/150	4,95	5,38	5,92	6,60	7,04	7,59	8,34	7,60	7,13	6,72	6,32	5,71	5,26	4,90
			L/200	4,33	4,70	5,13	5,71	6,09	6,57	7,13	6,20	5,86	5,58	5,34	4,88	4,49	4,18
	II	ULS	4,84	5,30	5,92	6,84	7,49	8,38	9,68	9,68	8,38	7,49	6,84	5,92	5,30	4,84	
		SLS	L/100	5,92	6,39	6,99	7,72	8,20	8,82	9,66	9,66	8,82	8,20	7,72	6,99	6,39	5,92
			L/150	4,90	5,26	5,71	6,32	6,72	7,13	7,60	7,60	7,13	6,72	6,32	5,71	5,26	4,90
			L/200	4,18	4,49	4,88	5,34	5,58	5,86	6,20	6,20	5,86	5,58	5,34	4,88	4,49	4,18
	III	ULS	4,84	5,30	5,92	6,84	7,49	8,38	9,68	9,68	8,38	7,49	6,84	5,92	5,30	4,84	
		SLS	L/100	5,79	6,18	6,68	7,34	7,71	8,11	8,60	9,66	8,82	8,20	7,72	6,99	6,39	5,92
			L/150	4,65	4,97	5,27	5,63	5,84	6,10	6,40	7,60	7,13	6,72	6,32	5,71	5,26	4,90
			L/200	3,86	4,05	4,27	4,53	4,69	4,87	5,07	6,03	5,86	5,58	5,34	4,88	4,49	4,18
double-span system	I	ULS	1,84	2,16	2,65	3,51	4,24	5,39	7,38	9,33	8,25	7,49	6,84	5,80	4,61	3,84	
		SLS	L/100	7,35	8,01	8,85	10,02	10,81	11,83	13,25	13,25	11,83	10,81	10,02	8,85	8,01	7,35
			L/150	6,00	6,59	7,35	8,40	9,11	10,02	11,29	11,29	10,02	9,11	8,40	7,35	6,59	6,00
			L/200	5,12	5,67	6,37	7,35	8,01	8,85	10,02	10,02	8,85	8,01	7,35	6,37	5,67	5,12
	II	ULS	1,70	1,98	2,42	3,20	3,89	5,00	6,98	9,33	8,25	7,49	6,84	5,80	4,61	3,84	
		SLS	L/100	7,35	8,01	8,85	10,02	10,81	11,83	13,25	13,25	11,83	10,81	10,02	8,85	8,01	7,35
			L/150	6,00	6,59	7,35	8,40	9,11	10,02	11,29	11,29	10,02	9,11	8,40	7,35	6,59	6,00
			L/200	5,12	5,67	6,37	7,35	8,01	8,85	10,02	10,02	8,85	8,01	7,35	6,37	5,67	5,12
	III	ULS	1,50	1,68	1,95	2,49	3,25	4,33	5,81	9,33	8,25	7,49	6,84	5,80	4,61	3,84	
		SLS	L/100	7,35	8,01	8,85	10,02	10,81	11,83	13,25	13,25	11,83	10,81	10,02	8,85	8,01	7,35
			L/150	6,00	6,59	7,35	8,40	9,11	10,02	11,26	11,29	10,02	9,11	8,40	7,35	6,59	6,00
			L/200	5,12	5,67	6,37	7,35	7,95	8,70	9,72	10,02	8,85	8,01	7,35	6,37	5,67	5,12
multispan system	I	ULS	2,10	2,54	3,21	4,35	5,27	6,67	9,02	9,68	8,38	7,49	6,84	5,92	5,30	4,53	
		SLS	L/100	7,02	7,61	8,38	9,44	10,16	11,09	12,38	12,38	11,09	10,16	9,44	8,38	7,61	7,02
			L/150	5,79	6,33	7,02	7,97	8,61	9,44	10,59	10,59	9,44	8,61	7,97	7,02	6,33	5,79
			L/200	4,99	5,49	6,13	7,02	7,61	8,38	9,44	9,22	8,31	7,61	7,02	6,13	5,49	4,99
	II	ULS	1,99	2,41	3,07	4,20	5,13	6,53	8,87	9,68	8,38	7,49	6,84	5,92	5,30	4,53	
		SLS	L/100	7,02	7,61	8,38	9,44	10,16	11,09	12,38	12,38	11,09	10,16	9,44	8,38	7,61	7,02
			L/150	5,79	6,33	7,02	7,97	8,61	9,44	10,59	10,59	9,44	8,61	7,97	7,02	6,33	5,79
			L/200	4,99	5,49	6,13	7,02	7,61	8,31	9,22	9,22	8,31	7,61	7,02	6,13	5,49	4,99
	III	ULS	1,83	2,22	2,85	3,97	4,90	6,30	7,94	9,68	8,38	7,49	6,84	5,92	5,30	4,53	
		SLS	L/100	7,02	7,61	8,38	9,44	10,16	11,09	12,29	12,38	11,09	10,16	9,44	8,38	7,61	7,02
			L/150	5,79	6,33	7,02	7,92	8,47	9,18	10,13	10,59	9,44	8,61	7,97	7,02	6,33	5,79
			L/200	4,99	5,48	6,04	6,78	7,27	7,89	8,68	9,22	8,31	7,61	7,02	6,13	5,49	4,99

Table 21. Maximal allowable spans for uniformly distributed wind characteristic load [kN/m²] for panel PW PUR-SU 120 mm and PW PIR-SU 120 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group		Characteristic loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,5	-0,4	-0,3	0,3	0,4	0,5	0,6	0,8	1,0	1,2	
single-span system	I	ULS	5,30	5,81	6,49	7,50	8,21	9,18	10,61	10,61	9,18	8,21	7,50	6,49	5,81	5,30	
		Joints*	3	2	2	2	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	6,74	7,27	7,95	8,90	9,54	10,37	11,48	11,05	10,09	9,38	8,83	7,95	7,27	6,74
			L/150	5,66	6,13	6,74	7,56	8,06	8,69	9,55	8,85	8,29	7,71	7,26	6,56	6,05	5,64
	L/200	4,96	5,40	5,90	6,56	7,00	7,55	8,29	7,27	6,85	6,51	6,23	5,64	5,18	4,83		
	II	ULS	5,30	5,81	6,49	7,50	8,21	9,18	10,61	10,61	9,18	8,21	7,50	6,49	5,81	5,30	
		Joints*	3	2	2	2	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	6,74	7,27	7,95	8,83	9,38	10,09	11,05	11,05	10,09	9,38	8,83	7,95	7,27	6,74
			L/150	5,64	6,05	6,56	7,26	7,71	8,29	8,85	8,85	8,29	7,71	7,26	6,56	6,05	5,64
	L/200	4,83	5,18	5,64	6,23	6,51	6,85	7,27	7,27	6,85	6,51	6,23	5,64	5,18	4,83		
	III	ULS	5,30	5,81	6,49	7,50	8,21	9,18	10,61	10,61	9,18	8,21	7,50	6,49	5,81	5,30	
		Joints*	3	2	2	2	2	2	2	2	2	2	2	2	2	2	
SLS		L/100	6,65	7,09	7,66	8,42	8,93	9,43	10,02	11,05	10,09	9,38	8,83	7,95	7,27	6,74	
		L/150	5,36	5,73	6,15	6,58	6,84	7,15	7,52	8,85	8,29	7,71	7,26	6,56	6,05	5,64	
L/200	4,53	4,75	5,01	5,33	5,52	5,74	6,00	7,24	6,85	6,51	6,23	5,64	5,18	4,83			
double-span system	I	ULS	1,83	2,13	2,60	3,42	4,12	5,23	7,19	10,23	9,04	8,21	7,50	5,73	4,56	3,80	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	8,41	9,15	10,10	11,41	12,30	13,45	15,04	15,04	13,45	12,30	11,41	10,10	9,15	8,41
			L/150	6,89	7,56	8,41	9,59	10,39	11,41	12,83	12,83	11,41	10,39	9,59	8,41	7,56	6,89
	L/200	5,91	6,53	7,32	8,41	9,15	10,10	11,41	11,41	10,10	9,15	8,41	7,32	6,53	5,91		
	II	ULS	1,68	1,94	2,35	3,07	3,71	4,77	6,69	10,23	9,04	8,21	7,50	5,73	4,56	3,80	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	8,41	9,15	10,10	11,41	12,30	13,45	15,04	15,04	13,45	12,30	11,41	10,10	9,15	8,41
			L/150	6,89	7,56	8,41	9,59	10,39	11,41	12,83	12,83	11,41	10,39	9,59	8,41	7,56	6,89
	L/200	5,91	6,53	7,32	8,41	9,15	10,10	11,41	11,41	10,10	9,15	8,41	7,32	6,53	5,91		
	III	ULS	1,45	1,59	1,78	2,11	2,41	3,15	5,79	10,23	9,04	8,21	7,50	5,73	4,56	3,80	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
SLS		L/100	8,41	9,15	10,10	11,41	12,30	13,45	15,04	15,04	13,45	12,30	11,41	10,10	9,15	8,41	
		L/150	6,89	7,56	8,41	9,59	10,39	11,41	12,83	12,83	11,41	10,39	9,59	8,41	7,56	6,89	
L/200	5,91	6,53	7,32	8,41	9,15	10,02	11,18	11,41	10,10	9,15	8,41	7,32	6,53	5,91			
multispan system	I	ULS	2,07	2,49	3,15	4,28	5,20	6,60	8,94	10,61	9,18	8,21	7,50	6,49	5,44	4,50	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	8,01	8,68	9,54	10,74	11,54	12,59	14,04	14,04	12,59	11,54	10,74	9,54	8,68	8,01
			L/150	6,64	7,24	8,01	9,08	9,80	10,74	12,03	12,03	10,74	9,80	9,08	8,01	7,24	6,64
	L/200	5,74	6,30	7,02	8,01	8,68	9,54	10,74	10,57	9,53	8,68	8,01	7,02	6,30	5,74		
	II	ULS	1,95	2,35	2,99	4,11	5,02	6,42	8,76	10,61	9,18	8,21	7,50	6,49	5,44	4,50	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
		SLS	L/100	8,01	8,68	9,54	10,74	11,54	12,59	14,04	14,04	12,59	11,54	10,74	9,54	8,68	8,01
			L/150	6,64	7,24	8,01	9,08	9,80	10,74	12,03	12,03	10,74	9,80	9,08	8,01	7,24	6,64
	L/200	5,74	6,30	7,02	8,01	8,68	9,53	10,57	10,57	9,53	8,68	8,01	7,02	6,30	5,74		
	III	ULS	1,76	2,13	2,73	3,82	4,74	6,13	8,48	10,61	9,18	8,21	7,50	6,49	5,44	4,50	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
SLS		L/100	8,01	8,68	9,54	10,74	11,54	12,59	14,04	14,04	12,59	11,54	10,74	9,54	8,68	8,01	
		L/150	6,64	7,24	8,01	9,08	9,72	10,53	11,62	12,03	10,74	9,80	9,08	8,01	7,24	6,64	
L/200	5,74	6,30	6,97	7,82	8,38	9,09	10,04	10,57	9,53	8,68	8,01	7,02	6,30	5,74			

Table 22. Maximal allowable spans for uniformly distributed characteristic load [kN/m²] for panel PW PUR-D 40/82 and PW PIR-D 40/82 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group		Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,4	0,6	0,8	1,0	1,3	1,6	2,0	2,2	2,6	3,4	
single-span system	I	ULS	2,59	2,98	3,53	4,35	5,81	2,77	2,32	2,02	1,72	1,52	1,33	1,26	1,14	0,98	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	3,02	3,29	3,66	3,94	3,94	3,14	2,98	2,83	2,60	2,43	2,25	2,17	2,01	1,78	
	II	ULS	2,49	2,86	3,39	4,19	5,61	2,77	2,32	2,02	1,72	1,52	1,33	1,26	1,14	0,98	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	2,99	3,15	3,35	3,60	3,94	3,14	2,98	2,83	2,60	2,43	2,25	2,17	2,01	1,78	
	III	ULS	2,33	2,68	3,17	3,94	5,29	2,77	2,32	2,02	1,72	1,52	1,33	1,26	1,14	0,98	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	2,64	2,75	2,88	3,03	3,24	3,14	2,98	2,83	2,60	2,43	2,25	2,17	2,01	1,78	
double-span system	I	ULS	1,90	2,35	2,88	3,54	4,92	3,16	2,72	2,43	2,12	1,91	1,56	1,42	1,21	0,93	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	3,88	4,24	4,73	5,45	6,71	4,71	4,23	3,87	3,47	3,18	2,89	2,77	2,57	2,28	
	II	ULS	1,77	2,19	2,71	3,33	4,61	3,16	2,72	2,43	2,12	1,91	1,56	1,42	1,21	0,93	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	3,88	4,24	4,73	5,45	6,71	4,71	4,23	3,87	3,47	3,18	2,89	2,77	2,57	2,28	
	III	ULS	1,56	1,94	2,48	3,00	4,12	3,16	2,72	2,43	2,12	1,91	1,56	1,42	1,21	0,93	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	3,88	4,24	4,73	5,45	6,71	4,71	4,23	3,87	3,47	3,18	2,89	2,77	2,57	2,28	
multispan system	I	ULS	2,36	2,85	3,33	4,12	5,76	3,68	3,16	2,81	2,44	2,14	1,85	1,73	1,46	1,12	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	3,69	4,03	4,48	5,14	6,29	4,39	4,01	3,68	3,32	3,04	2,77	2,66	2,47	2,20	
	II	ULS	2,29	2,75	3,21	3,97	5,55	3,68	3,16	2,81	2,44	2,14	1,85	1,73	1,46	1,12	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	3,69	4,03	4,48	5,14	6,29	4,39	4,01	3,68	3,32	3,04	2,77	2,66	2,47	2,20	
	III	ULS	2,19	2,60	3,02	3,73	5,22	3,68	3,16	2,81	2,44	2,14	1,85	1,73	1,46	1,12	
		Joints*	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	3,69	4,03	4,48	5,01	5,69	4,39	4,01	3,68	3,32	3,04	2,77	2,66	2,47	2,20	

Table 23. Maximal allowable spans for uniformly distributed characteristic load [kN/m²] for panel PW PUR-D 60/102 and PW PIR-D 60/120 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group		Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,4	0,6	0,8	1,0	1,3	1,6	2,0	2,2	2,6	3,4	
single-span system	I	ULS	3,44	3,99	4,74	5,84	7,65	3,71	3,05	2,59	2,12	1,81	1,53	1,43	1,27	1,07	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	3,71	4,06	4,53	4,91	4,91	3,85	3,65	3,44	3,16	2,93	2,69	2,59	2,39	2,09	
	II	ULS	3,32	3,86	4,59	5,67	7,55	3,71	3,05	2,59	2,12	1,81	1,53	1,43	1,27	1,07	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	3,71	3,94	4,21	4,56	4,91	3,85	3,65	3,44	3,16	2,93	2,69	2,59	2,39	2,09	
	III	ULS	3,14	3,66	4,37	5,42	7,25	3,71	3,05	2,59	2,12	1,81	1,53	1,43	1,27	1,07	
		Joints*	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	3,25	3,40	3,58	3,81	4,10	3,85	3,65	3,44	3,16	2,93	2,69	2,59	2,39	2,09	
double-span system	I	ULS	1,85	2,27	2,95	3,97	5,72	3,41	2,92	2,58	2,24	2,00	1,75	1,59	1,35	1,05	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	4,70	5,17	5,80	6,73	8,36	5,70	5,10	4,65	4,15	3,77	3,39	3,24	2,99	2,61	
	II	ULS	1,68	2,07	2,71	3,70	5,33	3,41	2,92	2,58	2,24	2,00	1,75	1,59	1,35	1,05	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	4,70	5,17	5,80	6,73	8,36	5,70	5,10	4,65	4,15	3,77	3,39	3,24	2,99	2,61	
	III	ULS	1,45	1,76	2,31	3,30	4,71	3,41	2,92	2,58	2,24	2,00	1,75	1,59	1,35	1,05	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	4,70	5,17	5,80	6,73	8,36	5,70	5,10	4,65	4,15	3,77	3,39	3,24	2,99	2,61	
multispan system	I	ULS	2,31	2,85	3,64	4,62	6,72	3,97	3,38	2,97	2,56	2,27	2,01	1,90	1,63	1,24	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	4,50	4,93	5,50	6,35	7,84	5,36	4,86	4,45	3,98	3,64	3,28	3,14	2,90	2,54	
	II	ULS	2,22	2,75	3,49	4,43	6,45	3,97	3,38	2,97	2,56	2,27	2,01	1,90	1,63	1,24	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	4,50	4,93	5,50	6,35	7,84	5,36	4,86	4,45	3,98	3,64	3,28	3,14	2,90	2,54	
	III	ULS	2,07	2,59	3,27	4,13	6,03	3,97	3,38	2,97	2,56	2,27	2,01	1,90	1,63	1,24	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	4,50	4,93	5,50	6,35	7,32	5,36	4,86	4,45	3,98	3,64	3,28	3,14	2,90	2,54	

Table 24. Maximal allowable spans for uniformly distributed characteristic load [kN/m²] for panel PW PUR-D 80/122 and PW PIR-D 80/122 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group		Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,4	0,6	0,8	1,0	1,3	1,6	2,0	2,2	2,6	3,4	
single-span system	I	ULS	4,40	5,07	5,83	6,85	8,72	4,74	3,94	3,34	2,69	2,23	1,82	1,67	1,45	1,17	
		Joints*	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	4,40	4,82	5,39	5,91	5,91	4,61	4,36	4,08	3,73	3,46	3,17	3,03	2,79	2,42	
	II	ULS	4,29	4,95	5,83	6,85	8,72	4,74	3,94	3,34	2,69	2,23	1,82	1,67	1,45	1,17	
		Joints*	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	4,40	4,77	5,12	5,58	5,91	4,61	4,36	4,08	3,73	3,46	3,17	3,03	2,79	2,42	
	III	ULS	4,11	4,76	5,62	6,85	8,72	4,74	3,94	3,34	2,69	2,23	1,82	1,67	1,45	1,17	
		Joints*	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	3,93	4,13	4,36	4,66	5,06	4,61	4,36	4,08	3,73	3,46	3,17	3,03	2,79	2,42	
double-span system	I	ULS	1,82	2,22	2,87	4,09	6,54	3,66	3,11	2,74	2,36	2,10	1,85	1,76	1,51	1,17	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,54	6,11	6,87	8,00	10,00	6,68	5,97	5,44	4,84	4,38	3,93	3,74	3,43	2,97	
	II	ULS	1,64	1,99	2,58	3,74	6,08	3,66	3,11	2,74	2,36	2,10	1,85	1,76	1,51	1,17	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,54	6,11	6,87	8,00	10,00	6,68	5,97	5,44	4,84	4,38	3,93	3,74	3,43	2,97	
	III	ULS	1,36	1,56	1,94	3,12	5,34	3,66	3,11	2,74	2,36	2,10	1,85	1,76	1,51	1,17	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,54	6,11	6,87	8,00	10,00	6,68	5,97	5,44	4,84	4,38	3,93	3,74	3,43	2,97	
multispan system	I	ULS	2,27	2,80	3,65	5,12	7,69	4,25	3,58	3,13	2,68	2,37	2,08	1,97	1,79	1,38	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,31	5,83	6,53	7,56	9,38	6,31	5,70	5,21	4,66	4,24	3,82	3,64	3,35	2,91	
	II	ULS	2,15	2,67	3,51	4,90	7,37	4,25	3,58	3,13	2,68	2,37	2,08	1,97	1,79	1,38	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,31	5,83	6,53	7,56	9,38	6,31	5,70	5,21	4,66	4,24	3,82	3,64	3,35	2,91	
	III	ULS	1,97	2,47	3,30	4,55	6,87	4,25	3,58	3,13	2,68	2,37	2,08	1,97	1,79	1,38	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,31	5,83	6,53	7,56	9,03	6,31	5,70	5,21	4,66	4,24	3,82	3,64	3,35	2,91	

Table 25. Maximal allowable spans for uniformly distributed characteristic load [kN/m²] for panel PW PUR-D 90/132 and PW PIR-D 90/132 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group	Characterictis loading [kN/m ²]															
		-1,2	-1,0	-0,8	-0,6	-0,4	0,6	0,8	1,0	1,3	1,6	2,0	2,2	2,6	3,4		
single-span system	I	ULS	4,88	5,45	6,15	7,23	9,23	5,24	4,39	3,74	3,02	2,50	2,01	1,83	1,56	1,24	
		Joints*	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	4,74	5,20	5,81	6,40	6,40	4,98	4,71	4,39	4,02	3,72	3,41	3,26	2,99	2,59	
	II	ULS	4,77	5,45	6,15	7,23	9,23	5,24	4,39	3,74	3,02	2,50	2,01	1,83	1,56	1,24	
		Joints*	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	4,74	5,20	5,58	6,09	6,40	4,98	4,71	4,39	4,02	3,72	3,41	3,26	2,99	2,59	
	III	ULS	4,60	5,29	6,15	7,23	9,23	5,24	4,39	3,74	3,02	2,50	2,01	1,83	1,56	1,24	
		Joints*	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	4,28	4,50	4,77	5,10	5,56	4,98	4,71	4,39	4,02	3,72	3,41	3,26	2,99	2,59	
double-span system	I	ULS	1,80	2,20	2,83	4,05	6,97	3,78	3,21	2,82	2,42	2,15	1,89	1,79	1,59	1,24	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,96	6,58	7,41	8,64	10,82	7,16	6,40	5,83	5,18	4,69	4,20	4,00	3,66	3,16	
	II	ULS	1,62	1,96	2,53	3,65	6,47	3,78	3,21	2,82	2,42	2,15	1,89	1,79	1,59	1,24	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,96	6,58	7,41	8,64	10,82	7,16	6,40	5,83	5,18	4,69	4,20	4,00	3,66	3,16	
	III	ULS	1,31	1,48	1,77	2,70	5,67	3,78	3,21	2,82	2,42	2,15	1,89	1,79	1,59	1,24	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 3	2 3	2 3	2 3	2 2
		SLS L/200	5,96	6,58	7,41	8,64	10,82	7,16	6,40	5,83	5,18	4,69	4,20	4,00	3,66	3,16	
multispan system	I	ULS	2,25	2,78	3,63	5,16	8,20	4,38	3,68	3,21	2,74	2,41	2,11	2,00	1,82	1,44	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,71	6,28	7,04	8,16	10,15	6,78	6,11	5,59	4,99	4,54	4,08	3,89	3,58	3,10	
	II	ULS	2,12	2,64	3,48	5,01	7,85	4,38	3,68	3,21	2,74	2,41	2,11	2,00	1,82	1,44	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,71	6,28	7,04	8,16	10,15	6,78	6,11	5,59	4,99	4,54	4,08	3,89	3,58	3,10	
	III	ULS	1,92	2,41	3,24	4,76	7,32	4,38	3,68	3,21	2,74	2,41	2,11	2,00	1,82	1,44	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	5,71	6,28	7,04	8,16	9,89	6,78	6,11	5,59	4,99	4,54	4,08	3,89	3,58	3,10	

Table 26. Maximal allowable spans for uniformly distributed characteristic load [kN/m²] for panel PW PUR-D 100/142 and PW PIR-D 100/142 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group		Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,4	0,6	0,8	1,0	1,3	1,6	2,0	2,2	2,6	3,4	
single-span system	I	ULS	5,18	5,71	6,46	7,60	9,72	5,73	4,82	4,14	3,37	2,79	2,23	2,02	1,70	1,31	
		Joints*	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	5,08	5,57	6,22	6,89	6,89	5,35	5,05	4,71	4,30	3,99	3,65	3,48	3,20	2,77	
	II	ULS	5,18	5,71	6,46	7,60	9,72	5,73	4,82	4,14	3,37	2,79	2,23	2,02	1,70	1,31	
		Joints*	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	5,08	5,57	6,04	6,60	6,89	5,35	5,05	4,71	4,30	3,99	3,65	3,48	3,20	2,77	
	III	ULS	5,07	5,71	6,46	7,60	9,72	5,73	4,82	4,14	3,37	2,79	2,23	2,02	1,70	1,31	
		Joints*	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	4,63	4,87	5,17	5,55	6,06	5,35	5,05	4,71	4,30	3,99	3,65	3,48	3,20	2,77	
double-span system	I	ULS	1,79	2,18	2,80	4,00	6,98	3,90	3,30	2,89	2,48	2,20	1,93	1,83	1,63	1,27	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	6,38	7,04	7,93	9,25	11,61	7,63	6,82	6,21	5,52	5,00	4,47	4,25	3,89	3,35	
	II	ULS	1,61	1,94	2,48	3,57	6,49	3,90	3,30	2,89	2,48	2,20	1,93	1,83	1,63	1,27	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	6,38	7,04	7,93	9,25	11,61	7,63	6,82	6,21	5,52	5,00	4,47	4,25	3,89	3,35	
	III	ULS	1,28	1,43	1,66	2,16	5,61	3,90	3,30	2,89	2,48	2,20	1,93	1,83	1,63	1,27	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 3	2 3	2 3	2 3	2 3	2 2
		SLS L/200	6,38	7,04	7,93	9,25	11,61	7,63	6,82	6,21	5,52	5,00	4,47	4,25	3,89	3,35	
multispan system	I	ULS	2,23	2,76	3,61	5,15	8,69	4,50	3,78	3,29	2,80	2,46	2,15	2,03	1,84	1,47	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	6,11	6,72	7,53	8,74	10,89	7,24	6,52	5,96	5,32	4,84	4,35	4,15	3,81	3,30	
	II	ULS	2,10	2,61	3,44	4,98	8,32	4,50	3,78	3,29	2,80	2,46	2,15	2,03	1,84	1,47	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	6,11	6,72	7,53	8,74	10,89	7,24	6,52	5,96	5,32	4,84	4,35	4,15	3,81	3,30	
	III	ULS	1,88	2,36	3,17	4,70	7,74	4,50	3,78	3,29	2,80	2,46	2,15	2,03	1,84	1,47	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	6,11	6,72	7,53	8,74	10,75	7,24	6,52	5,96	5,32	4,84	4,35	4,15	3,81	3,30	

Table 27. Maximal allowable spans for uniformly distributed characteristic load [kN/m²] for panel PW PUR-D 120/162 and PW PIR-D 120/162 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group	Characterictis loading [kN/m ²]															
		-1,2	-1,0	-0,8	-0,6	-0,4	0,6	0,8	1,0	1,3	1,6	2,0	2,2	2,6	3,4		
single-span system	I	ULS	5,64	6,22	7,04	8,31	10,66	6,64	5,65	4,91	4,06	3,41	2,74	2,47	2,03	1,50	
		Joints*	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	5,74	6,29	7,03	7,82	7,82	6,08	5,70	5,31	4,86	4,51	4,11	3,92	3,60	3,12	
	II	ULS	5,64	6,22	7,04	8,31	10,66	6,64	5,65	4,91	4,06	3,41	2,74	2,47	2,03	1,50	
		Joints*	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	5,74	6,29	6,95	7,63	7,82	6,08	5,70	5,31	4,86	4,51	4,11	3,92	3,60	3,12	
	III	ULS	5,64	6,22	7,04	8,31	10,66	6,64	5,65	4,91	4,06	3,41	2,74	2,47	2,03	1,50	
		Joints*	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	5,34	5,63	5,98	6,44	7,08	6,08	5,70	5,31	4,86	4,51	4,11	3,92	3,60	3,12	
double-span system	I	ULS	1,78	2,16	2,75	3,91	6,92	4,12	3,48	3,04	2,60	2,29	2,01	1,89	1,62	1,26	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	7,20	7,95	8,97	10,48	13,21	8,53	7,64	6,96	6,19	5,61	5,01	4,76	4,35	3,74	
	II	ULS	1,59	1,90	2,41	3,42	6,32	4,12	3,48	3,04	2,60	2,29	2,01	1,89	1,62	1,26	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	7,20	7,95	8,97	10,48	13,21	8,53	7,64	6,96	6,19	5,61	5,01	4,76	4,35	3,74	
	III	ULS	1,24	1,37	1,54	1,83	5,16	4,12	3,48	3,04	2,60	2,29	2,01	1,89	1,62	1,26	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 3	2 3	2 3	2 3	2 3	2 3	2 2
		SLS L/200	7,20	7,95	8,97	10,48	13,21	8,53	7,64	6,96	6,19	5,61	5,01	4,76	4,35	3,74	
multispan system	I	ULS	2,20	2,72	3,57	5,13	8,79	4,74	3,97	3,44	2,91	2,56	2,22	2,10	1,89	1,46	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	6,90	7,59	8,51	9,89	12,16	8,11	7,29	6,68	5,97	5,43	4,88	4,65	4,26	3,68	
	II	ULS	2,05	2,55	3,37	4,93	8,58	4,74	3,97	3,44	2,91	2,56	2,22	2,10	1,89	1,46	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	6,90	7,59	8,51	9,89	12,16	8,11	7,29	6,68	5,97	5,43	4,88	4,65	4,26	3,68	
	III	ULS	1,81	2,26	3,05	4,59	8,26	4,74	3,97	3,44	2,91	2,56	2,22	2,10	1,89	1,46	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	6,90	7,59	8,51	9,89	12,16	8,11	7,29	6,68	5,97	5,43	4,88	4,65	4,26	3,68	

Table 28. Maximal allowable spans for uniformly distributed characteristic load [kN/m²] for panel PW PUR-D 160/202 and PW PIR-D 160/202 mm.

External facing thickness 0,50 [mm]
 Internal facing thickness 0,50 [mm]
 Outside temperature + 55 °C, + 65 °C, + 80 °C, / - 20 °C (summer/winter)
 Inside temperature + 25 °C / + 20 °C (summer/winter)
 Minimal width of extreme support 40 [mm]
 Minimal width of middle support 60 [mm]
 Required number of joints

a	b
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 a – on extreme support
 b – on middle support

ULS - Ultimate Limit State
 SLS - Serviceability Limit State

Static scheme	Colour group		Characterictis loading [kN/m ²]														
			-1,2	-1,0	-0,8	-0,6	-0,4	0,6	0,8	1,0	1,3	1,6	2,0	2,2	2,6	3,4	
single-span system	I	ULS	5,74	7,02	8,16	9,66	12,49	8,80	7,24	5,97	4,73	3,91	3,18	2,91	2,48	1,92	
		Joints*	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2
		SLS L/200	7,02	7,69	8,60	9,64	9,64	7,49	6,95	6,50	5,95	5,52	5,01	4,78	4,40	3,82	
	II	ULS	5,74	7,02	8,16	9,66	12,49	8,80	7,24	5,97	4,73	3,91	3,18	2,91	2,48	1,92	
		Joints*	3	3	3	3	2	2	2	2	2	2	2	2	2	2	
		SLS L/200	7,02	7,69	8,60	9,64	9,64	7,49	6,95	6,50	5,95	5,52	5,01	4,78	4,40	3,82	
	III	ULS	5,74	7,02	8,16	9,66	12,49	8,80	7,24	5,97	4,73	3,91	3,18	2,91	2,48	1,92	
		Joints*	3	3	3	3	2	2	2	2	2	2	2	2	2	2	
		SLS L/200	6,76	7,15	7,63	8,27	9,21	7,49	6,95	6,50	5,95	5,52	5,01	4,78	4,40	3,82	
double-span system	I	ULS	1,78	2,13	2,69	3,78	6,80	4,42	3,72	3,25	2,67	2,24	1,84	1,69	1,46	1,15	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	8,82	9,74	10,99	12,87	15,99	10,25	9,20	8,41	7,49	6,80	6,08	5,78	5,28	4,53	
	II	ULS	1,58	1,87	2,30	3,20	5,96	4,42	3,72	3,25	2,67	2,24	1,84	1,69	1,46	1,15	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	8,82	9,74	10,99	12,87	15,99	10,25	9,20	8,41	7,49	6,80	6,08	5,78	5,28	4,53	
	III	ULS	1,21	1,32	1,45	1,63	1,94	4,42	3,72	3,25	2,67	2,24	1,84	1,69	1,46	1,15	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 3	2 3	2 3	2 3	2 3	2 3	2 2	2 2
		SLS L/200	8,82	9,74	10,99	12,87	15,99	10,25	9,20	8,41	7,49	6,80	6,08	5,78	5,28	4,53	
multispan system	I	ULS	2,15	2,66	3,50	5,10	8,95	5,06	4,22	3,65	3,07	2,66	2,15	1,96	1,68	1,30	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	8,43	9,27	10,41	12,12	14,55	9,74	8,78	8,06	7,22	6,58	5,92	5,65	5,18	4,47	
	II	ULS	1,98	2,45	3,25	4,82	8,67	5,06	4,22	3,65	3,07	2,66	2,15	1,96	1,68	1,30	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	8,43	9,27	10,41	12,12	14,55	9,74	8,78	8,06	7,22	6,58	5,92	5,65	5,18	4,47	
	III	ULS	1,71	2,11	2,83	4,35	8,23	5,06	4,22	3,65	3,07	2,66	2,15	1,96	1,68	1,30	
		Joints*	2 3	2 3	2 3	2 3	2 3	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2	2 2
		SLS L/200	8,43	9,27	10,41	12,12	14,55	9,74	8,78	8,06	7,22	6,58	5,92	5,65	5,18	4,47	

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