BLACHY PRUSZYŃSKI

TERAZ POLSKA

FIRMA RODZINNA

PIRTECH

SANDWICH PANELS

with rigid polyurethane
foam core PIR in steel facings

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ABOUT COMPANY

Pruszynski Group is the largest Polish producer of construction products. The structure of the Group is made up of twenty companies operating in Poland and Europe. The core of the activities are:

- **Blachy Pruszynski** - manufacturer among number of products - steel roofing, facade, sandwich panels and cold-formed profiles.
- **PUNTO Pruszyński**, manufacturer of suspended metal ceilings, facade facing, profiles and accessories for plasterboard assembly.
- **METKOL Pruszyński**, producer of non-ferrous and acid-resistant steel products.
- **EXTRAL** - manufacturer of aluminum profiles.

Since the beginning of its activity, Pruszyński Group has paid the attention to the importance of the highest quality of their products and long-term relationships with customers. Pruszynski has gained a market leader position in construction, and its products definitely stand out on it, which confirms the number of awards and diplomas of appreciation. The commercial offer is extremely wide therefore the products can be combined into systems that provide investors with complete solutions at site and shorten the finishing of the project.

PIRTECH SANDWICH PANELS SYSTEM

In the second decade of the 21st century, there was a shift in economic activity on the market for products construction. The demand for sandwich panels in metal facings with polyurethane rigid foam core (PIR) has risen. The reaction of Pruszyński Capital Group to the overwhelming transformation was the extension of the current offer (sandwich panels with mineral wool core and styrofoam) with sandwich panels with PIR type. The offer is dedicated to architects and investors who expect complex supplies of whole systems where they will find PIR sandwich panels in the metal facings, flashings and other needed accessories and professional technical support. Panels are produced according to the harmonized standard PN-EN 14509 with CE marking and Declaration of Conformity.

Production of PIRTECH **sandwich panels** with rigid polyurethane foam core (PIR) was launched in mid-2016. The production process is carried out continuously, fully automated line provided by one of the industry leaders Hennecke (GERMANY). Pentane is used as a foaming agent. Owing to that, production is environmentally friendly - it does not destroy the ozone layer and does not cause a greenhouse effect. Other components of foam are: polyol - polyurethane resin, isocyanate - hardener and activators and additives.

Technological process of production of sandwich panels with polyurethane foam core (PIR) consists of injecting the mixed components, which then form a rigid core polyurethane with a density of 40 ± 3 [kg / m3], between two moving continuously steel facings (with profiled edges and shaped surfaces of facings); at the same time there is the application of gasket and aluminum foil into the joints of the panel.

Maximum production speed is up to 15 m / min. The length of CONTIMAT (tunnel) is 45 m long - one of the longest in Europe. As a result, the higher efficiency is achieved along with high quality of produced panels. The line was fitted with 2 crowns - for the bottom plate (external facing) and for the upper plate (internal facing). Currently, the standard is only one such device installed in the production line in Europe. It improves the adhesion of the core to the metal facings. Better adhesion gives higher mechanical properties of the panels – load capacity and stiffness. In order to improve the quality of the produced panels the line was equipped in the special cooling section named as “hedgehog”. Thanks to this solution, the produced panels spend proper time to cool down. In this way, the risk of thermal shock is avoided, as it has a very negative effect on appearance of panels and their mechanical properties. Next to the production hall, there is the magazine for the panels for further cooling down. After 24 hours the panels are sent to the clients.
The production line of roofing panels is equipped with so-called overlapping - preparing panels for easy and fast assembling on the length. The main raw material base - isocyanates and polyols, are stocked in two batteries tanks - 4 pieces each (each tank 40 m3). Such a quantity of tanks ensures continuous maintenance of production - risk of breaks in production are practically eliminated to zero.
High quality and constant reproducibility of technical parameters of PIRTECH sandwich panels has been obtained by using the highest quality raw materials and continuous control of all steps of production according to Factory Production Control.

Steel facings are produced with thicknesses from 0.40 mm to 0.70 mm and they are covered with metallic and organic protective coatings. The very wide offer enables the use of PIRTECH panels in the most aggressive environments. In addition, the protective coatings are offered in number of different colours, so that they can meet the most sophisticated investors expectations.

PURPOSE AND APPLICATION

Sandwich elements are constructed from materials which consist of construction elements (external steel facings) and construction –insulation layer (core of the panel). The idea of the sandwich panels is permanent connection construction of facings with core on whole surface in order to get the static collaboration among them.

Sandwich panels are used in the building industry as:

- Curtain walls,
- Roofs,
- Internal partition walls,
- Occasionally as load-bearing walls (in the case of single-storey small buildings such a small cubic chambers, backyard facilities, rarely cottages),
- Suspended ceiling elements.

In buildings of various uses, which include objects:

- One-storey (multi-storey) and multi-storey industrial buildings.
- Public utilities (sports and entertainment halls, large commercial halls, Swimming pools, etc.).
- Agricultural construction.
- Special construction (eg. cooling towers, floating railways, back office buildings construction, floating military containers, etc.).

The use of sandwich panels in the construction industry is due to the benefits of both small mass, as well as the specificity of raising partitions from these products. To these benefits we can also include:

- Speed and ease of assembling
- Ability to exclude the heavy equipment from construction
- Clear reduction for heavy means of transport
- Easily removable and reassembled (in case of process change technological and possible change of requirements in relation to the production area of enclosure made of sandwich panels)
- Decoupling of assembly work from atmospheric conditions.
- Limitation of finishing works.
- Particular ease in obtaining required thermal insulation of partitions, without the need for technological changes in production.

Wall panels

Sandwich panels system with rigid polyurethane foam core (PIR) in metal facings from production of PRUSZYŃSKI Sp. z o. o. includes wall panels with visible joint (PWS - PIR - ST), wall panels with hidden joint (PWS - PIR - PL), roof panels (PWD - PIR) and cold storage panels (PWS - PIR - CH).

Basic modular widths are:

- Wall panels with visible joints and cold storage panels 1150 mm.
- Wall panels with hidden joint and roof panels 1050 mm.

The longitudinal contacts („joints") of the wall panels have a conical shape:

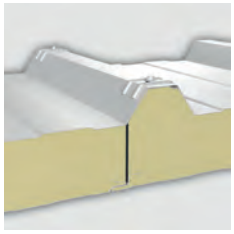
- facilitates assembly (saving time and minimizing risk of damage)
- provides water and air tightness,
- improves fire resistance, reaction to fire,
- increases the longitudinal rigidity of the boards - thus improving the bearing capacity and performance rigidity.

In the case of wall panels with hidden joint – they have unique geometry - „triple" feather - groove. Therefore, you can get even better fire safety properties and mechanical properties.

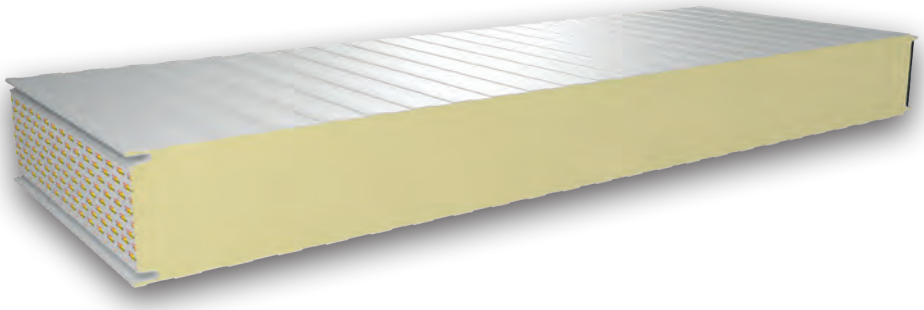
Roof panels

As for the roof panels, the external facing has been shaped (the main fold 40 mm high) that the load capacity is comparable to the roof panels with the main fold height 45 mm. Therefore, it is possible:

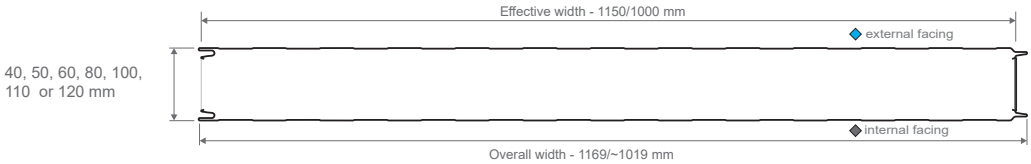
- saving on raw material
- saving on the length of assembly fasteners
- cost savings on transport

Types of PIRTECH panels				
Name	**STANDARD - ST**	**PLUS - PL**	**COLD STORAGE - CH**	**ROOF**
joint				
designation	**PWS-PIR-ST**	**PWS-PIR-PL**	**PWS-PIR-CH**	**PWD-PIR**
core	**PIR polyurethane**			
thickness (mm)	**40/50/60/80/100/120**	**60/80/100/120**	**120/160/180/200/220**	**40/60/80/100/120/160**
effective width (mm)	1000, 1150	1000, 1050	1000, 1150	1050
thickness of the facing (mm)	0,50	0,50	0,50	0,50
range of external profiling	trapezoidal - T / micro - M / wave - F / casette - K / No profiling*			**trapezoidal T40**
range of internal profiling	trapezoidal - T			
anti-corrosion coating	polyester gloss, PMG, polyurethane, hybrid PURMAX, HPS 200			

*for special request

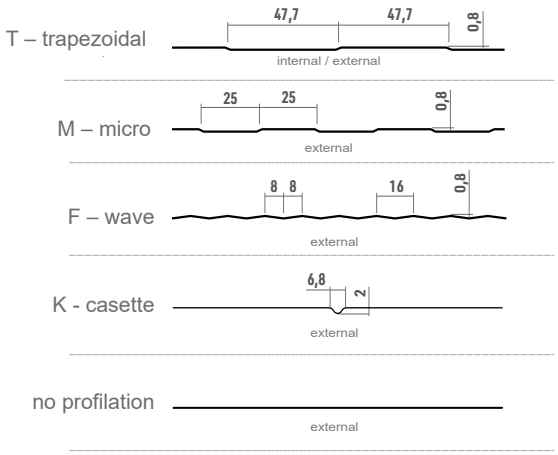


cross-section



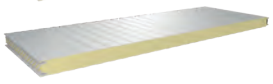
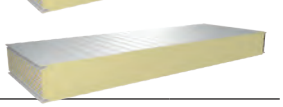
Possible range of facing profiling

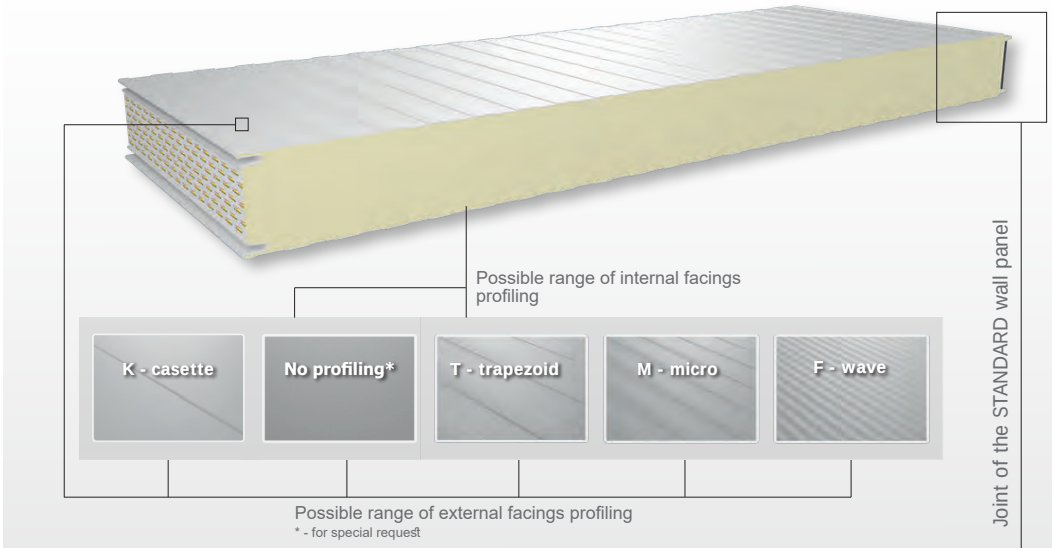
Possible range of facing profiling



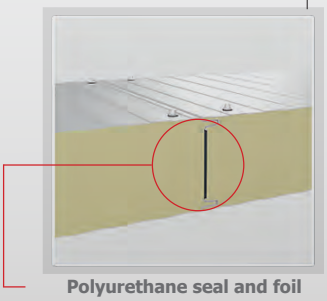
*flat profilation is available only for thickness 0,6 mm

Panels with visible joints are dedicated for projects where the basic investor's criteria are the technical parameters and the exterior appearance of its façade and visible joints may be accepted. For example – warehouses, factories, food and industrial warehouses.

Profile of the STANDARD wall sandwich panel	
symbol / thickness	PIRTECH
PWS-PIR-ST 40	
PWS-PIR-ST 50	
PWS-PIR-ST 60	
PWS-PIR-ST 80	
PWS-PIR-ST 100	
PWS-PIR-ST 110	
PWS-PIR-ST 120	



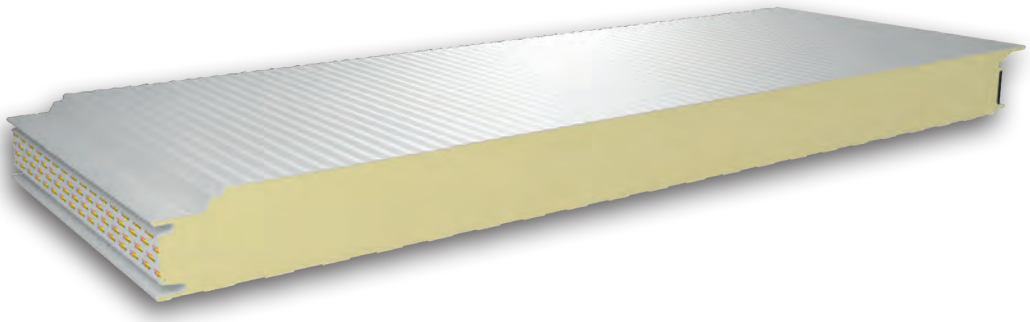
Type of the panel	Possible range of facings profiling	
	external	internal
PWS-PIR-ST	No profiling*	No profiling*
	T - trapezoid	T - trapezoid
	M - micro	-
	K - casette	-
	F - wave	-

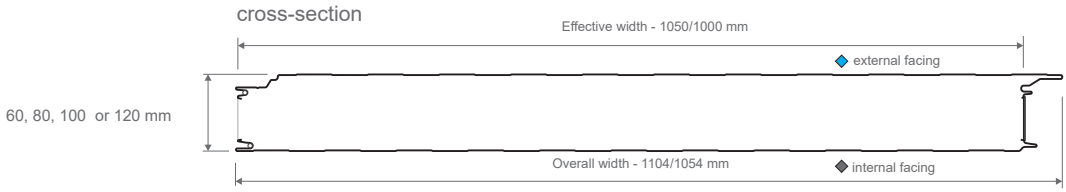


basic technical data							
core thickness (mm)	40	50	60	80	100	110	120
effective width (mm)	1150/1000**						
overall width (mm)	~1169/ 1019**						
thickness of facings (mm)	external 0,40-0,70 / internal 0,40-0,63						
polyurethane foam core (kg/m^3)	with a density of 37 (±2)			with a density of 40 (±3)			
colours facings	Colour palette						
panel length (mb)	2,0						
max panel length (mb)	18 **(depending on colour - see on page 16)**						
weight 1 m^2 (kg)	9,2	9,6	10,0	10,8	11,6	12,0	12,4
anti-corrosion coating	polyester gloss, PMG, polyurethane, hybrid PURMAX, HPS 200						
declared heat transfer coefficient λD (W / mK)	0,022						
heat transfer coefficient - Uc (W / m2K)	0,60	0,46	0,38	0,29	0,23	0,20	0,19/0,18*
reaction to fire	B-s2, d0			B-s1, d0			
flame propagation	NRO						
fire resistance	-	-	-	-	EI30(o↔i)/EI45		
water permeability	Class A - 1200Pa						
air permeability	50 Pa 0,07 m^3/hm^2 -50 Pa 0,01 m^3/hm^2						
water vapour permeability	impermeable						
sound insulation (dB)	27 (-2;-4) - 40 mm 25 (-3;-5) - 120 mm **For the whole family** 25 (-3;-5)						
absorption index α_w	0,15						
tensile strength (MPa)	0,070						
shear strength (MPa)	0,075						
shear modulus (MPa)	2,9						
compressive strength (MPa)	0,095						

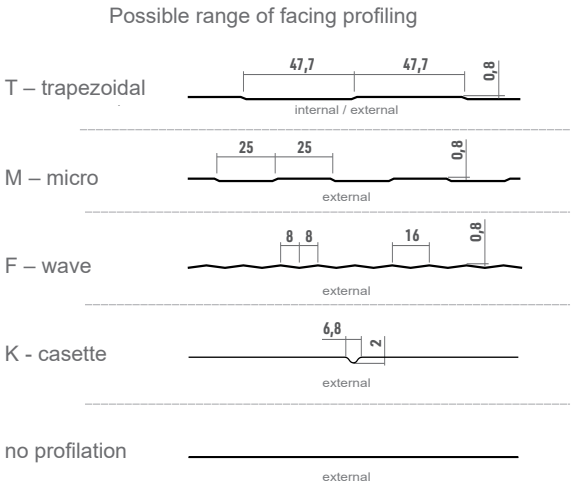
*only for stainless steel connectors
**non-standard dimention modules

Weights were determined for thickness of facings 0,50/0,40 mm and only for standard modules



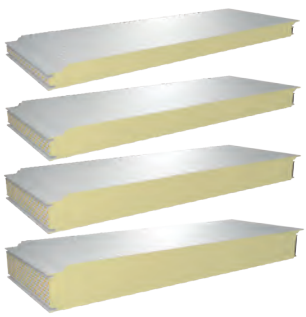


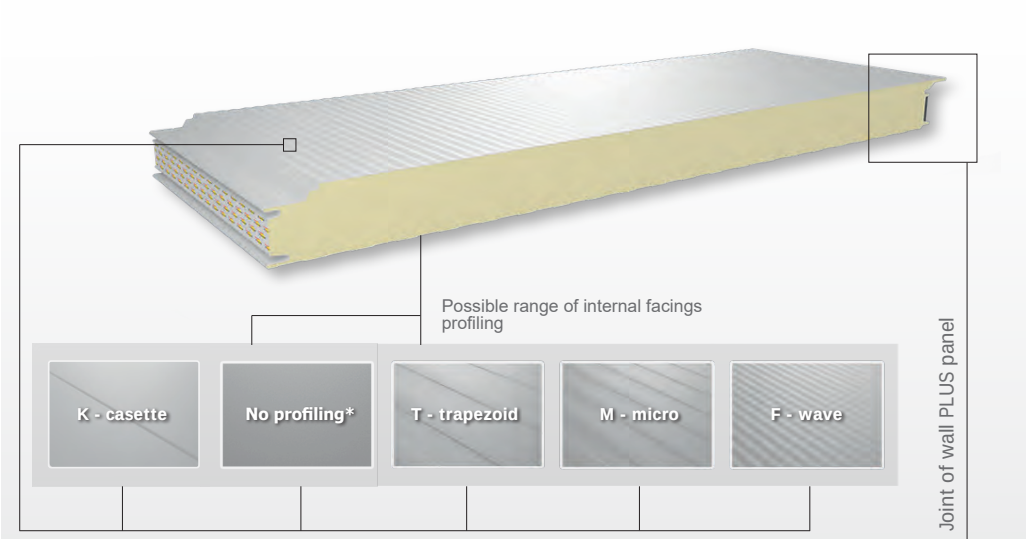
Possible range of facings profiling



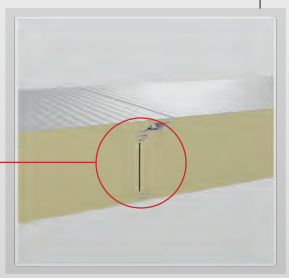
*flat profilation is available only for thickness 0,6 mm

This panel has the hidden joint, designed for construction projects where one of its conditions is the aesthetic appearance of facade. Wide range of colours and its qualities allow to carry out the construction project incorporated into each urban plan. It gives the ability to combine different architectural styles in towns and villages. Panels with hidden joint can be used for facades of residential buildings, hotels, shopping facilities, office buildings, stations and other public buildings. It helps architects with the most modern construction projects.

Range of facings profiling	
Symbol/thickness	PIRTECH
PWS-PIR-PL 60	
PWS-PIR-PL 80	
PWS-PIR-PL 100	
PWS-PIR-PL 120	



Type of the panel	Possible range of facings profiling	
	external	internal
PWS-PIR-PL	no profiling*	no profiling*
	T - trapezoid	T - trapezoid
	M - micro	-
	K - casette	-
	F - wave	-

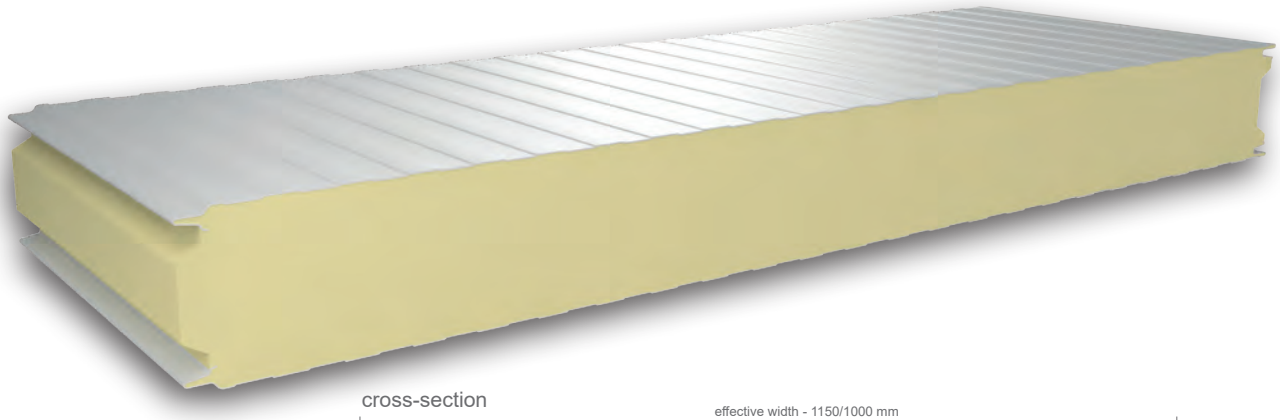


Polyurethane seal and foil

Basic technical data				
core thickness (mm)	60	80	100	120
effective width (mm)	1050/1000*			
overall width (mm)	1104/1054*			
thickness of facings (mm)	external 0,40-0,70 / internal 0,40-0,63			
polyurethane foam core	37(±2) kg/m^3	40(±3) kg/m^3		
colour facings	colour palette			
min. panel length (mb)	2,0			
max panel length (mb)	18 **(depending on colour - see on page 16)**			
weight 1 m^2 (kg)	10,5	11,3	12,1	12,9
anti-corrosion coating	polyester gloss, PMG, polyurethane, hybrid PURMAX, HPS 200			
declared heat transfer coefficient λ_D (W/mK)	0,022			
heat transfer coefficient - Uc (W/m^{2}K)	0,41	0,30	0,23	0,20
reaction to fire	B-s2, d0			B-s1, d0
flame propagation	NRO			
fire resistance	EI30 (o↔i)			EI60 (o→i) /E60(o→i)
water permeability	Class A - 1200Pa			
air permeability	50 Pa 0,08 m^3/hm^2 -50 Pa 0,16 m^3/hm^2			
water vapour permeability	impermeable			
sound insulation (dB)	**For the whole family** 25 (-3;-5)			
absorption index α_w	0,15			
tensile strength (MPa)	0,070			
shear strength (MPa)	0,075			
shear modulus (MPa)	2,9			
compressive strength (MPa)	0,095			

*non-standard dimention modules

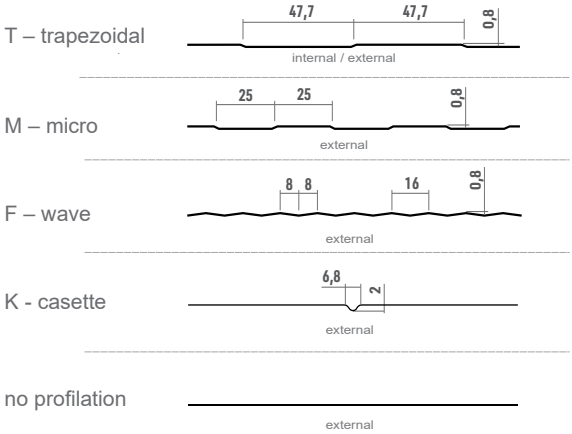
Weights were determined for thickness of facings 0,50/0,40 mm and only for standard modules



cross-section

Possible range of facings profiling

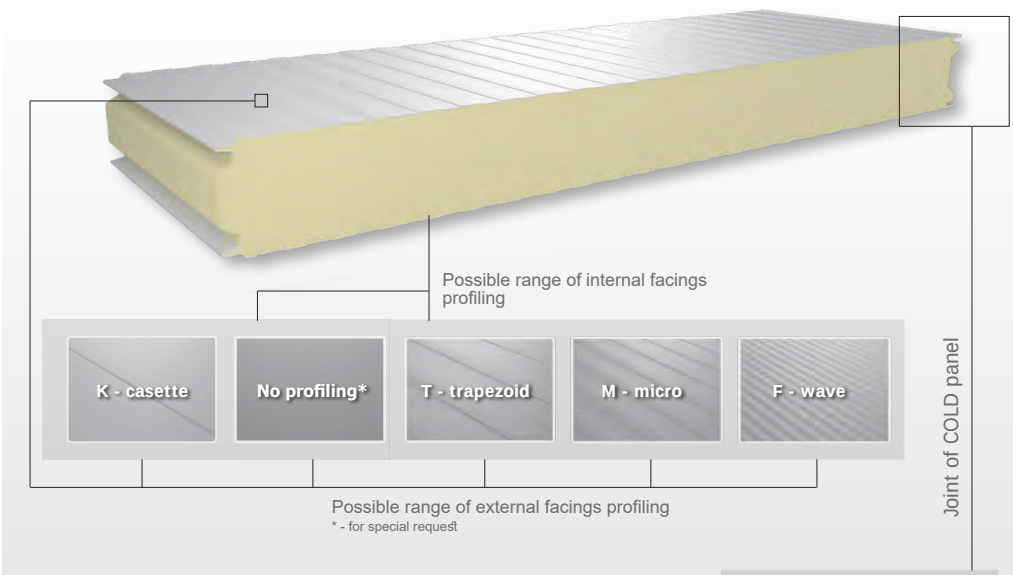
Possible range of facing profiling



*flat profilation is available only for thickness 0,6 mm

The panel is designed for cold storage such as storage rooms, icehouses and freezers.

Range of facings profiling	
Symbol/thickness	PIRTECH
PWS-PIR-CH 120	
PWS-PIR-CH 160	
PWS-PIR-CH 180	
PWS-PIR-CH 200	
PWS-PIR-CH 220	

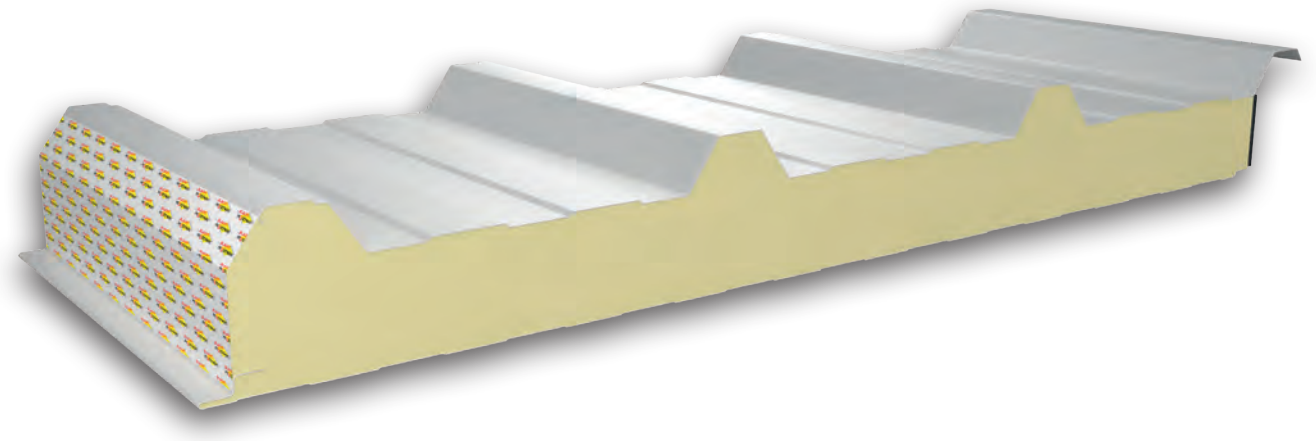


Type of the panel	Possible range of facings profiling	
	external	internal
PWS-PIR-CH	No profiling*	No profiling*
	T - trapezoid	T - trapezoid
	M - micro	-
	K - casette	-
	F - wave	-

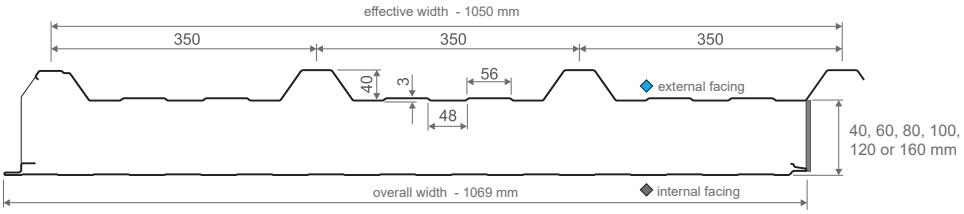
Basic technical data					
core thickness (mm)	120	160	180	200	220
effective width (mm)	1000, 1150				
overall width (mm)	1019, 1169				
thickness of facings (mm)	external 0,40-0,70 / internal 0,40-0,63				
polyurethane foam core	with a density of 40 (±3) kg/m^3				
colours facings	colour palette				
min. panel length (mb)	2,0				
max panel length (mb)	18 **(depending on colour - see on page 16)**				
weight 1 m^2 (kg)	12,4	14,0	14,8	15,6	16,4
anti-corrosion coating	polyester gloss, PMG, polyurethane, hybrid PURMAX, HPS 200				
declared heat transfer coefficient λ_D (W/mK)	0,0218 temp. +5°C	0,0213 temp. 0°C	0,0213 temp. 0°C	0,0207 temp. -5°C	0,0207 temp. -5°C
heat transfer coefficient - Uc (W/m^{2}K)	0,18	0,14	0,12	0,11	0,10
reaction to fire	B-s1, d0				
flame propagation	NRO				
fire resistance	EI30 (o↔i) / EI60 (o↔i) / EI45				
water permeability	Class A - 1200Pa				
air permeability	50 Pa 0,07 m^3/hm^2 -50 Pa 0,01 m^3/hm^2				
water vapour permeability	impermeable				
sound insulation (dB)	26 (-4;-5) - 220 mm **For the whole family** 25 (-3;-5)				
tensile strength (MPa)	0,070				
shear strength (MPa)	0,075				
shear modulus (MPa)	2,9				
compressive strength (MPa)	0,095				

*non-standard dimention modules

Weights were determined for thickness of facings 0,50/0,40 mm and only for standard modules

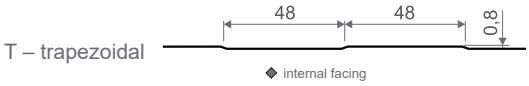


cross-section

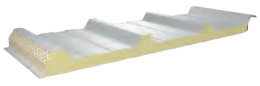
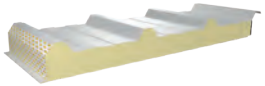


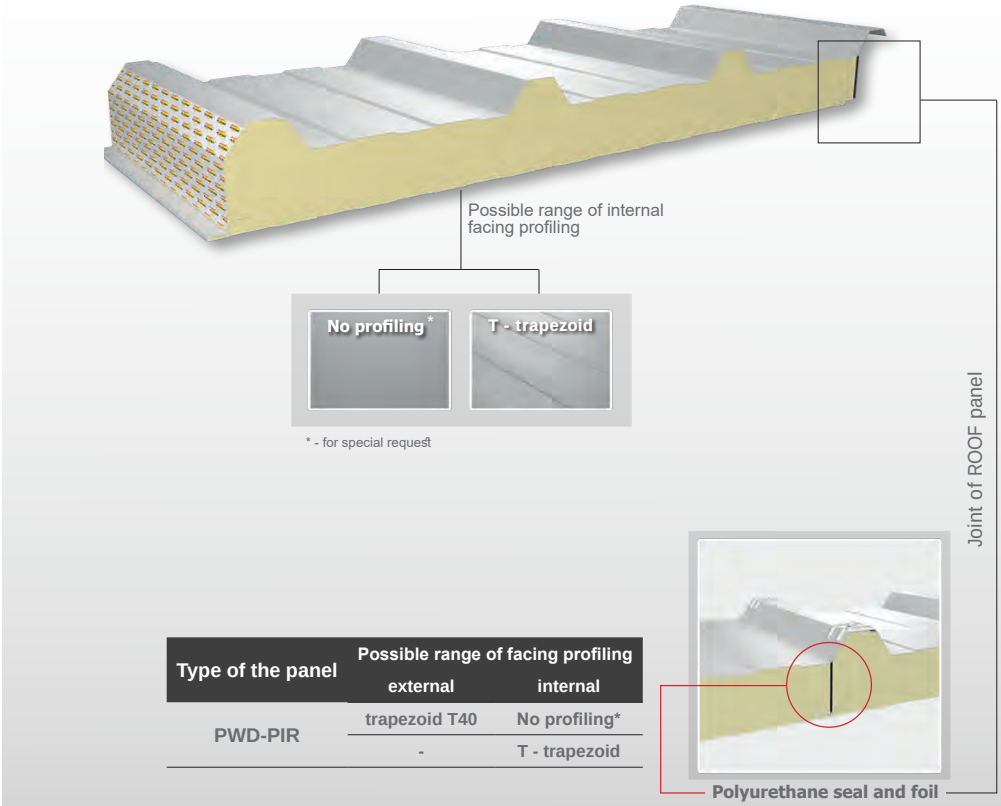
Possible range of facings profiling

possible range of facings profiling



Universal roof panel for all types of roofs and various slope accounts for different types of buildings.

Range of facings profiling	
Symbol / thickness	PIRTECH
PWD-PIR 40	
PWD-PIR 60	
PWD-PIR 80	
PWD-PIR 100	
PWD-PIR 120	
PWD-PIR 160	



Type of the panel	Possible range of facing profiling	
	external	internal
PWD-PIR	trapezoid T40	No profiling*
	-	T - trapezoid

Basic technical data						
core thickness (mm)	40	60	80	100	120	160
effective width (mm)	1050					
overall width (mm)	1069					
thickness of facings (mm)	external 0,40-0,70 / internal 0,40-0,63					
polyurethane foam core (kg/m^3)	37 (±2)		40 (±3)			
colours facing	colour palette					
min. panel length (mb)	2,0					
max panel length (mb)	18 **(depending on colour - see on page 16)**					
weight 1 m^2 (kg)	9,9	10,7	11,5	12,3	13,1	14,7
anti-corrosion coating	polyester gloss / mat, polyurethane, HPS 200					
declared heat transfer coefficient λ_D (W/mK)	0,022					
heat transfer coefficient - Uc (W/m^{2}K)	0,53	0,37	0,28	0,22	0,18	0,13
reaction to fire	B-s2, d0				B-s1, d0	
external exposure to fire	B_{roof}					
fire resistance				REI30 / RE60		
water permeability	Class A - 1200Pa					
air permeability	50 Pa 0,02 m^3/hm^2 -50 Pa 0,37 m^3/hm^2					
water vapour permeability	impermeable					
sound insulation (dB)	23 (0;-3) - 40 mm 24 (-2;-4) - 120 mm **For the whole family** 23 (-1;-3)					
absorption index α_w	0,20					
tensile strength (MPa)	0,070					
shear strength (MPa)	0,075					
shear modulus (MPa)	2,9					
compressive strength (MPa)	0,095					

Weights were determined for thickness of facings 0,50/0,40 mm

RECOMMENDATION FOR PANEL LENGTH SELECTION

Thermal loads recommendation

It was required to take under consideration the thermal differences between the facings of sandwich panels. Gradient of temperature between external temperature T_1 and internal temperature T_2 is addicted to various factors:

- Dedication of the building (temperature range in the building – T_2)
- Location of the building – situated towards the sun or not
- Colour of the external facing (T_2)

There are four different winter temperature stages depends on latitude, level above the sea and distance from the sea on a European Continent (T_1 – external facing):

- 0, -10°C,
- 0, -20°C, (e. g. Poland)
- 0, -30°C, (e. g. The Countries of Scandinavia)

External facing temperature for roof panels with snow caps is 0°C.
Outer winter temperature for calculations was assumed as -20°C.

External facing`s temperature T1 , reach maximum in the summer and depends on the colour and surface reflection rate of the facing. T1 , which has minimal value for calculations of carrying capacity (ULS) and that value is adequate to calculations of critical state of exploiting (SLS), assumed accordingly:

- Very light colours RG = 75-90 T_1 = +55°C
- Light colours RG = 40-74 T_1 = +65°C
- Dark colours RG = 8-39 T_1 = +80°C

RG- reflection rate against magnesium oxide = 100%

All the colours are available in palette of Pruszyński Sp. z o. o. They are divided into three different groups that are listed in the table below.

Length of panels

Allowed maximal length of panels depends on facing's colour (minimum length – 2 r.m.) for single span beam panels.

Division acc. to PN-EN 14509	Maximum* length - ROOF	Maximum* length - WALL	Colours acc. to RAL and RR basic offer
grupa I very light colours	max 18** r. m.	max 18** r. m.	RAL 9010, RAL 9002
grupa II light colours	max 15 r. m.	max 12 r. m.	RAL 1002, RAL 1021, RAL 7000, RAL 7035, RAL 9006
grupa III dark colours	max 12 r. m.	max 9 r. m.	RAL 3005, RAL 3016, RAL 8016, RAL 8017,RAL 8004, RAL 7016, RAL 7024, RAL 5010, RAL 6005, RAL 6029, RAL 9007, RAL 9005, RR032, RR028

** length follow limitation of maximum elongation/shortage of panel*
*** for panels PWS-PIR-ST 40, 50, 60 max. length 13,5 mb*
for panels PWS-PIR-PL 40 max. length 13,5 mb
for panels PWD-PIR 40 max. length 13,5 m, PWD-PIR 60 max. length 16,0 mb

Usage
Dark colours

ATTENTION – III group – dark colours

Taking under consideration, that dark colours from 3rd group are under the biggest thermal loads than any other colours, it is important to fulfil following conditions during design:

- Mounting method and static system have to be consistent with tables of maximum loads and spans (gratified criteria –carrying capacity, critical state of exploiting)*
- Limit maximal panel length according to producers recommendations**
- Considerate montage temperature***
- Facings without profiling can be applied/mounted only in single span beam wall panel

* Single span beam systems are recommended for dark coloured panels; otherwise on support intermediate beams may occur unacceptable plastic deformation of external facing. Mentioned waved deformation is compatible with norm PN-EN 14509 considering margin of error but may be the reason for costumer complaint.

** Panel maximum lengths should be compatible with instructions provided from the producer depending on type of the panel and its application (roof/wall) – check PANELS LENGTH. On dark coloured panels, longer than mentioned in table on page 16, Pruszyński company do not grant guarantee, unless such application has been agreed on paper earlier with empowered representative worker from Pruszyński company.

*** Mounting panels in dark colours is possible in temperatures from 10°C to 35°C. This condition has to be absolutely respected. Mounting at temperatures lower than 10°C (or higher than 35°C) may resolve in deformation and permanent damaging of panel at the time when building is exploited (under special circumstances also during montage). Deformations and damages are triggered by large elongation of facings (e. g. in summer temperatures) in comparison to primary length (facing lengths during mounting). Mounting panels in light and very light colours is possible at temperatures from 5°C to 35°C.

Immediately before installation, (~ 20 min.) The dark cladding of the sandwich panel (usually it is the external cladding), should not be exposed to direct sunlight, as it may cause excessive heating of the panel / cladding and its deformation.

The wall panels in the package are placed with the external side up. It is recommended to shield the facade cladding in the package from the sun. If the panels are stored in direct sunlight at the construction site, it is recommended to cover the first panel in the package on top. Subsequent panels taken from the package should not be exposed to the sun for more than 20 minutes before fixing them.

Non-complying to previous guidelines may have an effect on panel as surface deformations and local loose of stability, what producer would not take responsibility for. In case of desire for colours that do not figure on our list please contact with our technical advisor. Change of colour of panel must be approved by the designer.

TABLES OF LOADS
PWS-PIR-ST wall panels
Permissible loads and spans

Based on the conducted research and calculations, there were compiled tables of permissible loads and span of wall and roof sandwich panels.
The following assumptions were made for the development of the tables:

- evenly distributed and thermal loads are applied to the boards; thermal load is caused by the difference in temperature between the external and internal facing

- The characteristic value of the modulus of elasticity G is 3.2 MPa

- The wall and roof wall bends should not exceed 1/100 of the span

- The outside temperature was assumed as follows for PWS-PIR-ST boards

a) in summer +55°C, +65°C, +80°C, which corresponds to colour groups: very bright, light dark
b) winter -20°C

- the internal temperature of the room was taken as follows for the plates PWS-PIR-ST

a) in summer +25°C
b) winter +20°C

- the width of the extreme supports is not less than 40 mm, the width of the intermediate supports is not less than 60 mm

- ULS values should be compared with design loads
- SLS values should be compared with the characteristic loads

Table 1 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-ST 40, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 40

Group colours	Conditions load		Load kN/m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	4,63	3,46	2,55	1,92	1,47	1,11	0,84	0,65	0,51	0,38	0,27	0,19	0,13	0,09	0,05	0,02	0,00	0,00	0,00	0,00
		ULS	3,39	2,82	2,42	2,12	1,88	1,70	1,53	1,40	1,19	1,02	0,89	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,38	0,35
	suction	SLS	4,63	3,46	2,55	1,92	1,47	1,15	0,91	0,73	0,58	0,46	0,37	0,30	0,25	0,20	0,16	0,12	0,09	0,00	0,00	0,00
		ULS	3,39	2,82	2,42	2,12	1,88	1,67	1,37	1,16	0,98	0,84	0,74	0,65	0,57	0,51	0,45	0,41	0,38	0,33	0,32	0,29
Group II colours bright	pressure	SLS	4,63	3,46	2,55	1,92	1,47	1,11	0,84	0,65	0,51	0,38	0,27	0,19	0,13	0,09	0,05	0,02	0,00	0,00	0,00	0,00
		ULS	3,39	2,82	2,42	2,12	1,88	1,70	1,53	1,40	1,19	1,02	0,89	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,38	0,35
	suction	SLS	4,63	3,46	2,55	1,92	1,47	1,11	0,84	0,65	0,51	0,38	0,27	0,19	0,13	0,09	0,05	0,02	0,00	0,00	0,00	0,00
		ULS	3,39	2,82	2,42	2,12	1,88	1,67	1,37	1,16	0,98	0,84	0,74	0,65	0,57	0,51	0,45	0,41	0,38	0,33	0,32	0,29
Grupa III colours dark	pressure	SLS	4,63	3,46	2,55	1,92	1,47	1,11	0,84	0,65	0,51	0,38	0,27	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	3,39	2,82	2,42	2,12	1,88	1,70	1,53	1,40	1,19	1,02	0,89	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,38	0,35
	suction	SLS	4,63	3,46	2,48	1,77	1,28	0,92	0,60	0,37	0,22	0,11	0,03	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	3,39	2,82	2,42	2,12	1,88	1,67	1,37	1,16	0,98	0,84	0,74	0,65	0,57	0,51	0,45	0,41	0,38	0,33	0,32	0,29

Table 2 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-ST 50, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 50

Group colours	Conditions load		Load kN/m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	5,84	4,80	3,60	2,76	2,14	1,69	1,35	1,07	0,85	0,68	0,55	0,45	0,37	0,28	0,22	0,16	0,12	0,09	0,06	0,04
		ULS	4,28	3,57	3,06	2,67	2,37	2,13	1,94	1,76	1,50	1,29	1,13	0,99	0,87	0,78	0,69	0,63	0,57	0,53	0,48	0,44
	suction	SLS	5,84	4,80	3,60	2,76	2,14	1,69	1,35	1,10	0,90	0,74	0,62	0,51	0,43	0,36	0,30	0,25	0,21	0,18	0,15	0,12
		ULS	4,28	3,57	3,06	2,67	2,37	2,10	1,73	1,46	1,23	1,07	0,93	0,81	0,72	0,65	0,57	0,53	0,47	0,42	0,39	0,36
Group II colours bright	pressure	SLS	5,84	4,80	3,60	2,76	2,14	1,69	1,35	1,07	0,85	0,68	0,55	0,45	0,37	0,28	0,22	0,16	0,12	0,09	0,06	0,04
		ULS	4,28	3,57	3,06	2,67	2,37	2,13	1,94	1,76	1,50	1,29	1,13	0,99	0,87	0,78	0,69	0,63	0,57	0,53	0,48	0,44
	suction	SLS	5,84	4,80	3,60	2,76	2,14	1,69	1,35	1,07	0,85	0,68	0,55	0,45	0,37	0,28	0,22	0,16	0,12	0,09	0,06	0,04
		ULS	4,28	3,57	3,06	2,67	2,37	2,10	1,73	1,46	1,23	1,07	0,93	0,81	0,72	0,65	0,57	0,53	0,47	0,42	0,39	0,36
Grupa III colours dark	pressure	SLS	5,84	4,80	3,60	2,76	2,14	1,69	1,35	1,07	0,85	0,68	0,55	0,45	0,37	0,28	0,22	0,00	0,00	0,00	0,00	0,00
		ULS	4,28	3,57	3,06	2,67	2,37	2,13	1,94	1,76	1,50	1,29	1,13	0,99	0,87	0,78	0,69	0,63	0,57	0,53	0,48	0,44
	suction	SLS	5,84	4,80	3,60	2,76	2,07	1,57	1,20	0,93	0,68	0,47	0,33	0,21	0,13	0,07	0,02	0,00	0,00	0,00	0,00	0,00
		ULS	4,28	3,57	3,06	2,67	2,37	2,10	1,73	1,46	1,23	1,07	0,93	0,81	0,72	0,65	0,57	0,53	0,47	0,42	0,39	0,36

Table 3 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-ST 60, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 60

Group colours	Conditions load		Load kN/m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	7,05	5,87	4,73	3,66	2,88	2,29	1,85	1,51	1,25	1,03	0,84	0,69	0,58	0,48	0,40	0,34	0,28	0,22	0,18	0,14
		ULS	5,16	4,31	3,69	3,23	2,87	2,58	2,34	2,12	1,80	1,56	1,35	1,19	1,05	0,95	0,84	0,77	0,69	0,63	0,57	0,53
	suction	SLS	7,05	5,87	4,73	3,66	2,88	2,29	1,85	1,51	1,25	1,04	0,87	0,74	0,63	0,54	0,46	0,39	0,34	0,29	0,25	0,22
		ULS	5,16	4,31	3,69	3,23	2,87	2,52	2,09	1,76	1,49	1,29	1,13	0,98	0,87	0,78	0,69	0,63	0,57	0,51	0,47	0,44
Group II colours bright	pressure	SLS	7,05	5,87	4,73	3,66	2,88	2,29	1,85	1,51	1,25	1,03	0,84	0,69	0,58	0,48	0,40	0,34	0,28	0,22	0,18	0,14
		ULS	5,16	4,31	3,69	3,23	2,87	2,58	2,34	2,12	1,80	1,56	1,35	1,19	1,05	0,95	0,84	0,77	0,69	0,63	0,57	0,53
	suction	SLS	7,05	5,87	4,73	3,66	2,88	2,29	1,85	1,51	1,25	1,03	0,84	0,69	0,58	0,48	0,40	0,34	0,28	0,22	0,18	0,14
		ULS	5,16	4,31	3,69	3,23	2,87	2,52	2,09	1,76	1,49	1,29	1,13	0,98	0,87	0,78	0,69	0,63	0,57	0,51	0,47	0,44
Group III colours dark	pressure	SLS	7,05	5,87	4,73	3,66	2,88	2,29	1,85	1,51	1,25	1,03	0,84	0,69	0,58	0,48	0,40	0,34	0,28	0,22	0,18	0,00
		ULS	5,16	4,31	3,69	3,23	2,87	2,58	2,34	2,12	1,80	1,56	1,35	1,19	1,05	0,95	0,84	0,77	0,69	0,63	0,57	0,53
	suction	SLS	7,05	5,87	4,73	3,66	2,88	2,29	1,78	1,40	1,11	0,89	0,71	0,53	0,39	0,29	0,20	0,14	0,09	0,05	0,01	0,00
		ULS	5,16	4,31	3,69	3,23	2,87	2,52	2,09	1,76	1,49	1,29	1,13	0,98	0,87	0,78	0,69	0,63	0,57	0,51	0,47	0,44

Table 4 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-ST 80, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 80

Group colours	Conditions load		Load kN/m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	9,47	7,89	6,77	5,62	4,49	3,64	2,98	2,46	2,05	1,72	1,46	1,24	1,07	0,92	0,79	0,68	0,58	0,50	0,44	0,38
		ULS	6,95	5,79	4,97	4,34	3,86	3,47	3,15	2,85	2,43	2,09	1,82	1,61	1,41	1,26	1,13	1,02	0,93	0,84	0,77	0,71
	suction	SLS	9,47	7,89	6,77	5,62	4,49	3,64	2,98	2,46	2,05	1,72	1,46	1,24	1,07	0,92	0,80	0,70	0,61	0,54	0,48	0,43
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,00	1,73	1,50	1,32	1,17	1,04	0,93	0,84	0,77	0,69	0,63	0,59
Group II colours bright	pressure	SLS	9,47	7,89	6,77	5,62	4,49	3,64	2,98	2,46	2,05	1,72	1,46	1,24	1,07	0,92	0,79	0,68	0,58	0,50	0,44	0,38
		ULS	6,95	5,79	4,97	4,34	3,86	3,47	3,15	2,85	2,43	2,09	1,82	1,61	1,41	1,26	1,13	1,02	0,93	0,84	0,77	0,71
	suction	SLS	9,47	7,89	6,77	5,62	4,49	3,64	2,98	2,46	2,05	1,72	1,46	1,24	1,07	0,92	0,79	0,68	0,58	0,50	0,44	0,38
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,00	1,73	1,50	1,32	1,17	1,04	0,93	0,84	0,77	0,69	0,63	0,59
Group III colours dark	pressure	SLS	9,47	7,89	6,77	5,62	4,49	3,64	2,98	2,46	2,05	1,72	1,46	1,24	1,07	0,92	0,79	0,68	0,58	0,50	0,44	0,38
		ULS	6,95	5,79	4,97	4,34	3,86	3,47	3,15	2,85	2,43	2,09	1,82	1,61	1,41	1,26	1,13	1,02	0,93	0,84	0,77	0,71
	suction	SLS	9,47	7,89	6,77	5,62	4,49	3,64	2,98	2,46	2,05	1,69	1,39	1,16	0,97	0,81	0,68	0,58	0,46	0,37	0,29	0,23
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,00	1,73	1,50	1,32	1,17	1,04	0,93	0,84	0,77	0,69	0,63	0,59

Table 5 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-ST 100, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	11,90	9,91	8,50	7,43	6,24	5,11	4,23	3,53	2,97	2,51	2,14	1,84	1,59	1,38	1,20	1,05	0,93	0,82	0,73	0,64
		ULS	8,00	6,66	5,72	5,00	4,44	3,99	3,63	3,33	3,05	2,63	2,28	2,01	1,77	1,59	1,43	1,28	1,16	1,07	0,98	0,89
	suction	SLS	11,90	9,91	8,50	7,43	6,24	5,11	4,23	3,53	2,97	2,51	2,14	1,84	1,59	1,38	1,20	1,05	0,93	0,82	0,73	0,65
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,47	1,31	1,17	1,05	0,96	0,87	0,80	0,74
Group II colours bright	pressure	SLS	11,90	9,91	8,50	7,43	6,24	5,11	4,23	3,53	2,97	2,51	2,14	1,84	1,59	1,38	1,20	1,05	0,93	0,82	0,73	0,64
		ULS	8,00	6,66	5,72	5,00	4,44	3,99	3,63	3,33	3,05	2,63	2,28	2,01	1,77	1,59	1,43	1,28	1,16	1,07	0,98	0,89
	suction	SLS	11,90	9,91	8,50	7,43	6,24	5,11	4,23	3,53	2,97	2,51	2,14	1,84	1,59	1,38	1,20	1,05	0,93	0,82	0,73	0,64
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,47	1,31	1,17	1,05	0,96	0,87	0,80	0,74
Group III colours dark	pressure	SLS	11,90	9,91	8,50	7,43	6,24	5,11	4,23	3,53	2,97	2,51	2,14	1,84	1,59	1,38	1,20	1,05	0,93	0,82	0,73	0,64
		ULS	8,00	6,66	5,72	5,00	4,44	3,99	3,63	3,33	3,05	2,63	2,28	2,01	1,77	1,59	1,43	1,28	1,16	1,07	0,98	0,89
	suction	SLS	11,90	9,91	8,50	7,43	6,24	5,11	4,23	3,53	2,97	2,51	2,14	1,84	1,57	1,34	1,14	0,98	0,85	0,73	0,64	0,55
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,47	1,31	1,17	1,05	0,96	0,87	0,80	0,74

Table 6 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-ST 120, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,42	2,15	1,91	1,71	1,55	1,40	1,28	1,17	1,07
	suction	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,28	1,16	1,05	0,96	0,89
Group II colours bright	pressure	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,42	2,15	1,91	1,71	1,55	1,40	1,28	1,17	1,07
	suction	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,28	1,16	1,05	0,96	0,89
Group III colours dark	pressure	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,42	2,15	1,91	1,71	1,55	1,40	1,28	1,17	1,07
	suction	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,27	1,11	0,97	0,85
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,28	1,16	1,05	0,96	0,89

Table 7 Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-ST 40, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

wall panel PWS-PIR-ST 40

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	3,66	3,02	2,57	1,87	1,39	1,08	0,86	0,70	0,59	0,50	0,43	0,37	0,32	0,28	0,25	0,22	0,20	0,18	0,16	0,15
		ULS	2,43	2,03	1,73	1,52	1,35	1,23	1,13	1,04	0,96	0,89	0,84	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,38	0,35
	suction	SLS	3,74	3,08	2,62	2,28	2,02	1,73	1,39	1,14	0,96	0,81	0,70	0,61	0,54	0,47	0,42	0,38	0,33	0,29	0,26	0,23
		ULS	1,88	1,56	1,34	1,17	1,05	0,95	0,87	0,80	0,74	0,69	0,65	0,60	0,57	0,51	0,45	0,41	0,38	0,34	0,32	0,29
Group II colours bright	pressure	SLS	3,66	3,02	2,57	1,87	1,39	1,08	0,86	0,70	0,59	0,50	0,43	0,37	0,32	0,28	0,25	0,22	0,20	0,18	0,16	0,15
		ULS	2,43	2,03	1,73	1,52	1,35	1,23	1,13	1,04	0,96	0,89	0,84	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,38	0,35
	suction	SLS	3,66	3,02	2,57	2,24	1,99	1,58	1,27	1,04	0,87	0,74	0,64	0,55	0,49	0,43	0,38	0,34	0,31	0,28	0,25	0,23
		ULS	1,76	1,47	1,26	1,11	1,01	0,90	0,83	0,77	0,72	0,66	0,63	0,59	0,56	0,51	0,45	0,41	0,38	0,34	0,32	0,29
Group III colours dark	pressure	SLS	3,66	3,02	2,57	1,87	1,39	1,08	0,86	0,70	0,59	0,50	0,43	0,37	0,32	0,28	0,25	0,22	0,20	0,18	0,16	0,15
		ULS	2,43	2,03	1,73	1,52	1,35	1,23	1,13	1,04	0,96	0,89	0,84	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,38	0,35
	suction	SLS	3,54	2,92	2,50	2,18	1,76	1,37	1,08	0,87	0,71	0,60	0,51	0,44	0,38	0,33	0,29	0,26	0,23	0,21	0,19	0,17
		ULS	1,58	1,34	1,16	1,04	0,93	0,86	0,78	0,72	0,68	0,63	0,60	0,57	0,54	0,51	0,45	0,41	0,38	0,34	0,32	0,29

Table 8 Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-ST 50, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 50

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	4,71	3,87	3,28	2,51	1,85	1,42	1,13	0,92	0,76	0,64	0,55	0,48	0,42	0,37	0,32	0,29	0,26	0,23	0,21	0,19
		ULS	3,17	2,61	2,22	1,95	1,74	1,56	1,43	1,32	1,22	1,13	1,07	0,99	0,87	0,78	0,69	0,63	0,57	0,53	0,48	0,44
	suction	SLS	4,80	3,94	3,34	2,91	2,57	2,26	1,81	1,48	1,24	1,05	0,90	0,78	0,69	0,61	0,54	0,48	0,44	0,40	0,36	0,33
		ULS	1,85	1,53	1,31	1,14	1,02	0,93	0,84	0,78	0,72	0,68	0,63	0,60	0,56	0,53	0,51	0,48	0,47	0,43	0,40	0,37
Group II colours bright	pressure	SLS	4,71	3,87	3,28	2,51	1,85	1,42	1,13	0,92	0,76	0,64	0,55	0,48	0,42	0,37	0,32	0,29	0,26	0,23	0,21	0,19
		ULS	3,17	2,61	2,22	1,95	1,74	1,56	1,43	1,32	1,22	1,13	1,07	0,99	0,87	0,78	0,69	0,63	0,57	0,53	0,48	0,44
	suction	SLS	4,71	3,87	3,28	2,86	2,53	2,08	1,66	1,35	1,13	0,95	0,82	0,71	0,62	0,55	0,49	0,44	0,39	0,36	0,33	0,30
		ULS	1,71	1,41	1,22	1,08	0,96	0,87	0,81	0,75	0,69	0,65	0,62	0,57	0,54	0,51	0,50	0,47	0,45	0,43	0,40	0,37
Group III colours dark	pressure	SLS	4,71	3,87	3,28	2,51	1,85	1,42	1,13	0,92	0,76	0,64	0,55	0,48	0,42	0,37	0,32	0,29	0,26	0,23	0,21	0,19
		ULS	3,17	2,61	2,22	1,95	1,74	1,56	1,43	1,32	1,22	1,13	1,07	0,99	0,87	0,78	0,69	0,63	0,57	0,53	0,48	0,44
	suction	SLS	4,57	3,76	3,20	2,79	2,35	1,80	1,43	1,16	0,95	0,79	0,67	0,57	0,49	0,43	0,38	0,34	0,30	0,27	0,25	0,22
		ULS	1,50	1,25	1,10	0,98	0,89	0,81	0,75	0,69	0,65	0,62	0,57	0,54	0,51	0,50	0,47	0,45	0,44	0,41	0,40	0,37

Table 9 Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-ST 60, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	5,78	4,74	4,01	3,22	2,35	1,80	1,42	1,15	0,95	0,80	0,68	0,59	0,51	0,45	0,40	0,36	0,32	0,29	0,26	0,24
		ULS	3,92	3,21	2,73	2,39	2,12	1,91	1,74	1,59	1,47	1,38	1,29	1,19	1,05	0,95	0,84	0,77	0,69	0,63	0,57	0,53
	suction	SLS	5,89	4,82	4,08	3,54	3,13	2,80	2,25	1,84	1,53	1,29	1,11	0,96	0,84	0,74	0,66	0,59	0,53	0,48	0,44	0,40
		ULS	1,82	1,50	1,28	1,13	1,01	0,90	0,83	0,77	0,71	0,66	0,62	0,59	0,56	0,53	0,50	0,48	0,45	0,44	0,43	0,41
Group II colours bright	pressure	SLS	5,78	4,74	4,01	3,22	2,35	1,80	1,42	1,15	0,95	0,80	0,68	0,59	0,51	0,45	0,40	0,36	0,32	0,29	0,26	0,24
		ULS	3,92	3,21	2,73	2,39	2,12	1,91	1,74	1,59	1,47	1,38	1,29	1,19	1,05	0,95	0,84	0,77	0,69	0,63	0,57	0,53
	suction	SLS	5,78	4,74	4,01	3,49	3,08	2,61	2,07	1,68	1,40	1,18	1,01	0,87	0,76	0,67	0,60	0,54	0,48	0,44	0,40	0,36
		ULS	1,67	1,37	1,19	1,04	0,93	0,86	0,78	0,72	0,68	0,63	0,59	0,56	0,53	0,51	0,48	0,45	0,44	0,43	0,41	0,40
Group III colours dark	pressure	SLS	5,78	4,74	4,01	3,22	2,35	1,80	1,42	1,15	0,95	0,80	0,68	0,59	0,51	0,45	0,40	0,36	0,32	0,29	0,26	0,24
		ULS	3,92	3,21	2,73	2,39	2,12	1,91	1,74	1,59	1,47	1,38	1,29	1,19	1,05	0,95	0,84	0,77	0,69	0,63	0,57	0,53
	suction	SLS	5,62	4,61	3,91	3,40	2,99	2,28	1,80	1,45	1,20	1,00	0,84	0,72	0,62	0,54	0,47	0,42	0,38	0,34	0,31	0,28
		ULS	1,40	1,19	1,02	0,92	0,83	0,77	0,71	0,66	0,62	0,59	0,56	0,53	0,50	0,48	0,45	0,44	0,43	0,41	0,40	0,38

Table 10 Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-ST 80, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 80

Group colours	Conditions load		Load kN/m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	7,97	6,51	5,50	4,77	3,48	2,62	2,05	1,64	1,35	1,13	0,96	0,82	0,72	0,63	0,56	0,50	0,44	0,40	0,36	0,33
		ULS	4,74	3,87	3,29	2,85	2,54	2,28	2,07	1,89	1,76	1,64	1,53	1,44	1,35	1,26	1,13	1,02	0,93	0,84	0,77	0,71
	suction	SLS	8,10	6,61	5,59	4,84	4,26	3,81	3,21	2,60	2,15	1,80	1,54	1,33	1,16	1,02	0,91	0,81	0,73	0,66	0,60	0,55
		ULS	1,77	1,44	1,23	1,08	0,96	0,87	0,80	0,74	0,68	0,63	0,60	0,57	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40
Group II colours bright	pressure	SLS	7,97	6,51	5,50	4,77	3,48	2,62	2,05	1,64	1,35	1,13	0,96	0,82	0,72	0,63	0,56	0,50	0,44	0,40	0,36	0,33
		ULS	4,74	3,87	3,29	2,85	2,54	2,28	2,07	1,89	1,76	1,64	1,53	1,44	1,35	1,26	1,13	1,02	0,93	0,84	0,77	0,71
	suction	SLS	7,97	6,51	5,50	4,77	4,21	3,77	2,96	2,39	1,97	1,65	1,41	1,21	1,06	0,93	0,83	0,74	0,66	0,60	0,54	0,50
		ULS	1,58	1,29	1,11	0,98	0,87	0,80	0,74	0,68	0,63	0,60	0,56	0,53	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38
Group III colours dark	pressure	SLS	7,97	6,51	5,50	4,77	3,48	2,62	2,05	1,64	1,35	1,13	0,96	0,82	0,72	0,63	0,56	0,50	0,44	0,40	0,36	0,33
		ULS	4,74	3,87	3,29	2,85	2,54	2,28	2,07	1,89	1,76	1,64	1,53	1,44	1,35	1,26	1,13	1,02	0,93	0,84	0,77	0,71
	suction	SLS	7,79	6,36	5,38	4,66	4,12	3,33	2,60	2,08	1,71	1,43	1,21	1,03	0,88	0,77	0,67	0,59	0,53	0,47	0,43	0,39
		ULS	1,02	0,86	0,78	0,74	0,72	0,69	0,65	0,60	0,57	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37	0,35

Table 11 Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-ST 100, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 100

Group colours	Conditions load		Load kN/m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	10,21	8,33	7,03	6,08	4,77	3,55	2,75	2,19	1,78	1,48	1,25	1,07	0,93	0,81	0,72	0,64	0,57	0,52	0,47	0,43
		ULS	5,28	4,31	3,63	3,15	2,79	2,51	2,27	2,09	1,92	1,79	1,67	1,58	1,49	1,40	1,34	1,26	1,16	1,07	0,98	0,89
	suction	SLS	10,35	8,45	7,13	6,16	5,42	4,84	4,26	3,42	2,81	2,35	2,00	1,72	1,50	1,32	1,17	1,04	0,93	0,84	0,77	0,70
		ULS	1,73	1,41	1,19	1,04	0,93	0,84	0,77	0,71	0,66	0,62	0,57	0,54	0,51	0,50	0,47	0,45	0,43	0,41	0,40	0,38
Group II colours bright	pressure	SLS	10,21	8,33	7,03	6,08	4,77	3,55	2,75	2,19	1,78	1,48	1,25	1,07	0,93	0,81	0,72	0,64	0,57	0,52	0,47	0,43
		ULS	5,28	4,31	3,63	3,15	2,79	2,51	2,27	2,09	1,92	1,79	1,67	1,58	1,49	1,40	1,34	1,26	1,16	1,07	0,98	0,89
	suction	SLS	10,21	8,33	7,03	6,08	5,35	4,78	3,95	3,17	2,59	2,16	1,83	1,58	1,37	1,20	1,06	0,95	0,85	0,77	0,70	0,63
		ULS	1,52	1,23	1,05	0,92	0,83	0,75	0,69	0,65	0,60	0,57	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37
Group III colours dark	pressure	SLS	10,21	8,33	7,03	6,08	4,77	3,55	2,75	2,19	1,78	1,48	1,25	1,07	0,93	0,81	0,72	0,64	0,57	0,52	0,47	0,43
		ULS	5,28	4,31	3,63	3,15	2,79	2,51	2,27	2,09	1,92	1,79	1,67	1,58	1,49	1,40	1,34	1,26	1,16	1,07	0,98	0,89
	suction	SLS	10,00	8,16	6,88	5,96	5,25	4,52	3,49	2,78	2,26	1,88	1,59	1,36	1,18	1,02	0,89	0,78	0,69	0,62	0,56	0,50
		ULS	0,74	0,56	0,50	0,50	0,50	0,50	0,51	0,51	0,51	0,50	0,47	0,45	0,44	0,41	0,40	0,38	0,37	0,37	0,35	0,34

Table 12 Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-ST 120, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 120

Group colours	Conditions load		Load kN/m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	12,49	10,19	8,58	7,41	6,22	4,59	3,52	2,79	2,26	1,87	1,57	1,34	1,16	1,01	0,89	0,79	0,71	0,63	0,57	0,52
		ULS	5,31	4,31	3,63	3,14	2,78	2,49	2,25	2,07	1,91	1,77	1,67	1,56	1,47	1,40	1,32	1,26	1,20	1,14	1,10	1,05
	suction	SLS	12,64	10,32	8,69	7,50	6,60	5,89	5,32	4,32	3,53	2,94	2,49	2,13	1,85	1,62	1,43	1,28	1,15	1,03	0,94	0,85
		ULS	1,70	1,37	1,16	1,01	0,89	0,81	0,74	0,68	0,63	0,59	0,56	0,53	0,50	0,48	0,45	0,44	0,43	0,41	0,40	0,38
Group II colours bright	pressure	SLS	12,49	10,19	8,58	7,41	6,22	4,59	3,52	2,79	2,26	1,87	1,57	1,34	1,16	1,01	0,89	0,79	0,71	0,63	0,57	0,52
		ULS	5,31	4,31	3,63	3,14	2,78	2,49	2,25	2,07	1,91	1,77	1,67	1,56	1,47	1,40	1,32	1,26	1,20	1,14	1,10	1,05
	suction	SLS	12,49	10,19	8,58	7,41	6,52	5,82	5,04	4,01	3,26	2,71	2,29	1,96	1,70	1,49	1,31	1,17	1,04	0,94	0,85	0,78
		ULS	1,44	1,11	0,93	0,84	0,78	0,71	0,65	0,60	0,57	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37	0,35
Group III colours dark	pressure	SLS	12,49	10,19	8,58	7,41	6,22	4,59	3,52	2,79	2,26	1,87	1,57	1,34	1,16	1,01	0,89	0,79	0,71	0,63	0,57	0,52
		ULS	5,31	4,31	3,63	3,14	2,78	2,49	2,25	2,07	1,91	1,77	1,67	1,56	1,47	1,40	1,32	1,26	1,20	1,14	1,10	1,05
	suction	SLS	12,26	9,99	8,42	7,27	6,40	5,72	4,49	3,54	2,87	2,37	1,99	1,70	1,47	1,28	1,12	0,99	0,87	0,78	0,70	0,63
		ULS	0,50	0,32	0,26	0,28	0,29	0,32	0,35	0,37	0,38	0,40	0,41	0,41	0,40	0,38	0,38	0,37	0,35	0,34	0,34	0,32

Table 13 Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-ST 40, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 40

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	3,65	3,04	2,62	2,19	1,69	1,34	1,10	0,91	0,77	0,66	0,57	0,50	0,44	0,39	0,35	0,31	0,28	0,24	0,21	0,18
		ULS	2,42	2,04	1,77	1,58	1,41	1,28	1,17	1,08	1,01	0,93	0,87	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,38	0,35
	suction	SLS	3,73	3,10	2,66	2,33	2,06	1,67	1,36	1,12	0,94	0,79	0,66	0,57	0,48	0,42	0,36	0,32	0,28	0,24	0,22	0,19
		ULS	2,21	1,86	1,59	1,41	1,25	1,13	1,04	0,95	0,87	0,81	0,74	0,65	0,57	0,51	0,45	0,41	0,38	0,34	0,32	0,29
Group II colours bright	pressure	SLS	3,65	3,04	2,62	2,19	1,69	1,34	1,10	0,91	0,77	0,66	0,57	0,50	0,44	0,39	0,35	0,31	0,28	0,24	0,21	0,18
		ULS	2,42	2,04	1,77	1,58	1,41	1,28	1,17	1,08	1,01	0,93	0,87	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,38	0,35
	suction	SLS	3,65	3,04	2,62	2,30	2,05	1,67	1,36	1,12	0,94	0,79	0,66	0,57	0,48	0,42	0,36	0,32	0,28	0,24	0,21	0,18
		ULS	2,15	1,80	1,56	1,38	1,23	1,11	1,02	0,93	0,87	0,81	0,74	0,65	0,57	0,51	0,45	0,41	0,38	0,34	0,32	0,29
Group III colours dark	pressure	SLS	3,65	3,04	2,62	2,19	1,69	1,34	1,10	0,91	0,77	0,66	0,57	0,50	0,44	0,39	0,35	0,31	0,28	0,24	0,21	0,18
		ULS	2,42	2,04	1,77	1,58	1,41	1,28	1,17	1,08	1,01	0,93	0,87	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,38	0,35
	suction	SLS	3,52	2,95	2,55	2,24	2,01	1,67	1,36	1,12	0,94	0,79	0,66	0,55	0,46	0,39	0,33	0,28	0,24	0,21	0,18	0,14
		ULS	2,04	1,73	1,50	1,34	1,20	1,08	0,99	0,92	0,84	0,80	0,74	0,65	0,57	0,51	0,45	0,41	0,38	0,34	0,32	0,29

Table 14 Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-ST 50, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 50

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	4,65	3,87	3,32	2,84	2,18	1,73	1,40	1,16	0,98	0,84	0,72	0,63	0,56	0,49	0,44	0,40	0,36	0,33	0,30	0,27
		ULS	3,11	2,61	2,27	2,00	1,79	1,62	1,49	1,37	1,28	1,19	1,11	0,99	0,87	0,78	0,69	0,63	0,57	0,53	0,48	0,44
	suction	SLS	4,75	3,95	3,38	2,96	2,63	2,36	1,95	1,63	1,37	1,16	0,98	0,84	0,73	0,63	0,55	0,48	0,42	0,38	0,33	0,30
		ULS	2,18	1,83	1,58	1,38	1,23	1,13	1,02	0,93	0,87	0,81	0,75	0,71	0,68	0,63	0,57	0,53	0,47	0,43	0,40	0,37
Group II colours bright	pressure	SLS	4,65	3,87	3,32	2,84	2,18	1,73	1,40	1,16	0,98	0,84	0,72	0,63	0,56	0,49	0,44	0,40	0,36	0,33	0,30	0,27
		ULS	3,11	2,61	2,27	2,00	1,79	1,62	1,49	1,37	1,28	1,19	1,11	0,99	0,87	0,78	0,69	0,63	0,57	0,53	0,48	0,44
	suction	SLS	4,65	3,87	3,32	2,91	2,60	2,34	1,95	1,63	1,37	1,16	0,98	0,84	0,73	0,63	0,55	0,48	0,42	0,38	0,33	0,30
		ULS	2,10	1,77	1,53	1,35	1,22	1,10	1,01	0,92	0,86	0,80	0,75	0,71	0,66	0,63	0,57	0,53	0,47	0,43	0,40	0,37
Group III colours dark	pressure	SLS	4,65	3,87	3,32	2,84	2,18	1,73	1,40	1,16	0,98	0,84	0,72	0,63	0,56	0,49	0,44	0,40	0,36	0,33	0,30	0,27
		ULS	3,11	2,61	2,27	2,00	1,79	1,62	1,49	1,37	1,28	1,19	1,11	0,99	0,87	0,78	0,69	0,63	0,57	0,53	0,48	0,44
	suction	SLS	4,50	3,76	3,24	2,85	2,54	2,20	1,78	1,48	1,25	1,07	0,92	0,81	0,71	0,63	0,55	0,47	0,41	0,35	0,31	0,27
		ULS	1,98	1,68	1,46	1,29	1,17	1,07	0,98	0,90	0,83	0,78	0,74	0,69	0,65	0,62	0,57	0,53	0,47	0,43	0,40	0,37

Table 15 Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-ST 60, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	5,67	4,71	4,04	3,52	2,69	2,12	1,72	1,42	1,20	1,02	0,88	0,77	0,68	0,60	0,54	0,48	0,44	0,40	0,36	0,33
		ULS	3,80	3,20	2,76	2,43	2,18	1,97	1,80	1,67	1,55	1,44	1,35	1,19	1,05	0,95	0,84	0,77	0,69	0,63	0,57	0,53
	suction	SLS	5,78	4,80	4,10	3,59	3,19	2,87	2,59	2,17	1,84	1,57	1,34	1,16	1,00	0,87	0,77	0,67	0,59	0,53	0,47	0,42
		ULS	2,15	1,80	1,56	1,37	1,23	1,11	1,01	0,93	0,86	0,80	0,75	0,71	0,66	0,63	0,60	0,57	0,54	0,51	0,47	0,44
Group II colours bright	pressure	SLS	5,67	4,71	4,04	3,52	2,69	2,12	1,72	1,42	1,20	1,02	0,88	0,77	0,68	0,60	0,54	0,48	0,44	0,40	0,36	0,33
		ULS	3,80	3,20	2,76	2,43	2,18	1,97	1,80	1,67	1,55	1,44	1,35	1,19	1,05	0,95	0,84	0,77	0,69	0,63	0,57	0,53
	suction	SLS	5,67	4,71	4,04	3,53	3,15	2,84	2,46	2,04	1,72	1,47	1,27	1,11	0,98	0,87	0,77	0,67	0,59	0,53	0,47	0,42
		ULS	2,06	1,73	1,50	1,32	1,19	1,08	0,99	0,92	0,84	0,78	0,74	0,69	0,66	0,62	0,59	0,56	0,54	0,51	0,47	0,44
Group III colours dark	pressure	SLS	5,67	4,71	4,04	3,52	2,69	2,12	1,72	1,42	1,20	1,02	0,88	0,77	0,68	0,60	0,54	0,48	0,44	0,40	0,36	0,33
		ULS	3,80	3,20	2,76	2,43	2,18	1,97	1,80	1,67	1,55	1,44	1,35	1,19	1,05	0,95	0,84	0,77	0,69	0,63	0,57	0,53
	suction	SLS	5,50	4,58	3,94	3,46	3,08	2,70	2,19	1,81	1,52	1,30	1,12	0,98	0,86	0,77	0,68	0,61	0,56	0,50	0,46	0,41
		ULS	1,92	1,64	1,43	1,26	1,14	1,04	0,95	0,89	0,81	0,77	0,72	0,68	0,65	0,60	0,57	0,54	0,53	0,50	0,47	0,44

Table 16 Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-ST 80, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 80

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	7,75	6,41	5,48	4,79	3,76	2,95	2,38	1,96	1,64	1,40	1,21	1,05	0,92	0,82	0,73	0,66	0,59	0,54	0,49	0,45
		ULS	5,24	4,37	3,75	3,30	2,96	2,67	2,43	2,24	2,07	1,92	1,80	1,61	1,41	1,26	1,13	1,02	0,93	0,84	0,77	0,71
	suction	SLS	7,89	6,52	5,56	4,86	4,31	3,88	3,52	3,01	2,53	2,16	1,86	1,63	1,43	1,27	1,13	1,02	0,92	0,84	0,76	0,70
		ULS	2,10	1,76	1,52	1,34	1,20	1,08	0,99	0,92	0,84	0,78	0,74	0,69	0,66	0,62	0,59	0,56	0,54	0,51	0,50	0,47
Group II colours bright	pressure	SLS	7,75	6,41	5,48	4,79	3,76	2,95	2,38	1,96	1,64	1,40	1,21	1,05	0,92	0,82	0,73	0,66	0,59	0,54	0,49	0,45
		ULS	5,24	4,37	3,75	3,30	2,96	2,67	2,43	2,24	2,07	1,92	1,80	1,61	1,41	1,26	1,13	1,02	0,93	0,84	0,77	0,71
	suction	SLS	7,75	6,41	5,48	4,79	4,26	3,83	3,40	2,80	2,35	2,01	1,73	1,51	1,33	1,18	1,05	0,95	0,85	0,78	0,71	0,65
		ULS	1,98	1,67	1,44	1,28	1,16	1,05	0,96	0,89	0,83	0,77	0,72	0,68	0,65	0,60	0,57	0,56	0,53	0,50	0,48	0,47
Group III colours dark	pressure	SLS	7,75	6,41	5,48	4,79	3,76	2,95	2,38	1,96	1,64	1,40	1,21	1,05	0,92	0,82	0,73	0,66	0,59	0,54	0,49	0,45
		ULS	5,24	4,37	3,75	3,30	2,96	2,67	2,43	2,24	2,07	1,92	1,80	1,61	1,41	1,26	1,13	1,02	0,93	0,84	0,77	0,71
	suction	SLS	7,53	6,25	5,35	4,69	4,17	3,76	3,03	2,49	2,09	1,78	1,53	1,34	1,18	1,04	0,93	0,83	0,75	0,68	0,62	0,57
		ULS	1,80	1,53	1,35	1,20	1,08	0,99	0,92	0,84	0,80	0,74	0,69	0,66	0,62	0,59	0,56	0,54	0,51	0,50	0,47	0,45

Table 17 Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-ST 100, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	9,87	8,15	6,94	6,06	4,92	3,83	3,07	2,52	2,11	1,79	1,54	1,34	1,18	1,04	0,93	0,83	0,75	0,68	0,62	0,57
		ULS	5,82	4,85	4,16	3,65	3,24	2,93	2,67	2,45	2,27	2,10	1,97	1,85	1,74	1,59	1,43	1,28	1,16	1,07	0,98	0,89
	suction	SLS	10,04	8,28	7,05	6,14	5,44	4,89	4,44	3,86	3,23	2,75	2,37	2,07	1,82	1,61	1,44	1,29	1,17	1,06	0,97	0,88
		ULS	2,06	1,71	1,49	1,31	1,17	1,07	0,98	0,90	0,83	0,78	0,72	0,68	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47
Group II colours bright	pressure	SLS	9,87	8,15	6,94	6,06	4,92	3,83	3,07	2,52	2,11	1,79	1,54	1,34	1,18	1,04	0,93	0,83	0,75	0,68	0,62	0,57
		ULS	5,82	4,85	4,16	3,65	3,24	2,93	2,67	2,45	2,27	2,10	1,97	1,85	1,74	1,59	1,43	1,28	1,16	1,07	0,98	0,89
	suction	SLS	9,87	8,15	6,94	6,06	5,38	4,84	4,38	3,60	3,01	2,56	2,21	1,92	1,69	1,50	1,33	1,20	1,08	0,98	0,89	0,82
		ULS	1,92	1,61	1,40	1,25	1,11	1,02	0,93	0,86	0,80	0,75	0,71	0,66	0,63	0,60	0,57	0,54	0,51	0,50	0,48	0,45
Group III colours dark	pressure	SLS	9,87	8,15	6,94	6,06	4,92	3,83	3,07	2,52	2,11	1,79	1,54	1,34	1,18	1,04	0,93	0,83	0,75	0,68	0,62	0,57
		ULS	5,82	4,85	4,16	3,65	3,24	2,93	2,67	2,45	2,27	2,10	1,97	1,85	1,74	1,59	1,43	1,28	1,16	1,07	0,98	0,89
	suction	SLS	9,62	7,95	6,79	5,94	5,28	4,75	3,92	3,21	2,69	2,28	1,96	1,70	1,50	1,32	1,18	1,06	0,96	0,87	0,79	0,72
		ULS	1,71	1,46	1,28	1,14	1,04	0,95	0,87	0,81	0,77	0,72	0,68	0,63	0,60	0,57	0,54	0,53	0,50	0,48	0,47	0,44

Table 18 Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-ST 120, thickness of facings 0.5 / 0.4 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-ST 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	12,03	9,91	8,43	7,34	6,16	4,77	3,81	3,11	2,59	2,19	1,88	1,64	1,43	1,27	1,13	1,01	0,91	0,83	0,75	0,69
		ULS	5,82	4,83	4,14	3,63	3,24	2,93	2,66	2,45	2,27	2,10	1,97	1,85	1,74	1,65	1,56	1,49	1,40	1,28	1,17	1,07
	suction	SLS	12,22	10,06	8,55	7,44	6,59	5,92	5,37	4,74	3,96	3,37	2,90	2,52	2,21	1,96	1,75	1,57	1,41	1,28	1,17	1,07
		ULS	2,01	1,68	1,44	1,28	1,14	1,04	0,95	0,89	0,81	0,77	0,72	0,68	0,63	0,60	0,57	0,54	0,53	0,50	0,48	0,47
Group II colours bright	pressure	SLS	12,03	9,91	8,43	7,34	6,16	4,77	3,81	3,11	2,59	2,19	1,88	1,64	1,43	1,27	1,13	1,01	0,91	0,83	0,75	0,69
		ULS	5,82	4,83	4,14	3,63	3,24	2,93	2,66	2,45	2,27	2,10	1,97	1,85	1,74	1,65	1,56	1,49	1,40	1,28	1,17	1,07
	suction	SLS	12,03	9,91	8,43	7,34	6,51	5,85	5,31	4,43	3,70	3,14	2,70	2,34	2,06	1,82	1,62	1,45	1,31	1,19	1,08	0,99
		ULS	1,86	1,56	1,35	1,20	1,08	0,99	0,90	0,84	0,78	0,74	0,69	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47	0,45
Group III colours dark	pressure	SLS	12,03	9,91	8,43	7,34	6,16	4,77	3,81	3,11	2,59	2,19	1,88	1,64	1,43	1,27	1,13	1,01	0,91	0,83	0,75	0,69
		ULS	5,82	4,83	4,14	3,63	3,24	2,93	2,66	2,45	2,27	2,10	1,97	1,85	1,74	1,65	1,56	1,49	1,40	1,28	1,17	1,07
	suction	SLS	11,74	9,68	8,25	7,20	6,39	5,75	4,85	3,97	3,30	2,80	2,40	2,08	1,82	1,61	1,44	1,29	1,16	1,05	0,96	0,88
		ULS	1,64	1,38	1,22	1,08	0,99	0,90	0,84	0,78	0,74	0,69	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47	0,45	0,44

TABLES OF LOADS PWS-PIR-PL wall panels Permissible loads and spans

Based on the conducted research and calculations, there were compiled tables of permissible loads and span of wall and roof sandwich panels. The following assumptions were made for the development of the tables:

- evenly distributed and thermal loads are applied to the boards; thermal load which is caused by the difference in temperature between the external and internal facings;

- the characteristic value of the modulus of elasticity G is 3.2 MPa

- the wall and roof wall bends should not exceed 1/100 of the span

- the outside temperature was taken as follows for PWS-PIR-PL panels

a) in summer + 55°C, + 65°C, + 80°C, which corresponds to colour groups: very bright, light, dark
b) winter -20°C

- the internal temperature of the room was taken as follows for the plates PWS-PIR-PL

a) in summer +25°C
b) winter +20°C

- the width of the extreme supports is not less than 40 mm, the width of the intermediate supports is not less than 60 mm

- ULS values should be compared with design loads
- SLS values should be compared with the characteristic loads

Table 1 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-PL 60, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	7,04	5,86	5,00	3,91	3,10	2,49	2,02	1,66	1,37	1,14	0,93	0,77	0,64	0,54	0,45	0,38	0,31	0,25	0,20	0,16
		ULS	5,16	4,29	3,68	3,23	2,87	2,58	2,34	2,15	1,91	1,64	1,43	1,25	1,11	0,99	0,89	0,80	0,72	0,66	0,60	0,56
	suction	SLS	7,04	5,86	5,00	3,91	3,10	2,49	2,02	1,66	1,37	1,15	0,97	0,82	0,70	0,61	0,52	0,44	0,38	0,33	0,28	0,25
		ULS	5,16	4,29	3,68	3,23	2,76	2,24	1,85	1,55	1,32	1,14	0,99	0,87	0,77	0,69	0,62	0,56	0,50	0,45	0,42	0,38
Group II colours bright	pressure	SLS	7,04	5,86	5,00	3,91	3,10	2,49	2,02	1,66	1,37	1,14	0,93	0,77	0,64	0,54	0,45	0,38	0,31	0,25	0,20	0,16
		ULS	5,16	4,29	3,68	3,23	2,87	2,58	2,34	2,15	1,91	1,64	1,43	1,25	1,11	0,99	0,89	0,80	0,72	0,66	0,60	0,56
	suction	SLS	7,04	5,86	5,00	3,91	3,10	2,49	2,02	1,66	1,37	1,14	0,93	0,77	0,64	0,54	0,45	0,38	0,31	0,25	0,20	0,16
		ULS	5,16	4,29	3,68	3,23	2,76	2,24	1,85	1,55	1,32	1,14	0,99	0,87	0,77	0,69	0,62	0,56	0,50	0,45	0,42	0,38
Group III colours dark	pressure	SLS	7,04	5,86	5,00	3,91	3,10	2,49	2,02	1,66	1,37	1,14	0,93	0,77	0,64	0,54	0,45	0,38	0,31	0,25	0,20	0,00
		ULS	5,16	4,29	3,68	3,23	2,87	2,58	2,34	2,15	1,91	1,64	1,43	1,25	1,11	0,99	0,89	0,80	0,72	0,66	0,60	0,56
	suction	SLS	7,04	5,86	5,00	3,91	3,10	2,48	1,94	1,54	1,23	0,99	0,79	0,59	0,44	0,32	0,23	0,15	0,10	0,05	0,02	0,00
		ULS	5,16	4,29	3,68	3,23	2,76	2,24	1,85	1,55	1,32	1,14	0,99	0,87	0,77	0,69	0,62	0,56	0,50	0,45	0,42	0,38

Table 2 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-PL 80, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 80

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	9,46	7,88	6,76	5,91	4,79	3,90	3,22	2,67	2,24	1,89	1,61	1,38	1,19	1,03	0,88	0,76	0,65	0,57	0,49	0,43
		ULS	6,93	5,78	4,95	4,34	3,86	3,47	3,15	2,88	2,55	2,21	1,92	1,68	1,49	1,34	1,19	1,08	0,98	0,89	0,81	0,75
	suction	SLS	9,46	7,88	6,76	5,91	4,79	3,90	3,22	2,67	2,24	1,89	1,61	1,38	1,19	1,03	0,90	0,78	0,69	0,61	0,54	0,48
		ULS	5,72	4,77	4,08	3,57	3,18	2,85	2,48	2,09	1,77	1,53	1,34	1,17	1,04	0,92	0,83	0,75	0,68	0,62	0,56	0,51
Group II colours bright	pressure	SLS	9,46	7,88	6,76	5,91	4,79	3,90	3,22	2,67	2,24	1,89	1,61	1,38	1,19	1,03	0,88	0,76	0,65	0,57	0,49	0,43
		ULS	6,93	5,78	4,95	4,34	3,86	3,47	3,15	2,88	2,55	2,21	1,92	1,68	1,49	1,34	1,19	1,08	0,98	0,89	0,81	0,75
	suction	SLS	9,46	7,88	6,76	5,91	4,79	3,90	3,22	2,67	2,24	1,89	1,61	1,38	1,19	1,03	0,88	0,76	0,65	0,57	0,49	0,43
		ULS	5,72	4,77	4,08	3,57	3,18	2,85	2,48	2,09	1,77	1,53	1,34	1,17	1,04	0,92	0,83	0,75	0,68	0,62	0,56	0,51
Group III colours dark	pressure	SLS	9,46	7,88	6,76	5,91	4,79	3,90	3,22	2,67	2,24	1,89	1,61	1,38	1,19	1,03	0,88	0,76	0,65	0,57	0,49	0,43
		ULS	6,93	5,78	4,95	4,34	3,86	3,47	3,15	2,88	2,55	2,21	1,92	1,68	1,49	1,34	1,19	1,08	0,98	0,89	0,81	0,75
	suction	SLS	9,46	7,88	6,76	5,91	4,79	3,90	3,22	2,67	2,24	1,85	1,54	1,28	1,07	0,90	0,76	0,64	0,52	0,41	0,33	0,26
		ULS	5,72	4,77	4,08	3,57	3,18	2,85	2,48	2,09	1,77	1,53	1,34	1,17	1,04	0,92	0,83	0,75	0,68	0,62	0,56	0,51

Table 3 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-PL 100, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	11,89	9,90	8,49	7,43	6,60	5,45	4,54	3,81	3,22	2,74	2,35	2,02	1,75	1,53	1,34	1,18	1,04	0,92	0,82	0,72
		ULS	8,00	6,66	5,72	5,00	4,44	3,99	3,63	3,33	3,08	2,76	2,40	2,12	1,88	1,67	1,50	1,35	1,23	1,11	1,02	0,93
	suction	SLS	11,89	9,90	8,49	7,43	6,60	5,45	4,54	3,81	3,22	2,74	2,35	2,02	1,75	1,53	1,34	1,18	1,04	0,92	0,82	0,73
		ULS	5,72	4,77	4,08	3,57	3,18	2,85	2,60	2,39	2,19	1,92	1,67	1,47	1,29	1,16	1,04	0,93	0,84	0,77	0,71	0,65
Group II colours bright	pressure	SLS	11,89	9,90	8,49	7,43	6,60	5,45	4,54	3,81	3,22	2,74	2,35	2,02	1,75	1,53	1,34	1,18	1,04	0,92	0,82	0,72
		ULS	8,00	6,66	5,72	5,00	4,44	3,99	3,63	3,33	3,08	2,76	2,40	2,12	1,88	1,67	1,50	1,35	1,23	1,11	1,02	0,93
	suction	SLS	11,89	9,90	8,49	7,43	6,60	5,45	4,54	3,81	3,22	2,74	2,35	2,02	1,75	1,53	1,34	1,18	1,04	0,92	0,82	0,72
		ULS	5,72	4,77	4,08	3,57	3,18	2,85	2,60	2,39	2,19	1,92	1,67	1,47	1,29	1,16	1,04	0,93	0,84	0,77	0,71	0,65
Group III colours dark	pressure	SLS	11,89	9,90	8,49	7,43	6,60	5,45	4,54	3,81	3,22	2,74	2,35	2,02	1,75	1,53	1,34	1,18	1,04	0,92	0,82	0,72
		ULS	8,00	6,66	5,72	5,00	4,44	3,99	3,63	3,33	3,08	2,76	2,40	2,12	1,88	1,67	1,50	1,35	1,23	1,11	1,02	0,93
	suction	SLS	11,89	9,90	8,49	7,43	6,60	5,45	4,54	3,81	3,22	2,74	2,35	2,02	1,74	1,48	1,27	1,09	0,95	0,82	0,71	0,62
		ULS	5,72	4,77	4,08	3,57	3,18	2,85	2,60	2,39	2,19	1,92	1,67	1,47	1,29	1,16	1,04	0,93	0,84	0,77	0,71	0,65

Table 4 Maximum load of **SINGLE SPAN BEAM** wall panel PWS-PIR-PL 120, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	14,31	11,92	10,22	8,94	7,95	7,08	5,94	5,03	4,28	3,67	3,16	2,74	2,39	2,09	1,84	1,62	1,44	1,28	1,14	1,02
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,25	2,01	1,80	1,62	1,47	1,34	1,23	1,13
	suction	SLS	14,31	11,92	10,22	8,94	7,95	7,08	5,94	5,03	4,28	3,67	3,16	2,74	2,39	2,09	1,84	1,62	1,44	1,28	1,14	1,02
		ULS	5,72	4,77	4,08	3,57	3,18	2,85	2,60	2,39	2,19	2,04	1,91	1,77	1,56	1,40	1,25	1,13	1,02	0,93	0,86	0,78
Group II colours bright	pressure	SLS	14,31	11,92	10,22	8,94	7,95	7,08	5,94	5,03	4,28	3,67	3,16	2,74	2,39	2,09	1,84	1,62	1,44	1,28	1,14	1,02
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,25	2,01	1,80	1,62	1,47	1,34	1,23	1,13
	suction	SLS	14,31	11,92	10,22	8,94	7,95	7,08	5,94	5,03	4,28	3,67	3,16	2,74	2,39	2,09	1,84	1,62	1,44	1,28	1,14	1,02
		ULS	5,72	4,77	4,08	3,57	3,18	2,85	2,60	2,39	2,19	2,04	1,91	1,77	1,56	1,40	1,25	1,13	1,02	0,93	0,86	0,78
Group III colours dark	pressure	SLS	14,31	11,92	10,22	8,94	7,95	7,08	5,94	5,03	4,28	3,67	3,16	2,74	2,39	2,09	1,84	1,62	1,44	1,28	1,14	1,02
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,25	2,01	1,80	1,62	1,47	1,34	1,23	1,13
	suction	SLS	14,31	11,92	10,22	8,94	7,95	7,08	5,94	5,03	4,28	3,67	3,16	2,74	2,39	2,09	1,84	1,62	1,41	1,24	1,09	0,96
		ULS	5,72	4,77	4,08	3,57	3,18	2,85	2,60	2,39	2,19	2,04	1,91	1,77	1,56	1,40	1,25	1,13	1,02	0,93	0,86	0,78

Table 5 Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-PL 60, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	5,78	4,73	4,01	2,92	2,10	1,51	1,13	0,87	0,69	0,56	0,46	0,39	0,33	0,28	0,25	0,22	0,19	0,17	0,15	0,14
		ULS	3,89	3,18	2,70	2,36	2,10	1,89	1,73	1,58	1,46	1,37	1,28	1,20	1,11	0,99	0,89	0,80	0,72	0,66	0,60	0,56
	suction	SLS	5,90	4,82	4,08	3,54	3,12	2,69	2,13	1,73	1,43	1,20	1,03	0,89	0,78	0,68	0,61	0,54	0,49	0,44	0,40	0,37
		ULS	2,01	1,65	1,41	1,23	1,10	0,99	0,90	0,84	0,78	0,72	0,68	0,65	0,60	0,57	0,54	0,51	0,50	0,45	0,43	0,38
Group II colours bright	pressure	SLS	5,78	4,73	4,01	2,92	2,10	1,51	1,13	0,87	0,69	0,56	0,46	0,39	0,33	0,28	0,25	0,22	0,19	0,17	0,15	0,14
		ULS	3,89	3,18	2,70	2,36	2,10	1,89	1,73	1,58	1,46	1,37	1,28	1,20	1,11	0,99	0,89	0,80	0,72	0,66	0,60	0,56
	suction	SLS	5,78	4,73	4,01	3,48	3,07	2,44	1,92	1,55	1,28	1,07	0,92	0,79	0,69	0,61	0,54	0,48	0,43	0,39	0,35	0,32
		ULS	1,85	1,52	1,31	1,14	1,02	0,93	0,86	0,80	0,74	0,69	0,65	0,62	0,59	0,56	0,53	0,50	0,48	0,45	0,43	0,38
Group III colours dark	pressure	SLS	5,78	4,73	4,01	2,92	2,10	1,51	1,13	0,87	0,69	0,56	0,46	0,39	0,33	0,28	0,25	0,22	0,19	0,17	0,15	0,14
		ULS	3,89	3,18	2,70	2,36	2,10	1,89	1,73	1,58	1,46	1,37	1,28	1,20	1,11	0,99	0,89	0,80	0,72	0,66	0,60	0,56
	suction	SLS	5,61	4,59	3,89	3,38	2,65	1,88	1,39	1,07	0,84	0,68	0,56	0,47	0,39	0,34	0,29	0,26	0,23	0,20	0,18	0,16
		ULS	1,59	1,31	1,13	1,01	0,92	0,84	0,77	0,72	0,68	0,63	0,60	0,57	0,54	0,51	0,50	0,47	0,45	0,44	0,43	0,38

Table 6 Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-PL 80, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 80

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	7,99	6,52	5,51	4,47	3,17	2,35	1,77	1,35	1,06	0,85	0,69	0,58	0,49	0,42	0,36	0,32	0,28	0,25	0,22	0,20
		ULS	4,73	3,86	3,26	2,84	2,51	2,25	2,04	1,88	1,74	1,62	1,52	1,43	1,34	1,26	1,19	1,08	0,98	0,89	0,81	0,75
	suction	SLS	8,13	6,63	5,60	4,84	4,26	3,81	3,06	2,46	2,03	1,70	1,44	1,24	1,08	0,95	0,84	0,75	0,67	0,61	0,55	0,50
		ULS	1,97	1,61	1,37	1,19	1,05	0,96	0,87	0,81	0,75	0,69	0,66	0,62	0,59	0,56	0,53	0,50	0,48	0,47	0,44	0,43
Group II colours bright	pressure	SLS	7,99	6,52	5,51	4,47	3,17	2,35	1,77	1,35	1,06	0,85	0,69	0,58	0,49	0,42	0,36	0,32	0,28	0,25	0,22	0,20
		ULS	4,73	3,86	3,26	2,84	2,51	2,25	2,04	1,88	1,74	1,62	1,52	1,43	1,34	1,26	1,19	1,08	0,98	0,89	0,81	0,75
	suction	SLS	7,99	6,52	5,51	4,76	4,20	3,58	2,78	2,23	1,82	1,52	1,29	1,11	0,96	0,84	0,75	0,66	0,60	0,54	0,49	0,44
		ULS	1,77	1,44	1,23	1,07	0,96	0,87	0,80	0,75	0,69	0,65	0,62	0,59	0,56	0,53	0,50	0,48	0,47	0,44	0,43	0,41
Group III colours dark	pressure	SLS	7,99	6,52	5,51	4,47	3,17	2,35	1,77	1,35	1,06	0,85	0,69	0,58	0,49	0,42	0,36	0,32	0,28	0,25	0,22	0,20
		ULS	4,73	3,86	3,26	2,84	2,51	2,25	2,04	1,88	1,74	1,62	1,52	1,43	1,34	1,26	1,19	1,08	0,98	0,89	0,81	0,75
	suction	SLS	7,79	6,36	5,37	4,65	4,10	3,03	2,22	1,68	1,31	1,04	0,85	0,70	0,59	0,50	0,43	0,38	0,33	0,29	0,26	0,23
		ULS	1,22	0,98	0,87	0,81	0,78	0,75	0,69	0,65	0,62	0,59	0,56	0,53	0,50	0,48	0,47	0,44	0,43	0,41	0,40	0,38

Table 7

Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-PL 100, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	10,25	8,36	7,04	6,08	4,41	3,24	2,47	1,93	1,50	1,19	0,97	0,80	0,67	0,57	0,49	0,43	0,37	0,33	0,29	0,26
		ULS	5,27	4,29	3,62	3,12	2,76	2,48	2,25	2,06	1,91	1,77	1,65	1,56	1,47	1,38	1,32	1,25	1,20	1,11	1,02	0,93
	suction	SLS	10,40	8,48	7,15	6,17	5,43	4,85	4,11	3,28	2,68	2,23	1,89	1,62	1,40	1,23	1,09	0,97	0,87	0,78	0,71	0,64
		ULS	1,94	1,56	1,32	1,14	1,02	0,92	0,84	0,78	0,72	0,68	0,63	0,60	0,57	0,54	0,51	0,48	0,47	0,45	0,44	0,43
Group II colours bright	pressure	SLS	10,25	8,36	7,04	6,08	4,41	3,24	2,47	1,93	1,50	1,19	0,97	0,80	0,67	0,57	0,49	0,43	0,37	0,33	0,29	0,26
		ULS	5,27	4,29	3,62	3,12	2,76	2,48	2,25	2,06	1,91	1,77	1,65	1,56	1,47	1,38	1,32	1,25	1,20	1,11	1,02	0,93
	suction	SLS	10,25	8,36	7,04	6,08	5,35	4,78	3,75	2,98	2,42	2,01	1,70	1,45	1,25	1,10	0,97	0,86	0,77	0,69	0,63	0,57
		ULS	1,71	1,38	1,16	1,01	0,90	0,83	0,75	0,71	0,66	0,62	0,59	0,56	0,53	0,50	0,48	0,45	0,44	0,43	0,41	0,40
Group III colours dark	pressure	SLS	10,25	8,36	7,04	6,08	4,41	3,24	2,47	1,93	1,50	1,19	0,97	0,80	0,67	0,57	0,49	0,43	0,37	0,33	0,29	0,26
		ULS	5,27	4,29	3,62	3,12	2,76	2,48	2,25	2,06	1,91	1,77	1,65	1,56	1,47	1,38	1,32	1,25	1,20	1,11	1,02	0,93
	suction	SLS	10,03	8,17	6,89	5,95	5,24	4,23	3,22	2,41	1,86	1,48	1,19	0,98	0,82	0,69	0,60	0,52	0,45	0,40	0,35	0,31
		ULS	0,93	0,68	0,59	0,54	0,54	0,54	0,54	0,54	0,54	0,53	0,51	0,48	0,47	0,45	0,44	0,43	0,41	0,40	0,38	0,37

Table 8

Maximum load of **TWO SPAN BEAM** wall panel PWS-PIR-PL 120, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	12,54	10,23	8,61	7,43	5,83	4,24	3,21	2,51	2,00	1,58	1,28	1,05	0,88	0,74	0,64	0,55	0,48	0,42	0,38	0,33
		ULS	5,30	4,29	3,62	3,12	2,75	2,46	2,24	2,04	1,89	1,76	1,64	1,55	1,46	1,38	1,31	1,25	1,19	1,14	1,10	1,05
	suction	SLS	12,70	10,36	8,73	7,53	6,61	5,90	5,25	4,16	3,38	2,80	2,36	2,02	1,74	1,52	1,34	1,19	1,07	0,96	0,87	0,79
		ULS	1,91	1,53	1,29	1,11	0,98	0,89	0,81	0,75	0,69	0,65	0,62	0,57	0,54	0,53	0,50	0,48	0,45	0,44	0,43	0,41
Group II colours bright	pressure	SLS	12,54	10,23	8,61	7,43	5,83	4,24	3,21	2,51	2,00	1,58	1,28	1,05	0,88	0,74	0,64	0,55	0,48	0,42	0,38	0,33
		ULS	5,30	4,29	3,62	3,12	2,75	2,46	2,24	2,04	1,89	1,76	1,64	1,55	1,46	1,38	1,31	1,25	1,19	1,14	1,10	1,05
	suction	SLS	12,54	10,23	8,61	7,43	6,53	5,82	4,83	3,81	3,08	2,54	2,13	1,81	1,56	1,36	1,20	1,06	0,95	0,85	0,77	0,70
		ULS	1,67	1,29	1,07	0,93	0,86	0,78	0,71	0,66	0,62	0,59	0,56	0,53	0,50	0,48	0,45	0,44	0,43	0,41	0,40	0,38
Group III colours dark	pressure	SLS	12,54	10,23	8,61	7,43	5,83	4,24	3,21	2,51	2,00	1,58	1,28	1,05	0,88	0,74	0,64	0,55	0,48	0,42	0,38	0,33
		ULS	5,30	4,29	3,62	3,12	2,75	2,46	2,24	2,04	1,89	1,76	1,64	1,55	1,46	1,38	1,31	1,25	1,19	1,14	1,10	1,05
	suction	SLS	12,30	10,02	8,43	7,28	6,40	5,55	4,19	3,27	2,51	1,98	1,59	1,30	1,08	0,91	0,78	0,67	0,58	0,51	0,45	0,40
		ULS	0,69	0,44	0,34	0,32	0,32	0,34	0,37	0,38	0,40	0,41	0,43	0,43	0,44	0,41	0,41	0,40	0,38	0,37	0,35	0,35

Table 9

Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-PL 60, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	5,64	4,68	4,01	3,12	2,36	1,85	1,49	1,23	1,03	0,88	0,76	0,66	0,58	0,51	0,46	0,41	0,37	0,33	0,30	0,28
		ULS	3,74	3,14	2,70	2,39	2,15	1,94	1,77	1,64	1,52	1,41	1,34	1,25	1,11	0,99	0,89	0,80	0,72	0,66	0,60	0,56
	suction	SLS	5,76	4,78	4,08	3,57	3,17	2,86	2,48	2,05	1,72	1,47	1,27	1,11	0,98	0,87	0,78	0,70	0,63	0,57	0,52	0,47
		ULS	2,36	1,98	1,70	1,50	1,34	1,22	1,11	1,02	0,95	0,87	0,83	0,77	0,72	0,69	0,62	0,56	0,50	0,45	0,43	0,38
Group II colours bright	pressure	SLS	5,64	4,68	4,01	3,12	2,36	1,85	1,49	1,23	1,03	0,88	0,76	0,66	0,58	0,51	0,46	0,41	0,37	0,33	0,30	0,28
		ULS	3,74	3,14	2,70	2,39	2,15	1,94	1,77	1,64	1,52	1,41	1,34	1,25	1,11	0,99	0,89	0,80	0,72	0,66	0,60	0,56
	suction	SLS	5,64	4,68	4,01	3,51	3,12	2,80	2,27	1,87	1,57	1,34	1,16	1,01	0,89	0,79	0,71	0,63	0,57	0,52	0,47	0,43
		ULS	2,25	1,89	1,64	1,46	1,31	1,19	1,08	0,99	0,92	0,86	0,81	0,75	0,72	0,68	0,62	0,56	0,50	0,45	0,43	0,38
Group III colours dark	pressure	SLS	5,64	4,68	4,01	3,12	2,36	1,85	1,49	1,23	1,03	0,88	0,76	0,66	0,58	0,51	0,46	0,41	0,37	0,33	0,30	0,28
		ULS	3,74	3,14	2,70	2,39	2,15	1,94	1,77	1,64	1,52	1,41	1,34	1,25	1,11	0,99	0,89	0,80	0,72	0,66	0,60	0,56
	suction	SLS	5,44	4,53	3,90	3,42	3,05	2,42	1,95	1,61	1,33	1,13	0,96	0,83	0,73	0,64	0,57	0,51	0,46	0,42	0,38	0,35
		ULS	2,10	1,79	1,55	1,38	1,25	1,13	1,04	0,96	0,89	0,84	0,78	0,74	0,69	0,66	0,62	0,56	0,50	0,45	0,43	0,38

Table 10

Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-PL 80, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 80

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	7,72	6,38	5,45	4,46	3,34	2,60	2,08	1,71	1,43	1,21	1,04	0,91	0,79	0,70	0,63	0,56	0,50	0,46	0,41	0,38
		ULS	5,18	4,31	3,71	3,26	2,91	2,64	2,40	2,22	2,06	1,91	1,79	1,68	1,49	1,34	1,19	1,08	0,98	0,89	0,81	0,75
	suction	SLS	7,88	6,51	5,55	4,84	4,29	3,86	3,43	2,82	2,37	2,02	1,74	1,51	1,33	1,18	1,05	0,95	0,85	0,78	0,71	0,65
		ULS	2,30	1,92	1,67	1,46	1,31	1,19	1,08	0,99	0,93	0,86	0,81	0,77	0,72	0,68	0,65	0,62	0,59	0,56	0,54	0,51
Group II colours bright	pressure	SLS	7,72	6,38	5,45	4,46	3,34	2,60	2,08	1,71	1,43	1,21	1,04	0,91	0,79	0,70	0,63	0,56	0,50	0,46	0,41	0,38
		ULS	5,18	4,31	3,71	3,26	2,91	2,64	2,40	2,22	2,06	1,91	1,79	1,68	1,49	1,34	1,19	1,08	0,98	0,89	0,81	0,75
	suction	SLS	7,72	6,38	5,45	4,76	4,23	3,81	3,15	2,59	2,17	1,84	1,59	1,38	1,21	1,08	0,96	0,86	0,78	0,71	0,64	0,59
		ULS	2,18	1,83	1,58	1,40	1,26	1,14	1,05	0,96	0,90	0,84	0,78	0,74	0,71	0,66	0,63	0,60	0,57	0,56	0,53	0,51
Group III colours dark	pressure	SLS	7,72	6,38	5,45	4,46	3,34	2,60	2,08	1,71	1,43	1,21	1,04	0,91	0,79	0,70	0,63	0,56	0,50	0,46	0,41	0,38
		ULS	5,18	4,31	3,71	3,26	2,91	2,64	2,40	2,22	2,06	1,91	1,79	1,68	1,49	1,34	1,19	1,08	0,98	0,89	0,81	0,75
	suction	SLS	7,48	6,20	5,31	4,65	4,14	3,40	2,72	2,23	1,86	1,58	1,34	1,16	1,01	0,89	0,79	0,71	0,63	0,57	0,52	0,47
		ULS	1,98	1,68	1,47	1,31	1,19	1,08	0,99	0,92	0,86	0,81	0,75	0,72	0,68	0,65	0,62	0,59	0,56	0,54	0,51	0,50

Table 11

Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-PL 100, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	9,86	8,13	6,92	5,95	4,41	3,41	2,71	2,21	1,84	1,56	1,34	1,16	1,01	0,90	0,80	0,71	0,64	0,58	0,53	0,48
		ULS	5,79	4,80	4,13	3,62	3,23	2,91	2,64	2,43	2,25	2,10	1,97	1,85	1,74	1,64	1,50	1,35	1,23	1,11	1,02	0,93
	suction	SLS	10,04	8,27	7,04	6,13	5,43	4,88	4,43	3,64	3,04	2,58	2,22	1,93	1,69	1,50	1,34	1,20	1,08	0,98	0,90	0,82
		ULS	2,25	1,88	1,62	1,43	1,28	1,16	1,07	0,98	0,90	0,84	0,80	0,75	0,71	0,66	0,63	0,60	0,57	0,56	0,53	0,51
Group II colours bright	pressure	SLS	9,86	8,13	6,92	5,95	4,41	3,41	2,71	2,21	1,84	1,56	1,34	1,16	1,01	0,90	0,80	0,71	0,64	0,58	0,53	0,48
		ULS	5,79	4,80	4,13	3,62	3,23	2,91	2,64	2,43	2,25	2,10	1,97	1,85	1,74	1,64	1,50	1,35	1,23	1,11	1,02	0,93
	suction	SLS	9,86	8,13	6,92	6,04	5,35	4,82	4,08	3,34	2,79	2,36	2,03	1,76	1,55	1,37	1,22	1,09	0,99	0,89	0,81	0,75
		ULS	2,10	1,77	1,53	1,35	1,22	1,11	1,02	0,95	0,87	0,83	0,77	0,72	0,69	0,65	0,62	0,59	0,57	0,54	0,51	0,50
Group III colours dark	pressure	SLS	9,86	8,13	6,92	5,95	4,41	3,41	2,71	2,21	1,84	1,56	1,34	1,16	1,01	0,90	0,80	0,71	0,64	0,58	0,53	0,48
		ULS	5,79	4,80	4,13	3,62	3,23	2,91	2,64	2,43	2,25	2,10	1,97	1,85	1,74	1,64	1,50	1,35	1,23	1,11	1,02	0,93
	suction	SLS	9,58	7,91	6,75	5,90	5,24	4,46	3,55	2,89	2,41	2,04	1,74	1,50	1,31	1,15	1,02	0,91	0,81	0,73	0,67	0,61
		ULS	1,89	1,59	1,40	1,25	1,13	1,04	0,96	0,89	0,83	0,78	0,74	0,69	0,66	0,63	0,60	0,57	0,54	0,53	0,50	0,48

Table 12

Maximum load of **THREE SPAN BEAM** wall panel PWS-PIR-PL 120, thickness of facings 0.5 / 0.5 mm, temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-PL 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	12,03	9,89	8,41	7,32	5,57	4,27	3,38	2,75	2,28	1,92	1,64	1,42	1,24	1,10	0,97	0,87	0,78	0,71	0,65	0,59
		ULS	5,78	4,80	4,11	3,60	3,21	2,90	2,64	2,43	2,25	2,09	1,95	1,83	1,73	1,64	1,56	1,49	1,41	1,34	1,23	1,13
	suction	SLS	12,24	10,06	8,54	7,43	6,58	5,90	5,36	4,48	3,74	3,16	2,72	2,36	2,07	1,83	1,63	1,46	1,32	1,19	1,09	0,99
		ULS	2,21	1,85	1,59	1,40	1,25	1,14	1,04	0,96	0,89	0,83	0,78	0,74	0,69	0,66	0,63	0,60	0,57	0,54	0,53	0,50
Group II colours bright	pressure	SLS	12,03	9,89	8,41	7,32	5,57	4,27	3,38	2,75	2,28	1,92	1,64	1,42	1,24	1,10	0,97	0,87	0,78	0,71	0,65	0,59
		ULS	5,78	4,80	4,11	3,60	3,21	2,90	2,64	2,43	2,25	2,09	1,95	1,83	1,73	1,64	1,56	1,49	1,41	1,34	1,23	1,13
	suction	SLS	12,03	9,89	8,41	7,32	6,49	5,83	5,06	4,13	3,43	2,90	2,49	2,16	1,89	1,67	1,49	1,33	1,20	1,09	0,99	0,90
		ULS	2,04	1,71	1,49	1,31	1,19	1,08	0,99	0,92	0,86	0,80	0,75	0,71	0,68	0,63	0,60	0,59	0,56	0,53	0,51	0,50
Group III colours dark	pressure	SLS	12,03	9,89	8,41	7,32	5,57	4,27	3,38	2,75	2,28	1,92	1,64	1,42	1,24	1,10	0,97	0,87	0,78	0,71	0,65	0,59
		ULS	5,78	4,80	4,11	3,60	3,21	2,90	2,64	2,43	2,25	2,09	1,95	1,83	1,73	1,64	1,56	1,49	1,41	1,34	1,23	1,13
	suction	SLS	11,72	9,65	8,21	7,16	6,36	5,59	4,42	3,59	2,98	2,51	2,15	1,86	1,62	1,42	1,25	1,11	1,00	0,90	0,82	0,74
		ULS	1,80	1,52	1,32	1,19	1,08	0,99	0,92	0,86	0,80	0,75	0,71	0,68	0,63	0,60	0,59	0,56	0,53	0,51	0,50	0,47

TABLE OF LOADS PWD-PIR PANELS Permissible loads and spans

Based on the research and calculations performed, there were developed table of permissible loads and span of wall and roof sandwich panels.
The following assumptions were made for the development of the tables:

- evenly distributed and thermal loads are applied to the boards; thermal load is caused by the difference in temperature between the external and internal facings;

- the characteristic value of the modulus of elasticity G is 3.2 MPa

- the wall and roof wall bends should not exceed 1/100 of the span

- the outside temperature was assumed as follows for the PWD-PIR panels

a) in summer +55°C, +65°C, +80°C, which corresponds to colour groups: very bright, light, dark
b) winter -20°C

- the internal temperature of the room was taken as follows for the panels PWD-PIR

a) in summer +25°C
b) winter +20°C

- the width of the extreme supports is not less than 40 mm, the width of the intermediate supports Is not less than 60 mm

- **ULS values should be compared with design loads**
- **SLS values should be compared with the characteristic loads**

Table 1 Maximum load of **SINGLE SPAN BEAM** roof panel PWD-PIR 40, thickness of facings 0.5 / 0.4 mm
Two or three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 40

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very bright	pressure	SLS	5,59	3,73	2,62	1,86	1,30	0,92	0,57	0,31	0,13	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	3,09	2,33	1,83	1,47	1,22	1,02	0,86	0,74	0,63	0,54	0,47	0,41	0,35	0,30	0,27	0,23	0,20	0,18	0,15	0,12
	suction	SLS	5,77	3,91	2,81	2,09	1,61	1,27	1,02	0,84	0,70	0,57	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	4,49	3,47	2,79	2,33	1,97	1,70	1,49	1,26	1,08	0,93	0,83	0,74	0,66	0,59	0,54	0,50	0,45	0,42	0,39	0,36
Group II colours bright	pressure	SLS	5,59	3,73	2,62	1,86	1,30	0,92	0,57	0,31	0,13	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	3,09	2,33	1,83	1,47	1,22	1,02	0,86	0,74	0,63	0,54	0,47	0,41	0,35	0,30	0,27	0,23	0,20	0,18	0,15	0,12
	suction	SLS	5,77	3,91	2,81	2,09	1,61	1,27	0,93	0,67	0,48	0,35	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	4,32	3,33	2,69	2,22	1,89	1,62	1,43	1,25	1,08	0,93	0,83	0,74	0,66	0,59	0,54	0,50	0,45	0,42	0,39	0,36
Group III colours dark	pressure	SLS	5,59	3,73	2,62	1,86	1,30	0,92	0,57	0,31	0,13	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	3,09	2,33	1,83	1,47	1,22	1,02	0,86	0,74	0,63	0,54	0,47	0,41	0,35	0,30	0,27	0,23	0,20	0,18	0,15	0,12
	suction	SLS	5,77	3,91	2,81	2,01	1,25	0,77	0,45	0,24	0,10	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	4,08	3,12	2,51	2,09	1,77	1,52	1,32	1,17	1,04	0,93	0,83	0,74	0,66	0,59	0,54	0,50	0,45	0,42	0,39	0,36

Table 2 Maximum load of **SINGLE SPAN BEAM** roof panel PWD-PIR 60, thickness of facings 0.5 / 0.4 mm
Two or three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	7,39	5,16	3,77	2,85	2,19	1,65	1,24	0,94	0,67	0,43	0,25	0,12	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	3,90	3,06	2,51	2,10	1,79	1,53	1,32	1,16	1,01	0,89	0,78	0,69	0,62	0,54	0,48	0,44	0,38	0,35	0,30	0,27
	suction	SLS	7,59	5,36	3,97	3,05	2,39	1,92	1,56	1,29	1,08	0,92	0,79	0,68	0,60	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	5,54	4,44	3,71	3,15	2,73	2,39	1,97	1,67	1,43	1,23	1,08	0,96	0,86	0,78	0,71	0,65	0,59	0,54	0,51	0,48
Group II colours bright	pressure	SLS	7,39	5,16	3,77	2,85	2,19	1,65	1,24	0,94	0,67	0,43	0,25	0,12	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	3,90	3,06	2,51	2,10	1,79	1,53	1,32	1,16	1,01	0,89	0,78	0,69	0,62	0,54	0,48	0,44	0,38	0,35	0,30	0,27
	suction	SLS	7,59	5,36	3,97	3,05	2,39	1,92	1,56	1,29	1,08	0,84	0,65	0,51	0,40	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	5,37	4,31	3,57	3,05	2,64	2,31	1,97	1,67	1,43	1,23	1,08	0,96	0,86	0,78	0,71	0,65	0,59	0,54	0,51	0,48
Group III colours dark	pressure	SLS	7,39	5,16	3,77	2,85	2,19	1,65	1,24	0,94	0,67	0,43	0,25	0,12	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	3,90	3,06	2,51	2,10	1,79	1,53	1,32	1,16	1,01	0,89	0,78	0,69	0,62	0,54	0,48	0,44	0,38	0,35	0,30	0,27
	suction	SLS	7,59	5,36	3,97	3,05	2,39	1,79	1,25	0,87	0,59	0,40	0,25	0,15	0,07	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	5,12	4,08	3,39	2,90	2,51	2,19	1,94	1,67	1,43	1,23	1,08	0,96	0,86	0,78	0,71	0,65	0,59	0,54	0,51	0,48

Table 3 Maximum load of **SINGLE SPAN BEAM** roof panel PWD-PIR 80, thickness of facings 0.5 / 0.4 mm
Two or three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 80

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	9,25	6,65	5,00	3,86	3,04	2,43	1,96	1,54	1,21	0,96	0,76	0,54	0,37	0,23	0,12	0,03	0,00	0,00	0,00	0,00
		ULS	4,77	3,87	3,26	2,79	2,42	2,10	1,85	1,64	1,44	1,28	1,14	1,02	0,92	0,83	0,74	0,66	0,60	0,54	0,50	0,44
	suction	SLS	9,46	6,87	5,21	4,08	3,26	2,65	2,18	1,82	1,54	1,31	1,13	0,98	0,86	0,75	0,67	0,60	0,00	0,00	0,00	0,00
		ULS	5,84	4,88	4,19	3,68	3,29	2,97	2,70	2,33	1,98	1,73	1,50	1,34	1,19	1,07	0,98	0,89	0,81	0,75	0,69	0,65
Group II colours bright	pressure	SLS	9,25	6,65	5,00	3,86	3,04	2,43	1,96	1,54	1,21	0,96	0,76	0,54	0,37	0,23	0,12	0,03	0,00	0,00	0,00	0,00
		ULS	4,77	3,87	3,26	2,79	2,42	2,10	1,85	1,64	1,44	1,28	1,14	1,02	0,92	0,83	0,74	0,66	0,60	0,54	0,50	0,44
	suction	SLS	9,46	6,87	5,21	4,08	3,26	2,65	2,18	1,82	1,54	1,31	1,13	0,98	0,80	0,65	0,54	0,45	0,00	0,00	0,00	0,00
		ULS	5,84	4,88	4,19	3,68	3,29	2,97	2,70	2,33	1,98	1,73	1,50	1,34	1,19	1,07	0,98	0,89	0,81	0,75	0,69	0,65
Group III colours dark	pressure	SLS	9,25	6,65	5,00	3,86	3,04	2,43	1,96	1,54	1,21	0,96	0,76	0,54	0,37	0,23	0,12	0,03	0,00	0,00	0,00	0,00
		ULS	4,77	3,87	3,26	2,79	2,42	2,10	1,85	1,64	1,44	1,28	1,14	1,02	0,92	0,83	0,74	0,66	0,60	0,54	0,50	0,44
	suction	SLS	9,46	6,87	5,21	4,08	3,26	2,65	2,18	1,73	1,30	0,98	0,73	0,54	0,40	0,29	0,20	0,14	0,00	0,00	0,00	0,00
		ULS	5,84	4,88	4,19	3,68	3,29	2,91	2,60	2,33	1,98	1,73	1,50	1,34	1,19	1,07	0,98	0,89	0,81	0,75	0,69	0,65

Table 4 Maximum load of **SINGLE SPAN BEAM** roof panel PWD-PIR 100, thickness of facings 0.5 / 0.4 mm
Two or three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	11,13	8,18	6,27	4,93	3,95	3,20	2,62	2,17	1,79	1,45	1,18	0,96	0,79	0,62	0,45	0,32	0,20	0,11	0,04	0,00
		ULS	5,63	4,68	4,01	3,48	3,06	2,70	2,39	2,13	1,89	1,70	1,52	1,37	1,23	1,11	1,01	0,92	0,83	0,75	0,69	0,63
	suction	SLS	11,36	8,42	6,50	5,16	4,18	3,43	2,86	2,40	2,04	1,75	1,51	1,31	1,15	1,02	0,90	0,81	0,73	0,66	0,60	0,00
		ULS	5,84	4,88	4,20	3,69	3,29	2,97	2,72	2,49	2,15	1,86	1,62	1,44	1,29	1,16	1,05	0,96	0,87	0,81	0,75	0,69
Group II colours bright	pressure	SLS	11,13	8,18	6,27	4,93	3,95	3,20	2,62	2,17	1,79	1,45	1,18	0,96	0,79	0,62	0,45	0,32	0,20	0,11	0,04	0,00
		ULS	5,63	4,68	4,01	3,48	3,06	2,70	2,39	2,13	1,89	1,70	1,52	1,37	1,23	1,11	1,01	0,92	0,83	0,75	0,69	0,63
	suction	SLS	11,36	8,42	6,50	5,16	4,18	3,43	2,86	2,40	2,04	1,75	1,51	1,31	1,15	1,02	0,90	0,77	0,66	0,56	0,48	0,00
		ULS	5,84	4,88	4,20	3,69	3,29	2,97	2,72	2,49	2,15	1,86	1,62	1,44	1,29	1,16	1,05	0,96	0,87	0,81	0,75	0,69
Group III colours dark	pressure	SLS	11,13	8,18	6,27	4,93	3,95	3,20	2,62	2,17	1,79	1,45	1,18	0,96	0,79	0,62	0,45	0,32	0,20	0,11	0,04	0,00
		ULS	5,63	4,68	4,01	3,48	3,06	2,70	2,39	2,13	1,89	1,70	1,52	1,37	1,23	1,11	1,01	0,92	0,83	0,75	0,69	0,63
	suction	SLS	11,36	8,42	6,50	5,16	4,18	3,43	2,86	2,40	2,04	1,71	1,35	1,06	0,84	0,66	0,52	0,41	0,32	0,25	0,19	0,00
		ULS	5,84	4,88	4,20	3,69	3,29	2,97	2,72	2,49	2,15	1,86	1,62	1,44	1,29	1,16	1,05	0,96	0,87	0,81	0,75	0,69

Table 5 Maximum load of **SINGLE SPAN BEAM** roof panel PWD-PIR 120, thickness of facings 0.5 / 0.4 mm
Two or three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	13,03	9,74	7,55	6,03	4,89	4,01	3,32	2,77	2,33	1,97	1,66	1,38	1,15	0,96	0,80	0,66	0,51	0,38	0,27	0,18
		ULS	7,16	6,06	5,27	4,64	4,11	3,66	3,26	2,93	2,63	2,36	2,13	1,92	1,74	1,58	1,44	1,31	1,19	1,10	1,01	0,92
	suction	SLS	13,28	9,99	7,82	6,28	5,13	4,26	3,57	3,02	2,58	2,22	1,93	1,68	1,48	1,31	1,16	1,04	0,93	0,84	0,77	0,70
		ULS	5,85	4,89	4,22	3,69	3,30	2,99	2,72	2,51	2,33	2,16	1,91	1,68	1,50	1,35	1,23	1,11	1,02	0,95	0,87	0,81
Group II colours bright	pressure	SLS	13,03	9,74	7,55	6,03	4,89	4,01	3,32	2,77	2,33	1,97	1,66	1,38	1,15	0,96	0,80	0,66	0,51	0,38	0,27	0,18
		ULS	7,16	6,06	5,27	4,64	4,11	3,66	3,26	2,93	2,63	2,36	2,13	1,92	1,74	1,58	1,44	1,31	1,19	1,10	1,01	0,92
	suction	SLS	13,28	9,99	7,82	6,28	5,13	4,26	3,57	3,02	2,58	2,22	1,93	1,68	1,48	1,31	1,16	1,04	0,93	0,84	0,76	0,66
		ULS	5,85	4,89	4,22	3,69	3,30	2,99	2,72	2,51	2,33	2,16	1,91	1,68	1,50	1,35	1,23	1,11	1,02	0,95	0,87	0,81
Group III colours dark	pressure	SLS	13,03	9,74	7,55	6,03	4,89	4,01	3,32	2,77	2,33	1,97	1,66	1,38	1,15	0,96	0,80	0,66	0,51	0,38	0,27	0,18
		ULS	7,16	6,06	5,27	4,64	4,11	3,66	3,26	2,93	2,63	2,36	2,13	1,92	1,74	1,58	1,44	1,31	1,19	1,10	1,01	0,92
	suction	SLS	13,28	9,99	7,82	6,28	5,13	4,26	3,57	3,02	2,58	2,22	1,93	1,68	1,38	1,13	0,92	0,76	0,62	0,51	0,42	0,35
		ULS	5,85	4,89	4,22	3,69	3,30	2,99	2,72	2,51	2,33	2,16	1,91	1,68	1,50	1,35	1,23	1,11	1,02	0,95	0,87	0,81

Tablica 6 Maximum load of **SINGLE SPAN BEAM** roof panel PWD-PIR 160/200, thickness of facings 0.5 / 0.4 mm
Two or three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 160/200

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	16,24	12,14	9,60	7,86	6,60	5,63	4,80	4,80	4,07	3,47	2,98	2,57	2,22	1,93	1,68	1,45	1,24	1,07	0,91	0,78
		ULS	7,35	6,38	5,55	4,83	4,28	3,83	3,47	3,47	3,17	2,90	2,67	2,42	2,19	2,00	1,82	1,65	1,52	1,38	1,26	1,17
	suction	SLS	16,58	12,48	9,94	8,21	6,94	5,98	5,08	5,08	4,35	3,75	3,26	2,84	2,50	2,21	1,96	1,75	1,57	1,41	1,28	1,16
		ULS	5,87	4,91	4,23	3,71	3,32	3,00	2,73	2,73	2,52	2,34	2,18	2,04	1,92	1,82	1,73	1,58	1,43	1,31	1,20	1,11
Group II colours bright	pressure	SLS	16,24	12,14	9,60	7,86	6,60	5,63	4,80	4,80	4,07	3,47	2,98	2,57	2,22	1,93	1,68	1,45	1,24	1,07	0,91	0,78
		ULS	7,35	6,38	5,55	4,83	4,28	3,83	3,47	3,47	3,17	2,90	2,67	2,42	2,19	2,00	1,82	1,65	1,52	1,38	1,26	1,17
	suction	SLS	16,58	12,48	9,94	8,21	6,94	5,98	5,08	5,08	4,35	3,75	3,26	2,84	2,50	2,21	1,96	1,75	1,57	1,41	1,28	1,16
		ULS	5,87	4,91	4,23	3,71	3,32	3,00	2,73	2,73	2,52	2,34	2,18	2,04	1,92	1,82	1,73	1,58	1,43	1,31	1,20	1,11
Group III colours dark	pressure	SLS	16,24	12,14	9,60	7,86	6,60	5,63	4,80	4,80	4,07	3,47	2,98	2,57	2,22	1,93	1,68	1,45	1,24	1,07	0,91	0,78
		ULS	7,35	6,38	5,55	4,83	4,28	3,83	3,47	3,47	3,17	2,90	2,67	2,42	2,19	2,00	1,82	1,65	1,52	1,38	1,26	1,17
	suction	SLS	16,58	12,48	9,94	8,21	6,94	5,98	5,08	5,08	4,35	3,75	3,26	2,84	2,50	2,21	1,96	1,75	1,57	1,40	1,20	1,03
		ULS	5,87	4,91	4,23	3,71	3,32	3,00	2,73	2,73	2,52	2,34	2,18	2,04	1,92	1,82	1,73	1,58	1,43	1,31	1,20	1,11

Table 7 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 40, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 40

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,05	2,16	1,61	1,26	1,01	0,83	0,70	0,59	0,45	0,32	0,23	0,16	0,11	0,07	0,04	0,01	0,00	0,00	0,00	0,00
		ULS	3,56	2,97	2,55	2,24	2,00	1,71	1,49	1,29	1,13	0,99	0,89	0,78	0,71	0,63	0,57	0,51	0,45	0,41	0,38	0,33
	suction	SLS	2,64	1,92	1,48	1,20	1,00	0,85	0,74	0,65	0,59	0,53	0,48	0,44	0,41	0,38	0,36	0,34	0,00	0,00	0,00	0,00
		ULS	1,98	1,70	1,49	1,32	1,20	1,10	1,01	0,95	0,89	0,83	0,78	0,74	0,71	0,68	0,65	0,62	0,56	0,51	0,48	0,45
Group II colours bright	pressure	SLS	3,05	2,16	1,61	1,26	1,01	0,83	0,70	0,59	0,45	0,32	0,23	0,16	0,11	0,07	0,04	0,01	0,00	0,00	0,00	0,00
		ULS	3,56	2,97	2,55	2,24	2,00	1,71	1,47	1,29	1,13	0,99	0,89	0,78	0,69	0,63	0,56	0,51	0,45	0,41	0,38	0,33
	suction	SLS	2,48	1,79	1,38	1,11	0,93	0,79	0,69	0,61	0,55	0,50	0,45	0,42	0,39	0,36	0,34	0,32	0,00	0,00	0,00	0,00
		ULS	1,85	1,58	1,40	1,25	1,14	1,05	0,98	0,90	0,86	0,80	0,77	0,72	0,69	0,66	0,63	0,60	0,56	0,51	0,48	0,45
Group III colours dark	pressure	SLS	3,05	2,16	1,61	1,26	1,01	0,83	0,70	0,59	0,45	0,32	0,23	0,16	0,11	0,07	0,04	0,01	0,00	0,00	0,00	0,00
		ULS	3,56	2,97	2,55	2,24	2,00	1,71	1,47	1,28	1,13	0,99	0,87	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,36	0,33
	suction	SLS	2,25	1,61	1,23	0,99	0,82	0,70	0,61	0,54	0,49	0,44	0,41	0,37	0,35	0,33	0,31	0,29	0,00	0,00	0,00	0,00
		ULS	1,62	1,40	1,25	1,14	1,05	0,96	0,90	0,86	0,80	0,77	0,72	0,69	0,66	0,63	0,60	0,59	0,56	0,51	0,48	0,45

Table 8 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 60, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,27	2,35	1,79	1,41	1,15	0,96	0,81	0,70	0,60	0,45	0,33	0,23	0,16	0,11	0,07	0,03	0,01	0,00	0,00	0,00
		ULS	3,98	3,32	2,84	2,49	2,21	1,98	1,80	1,65	1,52	1,40	1,26	1,14	1,04	0,93	0,86	0,78	0,71	0,65	0,59	0,54
	suction	SLS	2,83	2,09	1,64	1,34	1,13	0,97	0,85	0,76	0,68	0,62	0,57	0,53	0,49	0,46	0,43	0,40	0,38	0,00	0,00	0,00
		ULS	1,92	1,64	1,43	1,28	1,16	1,07	0,98	0,92	0,86	0,81	0,77	0,74	0,69	0,66	0,63	0,62	0,59	0,57	0,56	0,53
Group II colours bright	pressure	SLS	3,27	2,35	1,79	1,41	1,15	0,96	0,81	0,70	0,60	0,45	0,33	0,23	0,16	0,11	0,07	0,03	0,01	0,00	0,00	0,00
		ULS	3,98	3,32	2,84	2,49	2,21	1,98	1,80	1,65	1,52	1,40	1,25	1,13	1,02	0,93	0,84	0,77	0,69	0,63	0,59	0,54
	suction	SLS	2,67	1,96	1,53	1,24	1,05	0,90	0,79	0,70	0,63	0,58	0,53	0,49	0,46	0,43	0,40	0,38	0,36	0,00	0,00	0,00
		ULS	1,74	1,49	1,31	1,19	1,08	0,99	0,93	0,87	0,81	0,77	0,74	0,71	0,68	0,65	0,62	0,59	0,57	0,56	0,54	0,53
Group III colours dark	pressure	SLS	3,27	2,35	1,79	1,41	1,15	0,96	0,81	0,70	0,60	0,45	0,33	0,23	0,16	0,11	0,07	0,03	0,01	0,00	0,00	0,00
		ULS	3,98	3,32	2,84	2,49	2,21	1,98	1,80	1,65	1,52	1,38	1,23	1,11	1,01	0,92	0,83	0,75	0,69	0,63	0,57	0,53
	suction	SLS	2,42	1,75	1,36	1,10	0,92	0,80	0,70	0,62	0,56	0,51	0,47	0,44	0,41	0,38	0,36	0,34	0,33	0,00	0,00	0,00
		ULS	1,37	1,23	1,13	1,04	0,96	0,89	0,84	0,80	0,75	0,72	0,69	0,66	0,63	0,60	0,59	0,57	0,54	0,53	0,51	0,50

Table 9 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 80, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 80

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,50	2,54	1,95	1,56	1,28	1,08	0,92	0,79	0,69	0,61	0,48	0,36	0,26	0,19	0,13	0,08	0,05	0,02	0,00	0,00
		ULS	4,44	3,69	3,15	2,75	2,43	2,19	1,98	1,82	1,67	1,55	1,44	1,34	1,26	1,19	1,11	1,05	0,98	0,90	0,83	0,77
	suction	SLS	3,50	2,62	2,07	1,70	1,44	1,25	1,10	0,98	0,88	0,81	0,74	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,00	0,00
		ULS	1,88	1,59	1,40	1,25	1,13	1,04	0,96	0,90	0,84	0,80	0,75	0,72	0,69	0,66	0,63	0,60	0,59	0,57	0,54	0,53
Group II colours bright	pressure	SLS	3,50	2,54	1,95	1,56	1,28	1,08	0,92	0,79	0,69	0,61	0,48	0,36	0,26	0,19	0,13	0,08	0,05	0,02	0,00	0,00
		ULS	4,44	3,69	3,15	2,75	2,43	2,19	1,98	1,82	1,67	1,55	1,44	1,34	1,26	1,19	1,11	1,05	0,96	0,89	0,83	0,75
	suction	SLS	3,33	2,48	1,95	1,60	1,35	1,17	1,03	0,92	0,83	0,76	0,69	0,64	0,60	0,56	0,53	0,50	0,47	0,45	0,00	0,00
		ULS	1,68	1,43	1,25	1,13	1,02	0,95	0,89	0,83	0,78	0,75	0,71	0,68	0,65	0,63	0,60	0,59	0,56	0,54	0,53	0,51
Group III colours dark	pressure	SLS	3,50	2,54	1,95	1,56	1,28	1,08	0,92	0,79	0,69	0,61	0,48	0,36	0,26	0,19	0,13	0,08	0,05	0,02	0,00	0,00
		ULS	4,44	3,69	3,15	2,75	2,43	2,19	1,98	1,82	1,67	1,55	1,44	1,34	1,26	1,19	1,11	1,04	0,95	0,87	0,80	0,74
	suction	SLS	3,08	2,26	1,77	1,45	1,22	1,05	0,93	0,83	0,75	0,68	0,63	0,58	0,54	0,51	0,48	0,45	0,43	0,41	0,00	0,00
		ULS	1,04	0,92	0,87	0,86	0,86	0,83	0,78	0,74	0,71	0,68	0,65	0,62	0,60	0,59	0,56	0,54	0,53	0,51	0,50	0,48

Table 10 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 100, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,71	2,72	2,11	1,70	1,40	1,19	1,02	0,88	0,77	0,65	0,46	0,32	0,22	0,15	0,09	0,04	0,00	0,00	0,00	0,00
		ULS	4,68	3,89	3,30	2,87	2,54	2,28	2,07	1,89	1,74	1,61	1,50	1,40	1,31	1,23	1,16	1,10	1,04	0,99	0,95	0,90
	suction	SLS	3,72	2,81	2,24	1,85	1,58	1,37	1,21	1,08	0,98	0,89	0,82	0,76	0,71	0,66	0,62	0,59	0,56	0,00	0,00	0,00
		ULS	1,85	1,56	1,35	1,22	1,10	1,01	0,93	0,87	0,83	0,78	0,74	0,71	0,68	0,65	0,62	0,60	0,59	0,56	0,54	0,53
Group II colours bright	pressure	SLS	3,71	2,72	2,11	1,70	1,40	1,19	1,02	0,88	0,77	0,65	0,46	0,32	0,22	0,15	0,09	0,04	0,00	0,00	0,00	0,00
		ULS	4,68	3,89	3,30	2,87	2,54	2,28	2,07	1,89	1,74	1,61	1,50	1,40	1,31	1,23	1,16	1,10	1,04	0,99	0,95	0,90
	suction	SLS	3,55	2,66	2,11	1,74	1,48	1,29	1,14	1,02	0,92	0,84	0,77	0,72	0,67	0,63	0,59	0,56	0,53	0,00	0,00	0,00
		ULS	1,62	1,37	1,20	1,08	0,98	0,90	0,86	0,80	0,75	0,72	0,69	0,66	0,63	0,62	0,59	0,57	0,56	0,54	0,53	0,51
Group III colours dark	pressure	SLS	3,71	2,72	2,11	1,70	1,40	1,19	1,02	0,88	0,77	0,65	0,46	0,32	0,22	0,15	0,09	0,04	0,00	0,00	0,00	0,00
		ULS	4,68	3,89	3,30	2,87	2,54	2,28	2,07	1,89	1,74	1,61	1,50	1,40	1,31	1,23	1,16	1,10	1,04	0,99	0,95	0,90
	suction	SLS	3,29	2,44	1,92	1,58	1,34	1,16	1,02	0,92	0,83	0,76	0,70	0,65	0,61	0,57	0,54	0,51	0,48	0,00	0,00	0,00
		ULS	0,78	0,66	0,63	0,63	0,65	0,68	0,69	0,69	0,66	0,63	0,62	0,59	0,57	0,56	0,54	0,53	0,51	0,50	0,48	0,48

Table 11 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 120, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,92	2,90	2,26	1,83	1,52	1,29	1,11	0,96	0,85	0,75	0,62	0,45	0,32	0,22	0,14	0,08	0,04	0,00	0,00	0,00
		ULS	4,65	3,84	3,26	2,84	2,49	2,24	2,03	1,85	1,70	1,58	1,46	1,37	1,28	1,20	1,14	1,07	1,02	0,96	0,92	0,87
	suction	SLS	3,93	2,99	2,40	2,00	1,71	1,49	1,32	1,18	1,07	0,98	0,90	0,83	0,78	0,73	0,69	0,65	0,61	0,58	0,00	0,00
		ULS	1,83	1,53	1,34	1,19	1,07	0,99	0,92	0,86	0,81	0,77	0,72	0,69	0,66	0,65	0,62	0,60	0,57	0,56	0,54	0,53
Group II colours bright	pressure	SLS	3,92	2,90	2,26	1,83	1,52	1,29	1,11	0,96	0,85	0,75	0,62	0,45	0,32	0,22	0,14	0,08	0,04	0,00	0,00	0,00
		ULS	4,65	3,84	3,26	2,84	2,49	2,24	2,03	1,85	1,70	1,58	1,46	1,37	1,28	1,20	1,14	1,07	1,02	0,96	0,92	0,87
	suction	SLS	3,75	2,84	2,27	1,88	1,60	1,39	1,23	1,11	1,00	0,92	0,85	0,78	0,73	0,69	0,65	0,61	0,58	0,55	0,00	0,00
		ULS	1,59	1,31	1,14	1,04	0,95	0,87	0,81	0,77	0,74	0,71	0,68	0,65	0,62	0,60	0,57	0,56	0,54	0,53	0,51	0,50
Group III colours dark	pressure	SLS	3,92	2,90	2,26	1,83	1,52	1,29	1,11	0,96	0,85	0,75	0,62	0,45	0,32	0,22	0,14	0,08	0,04	0,00	0,00	0,00
		ULS	4,65	3,84	3,26	2,84	2,49	2,24	2,03	1,85	1,70	1,58	1,46	1,37	1,28	1,20	1,14	1,07	1,02	0,96	0,92	0,87
	suction	SLS	3,49	2,61	2,06	1,70	1,45	1,26	1,11	1,00	0,90	0,83	0,76	0,71	0,66	0,62	0,59	0,56	0,53	0,51	0,00	0,00
		ULS	0,59	0,44	0,41	0,44	0,47	0,50	0,53	0,56	0,59	0,60	0,59	0,57	0,56	0,54	0,53	0,51	0,50	0,48	0,47	0,47

Tablica 12 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 160/200, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 160/200

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,32	3,24	2,55	2,08	1,74	1,48	1,28	1,28	1,12	0,98	0,88	0,78	0,71	0,55	0,40	0,28	0,20	0,13	0,07	0,03
		ULS	4,62	3,78	3,20	2,76	2,42	2,16	1,95	1,95	1,77	1,62	1,50	1,40	1,31	1,22	1,14	1,08	1,02	0,96	0,92	0,87
	suction	SLS	4,33	3,33	2,70	2,26	1,94	1,70	1,51	1,51	1,36	1,24	1,13	1,04	0,97	0,91	0,85	0,80	0,76	0,72	0,68	0,65
		ULS	1,80	1,50	1,29	1,14	1,04	0,95	0,89	0,89	0,83	0,78	0,74	0,71	0,68	0,65	0,63	0,60	0,59	0,57	0,56	0,54
Group II colours bright	pressure	SLS	4,32	3,24	2,55	2,08	1,74	1,48	1,28	1,28	1,12	0,98	0,88	0,78	0,71	0,55	0,40	0,28	0,20	0,13	0,07	0,03
		ULS	4,62	3,78	3,20	2,76	2,42	2,16	1,95	1,95	1,77	1,62	1,50	1,40	1,31	1,22	1,14	1,08	1,02	0,96	0,92	0,87
	suction	SLS	4,15	3,18	2,56	2,13	1,83	1,60	1,42	1,42	1,28	1,16	1,06	0,98	0,91	0,85	0,80	0,75	0,71	0,68	0,65	0,62
		ULS	1,41	1,08	0,92	0,83	0,78	0,75	0,75	0,75	0,72	0,69	0,66	0,63	0,62	0,59	0,57	0,56	0,54	0,53	0,51	0,50
Group III colours dark	pressure	SLS	4,32	3,24	2,55	2,08	1,74	1,48	1,28	1,28	1,12	0,98	0,88	0,78	0,71	0,55	0,40	0,28	0,20	0,13	0,07	0,03
		ULS	4,62	3,78	3,20	2,76	2,42	2,16	1,95	1,95	1,77	1,62	1,50	1,40	1,31	1,22	1,14	1,08	1,02	0,96	0,92	0,87
	suction	SLS	3,88	2,94	2,34	1,94	1,66	1,44	1,28	1,28	1,15	1,05	0,96	0,89	0,83	0,77	0,73	0,69	0,65	0,62	0,59	0,57
		ULS	0,29	0,11	0,08	0,09	0,14	0,20	0,26	0,26	0,30	0,35	0,39	0,42	0,45	0,47	0,48	0,48	0,47	0,47	0,45	0,45

Table 13

Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 40, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 40

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,84	2,73	2,05	1,61	1,30	1,08	0,91	0,77	0,67	0,58	0,51	0,44	0,35	0,28	0,23	0,16	0,09	0,04	0,00	0,00
		ULS	4,32	3,57	2,84	2,33	1,95	1,65	1,43	1,23	1,08	0,95	0,84	0,74	0,66	0,59	0,53	0,47	0,42	0,38	0,35	0,30
	suction	SLS	3,27	2,37	1,83	1,47	1,22	1,04	0,91	0,80	0,71	0,64	0,59	0,54	0,50	0,46	0,43	0,40	0,38	0,35	0,32	0,00
		ULS	2,45	2,09	1,82	1,61	1,44	1,32	1,22	1,13	1,05	0,98	0,92	0,87	0,78	0,71	0,63	0,59	0,54	0,50	0,45	0,42
Group II colours bright	pressure	SLS	3,84	2,73	2,05	1,61	1,30	1,08	0,91	0,77	0,67	0,58	0,51	0,44	0,35	0,28	0,23	0,16	0,09	0,04	0,00	0,00
		ULS	4,32	3,60	2,85	2,34	1,97	1,67	1,43	1,25	1,08	0,96	0,84	0,75	0,66	0,60	0,53	0,48	0,42	0,38	0,35	0,32
	suction	SLS	3,13	2,26	1,74	1,40	1,17	1,00	0,86	0,76	0,68	0,62	0,56	0,52	0,48	0,44	0,41	0,39	0,37	0,35	0,32	0,00
		ULS	2,37	2,01	1,76	1,58	1,41	1,29	1,19	1,10	1,04	0,96	0,92	0,86	0,78	0,71	0,63	0,59	0,54	0,50	0,45	0,42
Group III colours dark	pressure	SLS	3,84	2,73	2,05	1,61	1,30	1,08	0,91	0,77	0,67	0,58	0,51	0,44	0,35	0,28	0,23	0,16	0,09	0,04	0,00	0,00
		ULS	4,32	3,60	2,90	2,37	1,98	1,68	1,46	1,26	1,10	0,96	0,86	0,75	0,68	0,60	0,54	0,48	0,44	0,39	0,35	0,32
	suction	SLS	2,92	2,10	1,62	1,30	1,08	0,92	0,80	0,71	0,64	0,58	0,53	0,48	0,45	0,42	0,39	0,36	0,30	0,26	0,23	0,00
		ULS	2,24	1,92	1,70	1,52	1,37	1,26	1,16	1,08	1,01	0,95	0,89	0,84	0,78	0,71	0,63	0,59	0,54	0,50	0,45	0,42

Table 14

Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 60, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,04	2,91	2,22	1,76	1,44	1,21	1,03	0,89	0,77	0,68	0,60	0,54	0,46	0,38	0,31	0,25	0,21	0,17	0,13	0,10
		ULS	4,79	3,99	3,42	2,94	2,52	2,19	1,92	1,71	1,52	1,35	1,22	1,10	0,99	0,89	0,81	0,74	0,66	0,60	0,56	0,50
	suction	SLS	3,44	2,53	1,98	1,61	1,35	1,16	1,02	0,91	0,82	0,74	0,68	0,63	0,58	0,54	0,51	0,48	0,45	0,43	0,41	0,39
		ULS	2,39	2,03	1,77	1,58	1,43	1,31	1,20	1,11	1,04	0,98	0,92	0,87	0,83	0,78	0,75	0,72	0,69	0,63	0,59	0,54
Group II colours bright	pressure	SLS	4,04	2,91	2,22	1,76	1,44	1,21	1,03	0,89	0,77	0,68	0,60	0,54	0,46	0,38	0,31	0,25	0,21	0,17	0,13	0,10
		ULS	4,79	3,99	3,42	2,96	2,54	2,21	1,94	1,71	1,52	1,35	1,22	1,10	0,99	0,89	0,81	0,74	0,66	0,60	0,56	0,50
	suction	SLS	3,29	2,41	1,88	1,53	1,29	1,11	0,97	0,87	0,78	0,71	0,65	0,60	0,56	0,52	0,49	0,46	0,43	0,41	0,39	0,37
		ULS	2,28	1,95	1,71	1,53	1,38	1,26	1,17	1,08	1,02	0,95	0,90	0,86	0,81	0,77	0,74	0,71	0,68	0,63	0,59	0,54
Group III colours dark	pressure	SLS	4,04	2,91	2,22	1,76	1,44	1,21	1,03	0,89	0,77	0,68	0,60	0,54	0,46	0,38	0,31	0,25	0,21	0,17	0,13	0,10
		ULS	4,79	3,99	3,42	2,97	2,55	2,21	1,94	1,71	1,52	1,37	1,22	1,10	0,99	0,89	0,81	0,74	0,66	0,60	0,56	0,50
	suction	SLS	3,07	2,24	1,75	1,42	1,20	1,03	0,90	0,81	0,73	0,66	0,61	0,56	0,52	0,49	0,46	0,43	0,41	0,39	0,37	0,35
		ULS	2,12	1,83	1,61	1,46	1,32	1,22	1,13	1,05	0,98	0,93	0,87	0,83	0,80	0,75	0,72	0,69	0,68	0,63	0,59	0,54

Table 15

Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 80, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 80

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,23	3,08	2,37	1,90	1,57	1,33	1,14	0,99	0,87	0,77	0,68	0,61	0,55	0,50	0,42	0,35	0,29	0,24	0,20	0,16
		ULS	5,28	4,40	3,77	3,30	2,93	2,64	2,39	2,19	2,00	1,80	1,62	1,47	1,34	1,22	1,11	1,02	0,93	0,86	0,78	0,72
	suction	SLS	4,16	3,09	2,44	2,00	1,69	1,46	1,29	1,15	1,04	0,94	0,87	0,80	0,74	0,69	0,65	0,61	0,58	0,55	0,52	0,50
		ULS	2,34	2,00	1,74	1,55	1,40	1,28	1,19	1,10	1,02	0,96	0,92	0,87	0,83	0,78	0,75	0,72	0,69	0,66	0,65	0,62
Group II colours bright	pressure	SLS	4,23	3,08	2,37	1,90	1,57	1,33	1,14	0,99	0,87	0,77	0,68	0,61	0,55	0,50	0,42	0,35	0,29	0,24	0,20	0,16
		ULS	5,28	4,40	3,77	3,30	2,93	2,64	2,39	2,19	1,98	1,79	1,62	1,47	1,34	1,22	1,11	1,02	0,93	0,86	0,78	0,72
	suction	SLS	4,01	2,97	2,34	1,92	1,62	1,40	1,24	1,10	1,00	0,91	0,83	0,77	0,72	0,67	0,63	0,59	0,56	0,53	0,51	0,48
		ULS	2,22	1,89	1,67	1,49	1,35	1,25	1,14	1,07	1,01	0,95	0,89	0,84	0,81	0,77	0,74	0,71	0,68	0,66	0,63	0,62
Group III colours dark	pressure	SLS	4,23	3,08	2,37	1,90	1,57	1,33	1,14	0,99	0,87	0,77	0,68	0,61	0,55	0,50	0,42	0,35	0,29	0,24	0,20	0,16
		ULS	5,28	4,40	3,77	3,30	2,93	2,64	2,39	2,19	1,98	1,79	1,62	1,47	1,34	1,22	1,11	1,01	0,93	0,84	0,78	0,72
	suction	SLS	3,77	2,79	2,19	1,79	1,52	1,31	1,16	1,03	0,93	0,85	0,78	0,73	0,68	0,63	0,59	0,56	0,53	0,50	0,48	0,46
		ULS	2,03	1,74	1,55	1,40	1,28	1,17	1,10	1,02	0,96	0,90	0,86	0,83	0,78	0,75	0,72	0,69	0,66	0,65	0,62	0,60

Table 16 Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 100, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,42	3,24	2,52	2,04	1,69	1,44	1,24	1,08	0,95	0,85	0,76	0,68	0,58	0,48	0,39	0,32	0,26	0,21	0,17	0,14
		ULS	5,52	4,61	3,95	3,45	3,06	2,75	2,49	2,28	2,10	1,95	1,82	1,70	1,59	1,49	1,41	1,31	1,20	1,11	1,02	0,95
	suction	SLS	4,35	3,27	2,59	2,14	1,82	1,59	1,40	1,25	1,14	1,04	0,95	0,88	0,82	0,77	0,72	0,68	0,65	0,61	0,58	0,56
		ULS	2,31	1,97	1,71	1,53	1,38	1,26	1,17	1,10	1,02	0,96	0,90	0,86	0,83	0,78	0,75	0,72	0,69	0,66	0,65	0,62
Group II colours bright	pressure	SLS	4,42	3,24	2,52	2,04	1,69	1,44	1,24	1,08	0,95	0,85	0,76	0,68	0,58	0,48	0,39	0,32	0,26	0,21	0,17	0,14
		ULS	5,52	4,61	3,95	3,45	3,06	2,75	2,49	2,28	2,10	1,95	1,82	1,70	1,59	1,49	1,41	1,31	1,20	1,10	1,02	0,95
	suction	SLS	4,19	3,14	2,49	2,05	1,75	1,52	1,34	1,20	1,09	1,00	0,92	0,85	0,79	0,74	0,70	0,66	0,62	0,59	0,57	0,54
		ULS	2,16	1,85	1,62	1,46	1,32	1,22	1,13	1,05	0,99	0,93	0,89	0,84	0,80	0,77	0,74	0,71	0,68	0,66	0,63	0,62
Group III colours dark	pressure	SLS	4,42	3,24	2,52	2,04	1,69	1,44	1,24	1,08	0,95	0,85	0,76	0,68	0,58	0,48	0,39	0,32	0,26	0,21	0,17	0,14
		ULS	5,52	4,61	3,95	3,45	3,06	2,75	2,49	2,28	2,10	1,95	1,82	1,70	1,59	1,49	1,40	1,29	1,19	1,10	1,01	0,93
	suction	SLS	3,95	2,94	2,33	1,92	1,63	1,42	1,26	1,13	1,02	0,94	0,86	0,80	0,75	0,70	0,66	0,62	0,59	0,56	0,54	0,51
		ULS	1,94	1,67	1,49	1,34	1,23	1,14	1,07	0,99	0,95	0,89	0,84	0,81	0,77	0,74	0,71	0,69	0,66	0,63	0,62	0,60

Table 17 Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 120, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,61	3,40	2,66	2,16	1,80	1,54	1,33	1,17	1,03	0,92	0,83	0,75	0,68	0,58	0,48	0,40	0,33	0,27	0,22	0,18
		ULS	5,46	4,55	3,89	3,41	3,02	2,72	2,46	2,25	2,07	1,92	1,79	1,67	1,56	1,47	1,38	1,31	1,25	1,19	1,13	1,07
	suction	SLS	4,54	3,43	2,74	2,28	1,95	1,70	1,51	1,35	1,23	1,12	1,04	0,96	0,90	0,84	0,79	0,75	0,71	0,67	0,64	0,61
		ULS	2,27	1,94	1,70	1,50	1,37	1,25	1,16	1,08	1,01	0,96	0,90	0,86	0,81	0,78	0,75	0,72	0,69	0,68	0,65	0,63
Group II colours bright	pressure	SLS	4,61	3,40	2,66	2,16	1,80	1,54	1,33	1,17	1,03	0,92	0,83	0,75	0,68	0,58	0,48	0,40	0,33	0,27	0,22	0,18
		ULS	5,46	4,55	3,89	3,41	3,02	2,72	2,46	2,25	2,07	1,92	1,79	1,67	1,56	1,47	1,38	1,31	1,25	1,19	1,13	1,07
	suction	SLS	4,38	3,30	2,63	2,19	1,87	1,63	1,44	1,30	1,18	1,08	1,00	0,92	0,86	0,81	0,76	0,72	0,68	0,65	0,62	0,59
		ULS	2,10	1,80	1,58	1,43	1,29	1,20	1,11	1,04	0,98	0,92	0,87	0,83	0,80	0,77	0,74	0,71	0,68	0,66	0,63	0,62
Group III colours dark	pressure	SLS	4,61	3,40	2,66	2,16	1,80	1,54	1,33	1,17	1,03	0,92	0,83	0,75	0,68	0,58	0,48	0,40	0,33	0,27	0,22	0,18
		ULS	5,46	4,55	3,89	3,41	3,02	2,72	2,46	2,25	2,07	1,92	1,79	1,67	1,56	1,47	1,38	1,31	1,25	1,19	1,13	1,07
	ssanie	SLS	4,13	3,10	2,46	2,04	1,74	1,52	1,35	1,22	1,10	1,01	0,94	0,87	0,81	0,76	0,72	0,68	0,65	0,62	0,59	0,56
		ULS	1,86	1,61	1,43	1,29	1,19	1,11	1,04	0,98	0,92	0,87	0,83	0,80	0,77	0,74	0,71	0,68	0,66	0,63	0,62	0,60

Tablica 18 Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 160/200, thickness of facings 0.5 / 0.4 mm
Two joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Płyta dachowa PWD-PIR 160/200

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,96	3,71	2,93	2,40	2,01	1,73	1,50	1,50	1,32	1,17	1,05	0,95	0,86	0,78	0,72	0,66	0,56	0,46	0,39	0,32
		ULS	5,37	4,46	3,80	3,32	2,94	2,64	2,40	2,40	2,19	2,01	1,86	1,74	1,62	1,52	1,43	1,35	1,28	1,20	1,14	1,10
	suction	SLS	4,90	3,75	3,03	2,53	2,18	1,91	1,70	1,70	1,53	1,40	1,28	1,19	1,10	1,03	0,97	0,91	0,86	0,82	0,78	0,75
		ULS	2,22	1,88	1,65	1,47	1,34	1,23	1,14	1,14	1,07	1,01	0,95	0,90	0,86	0,81	0,78	0,75	0,72	0,69	0,68	0,65
Group II colours bright	pressure	SLS	4,96	3,71	2,93	2,40	2,01	1,73	1,50	1,50	1,32	1,17	1,05	0,95	0,86	0,78	0,72	0,66	0,56	0,46	0,39	0,32
		ULS	5,37	4,46	3,80	3,32	2,94	2,64	2,40	2,40	2,19	2,01	1,86	1,74	1,62	1,52	1,43	1,35	1,28	1,20	1,14	1,10
	suction	SLS	4,73	3,61	2,91	2,43	2,09	1,83	1,63	1,63	1,47	1,34	1,23	1,14	1,06	0,99	0,93	0,88	0,83	0,79	0,75	0,72
		ULS	2,03	1,73	1,52	1,37	1,25	1,16	1,08	1,08	1,01	0,95	0,90	0,86	0,83	0,78	0,75	0,72	0,71	0,68	0,66	0,63
Group III colours dark	pressure	SLS	4,96	3,71	2,93	2,40	2,01	1,73	1,50	1,50	1,32	1,17	1,05	0,95	0,86	0,78	0,72	0,66	0,56	0,46	0,39	0,32
		ULS	5,37	4,46	3,80	3,32	2,94	2,64	2,40	2,40	2,19	2,01	1,86	1,74	1,62	1,52	1,43	1,35	1,28	1,20	1,14	1,10
	ssanie	SLS	4,48	3,39	2,72	2,27	1,95	1,71	1,52	1,52	1,38	1,25	1,15	1,07	1,00	0,93	0,88	0,83	0,79	0,75	0,71	0,68
		ULS	1,74	1,50	1,32	1,20	1,11	1,04	0,98	0,98	0,93	0,89	0,84	0,81	0,77	0,74	0,72	0,69	0,66	0,65	0,63	0,62

Table 19 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 40, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 40

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,05	2,16	1,61	1,26	1,01	0,83	0,70	0,59	0,45	0,32	0,23	0,16	0,11	0,07	0,04	0,01	0,00	0,00	0,00	0,00
		ULS	3,56	2,97	2,55	2,24	2,00	1,71	1,49	1,29	1,13	0,99	0,89	0,78	0,71	0,63	0,57	0,51	0,45	0,41	0,38	0,33
	suction	SLS	2,64	1,92	1,48	1,20	1,00	0,85	0,74	0,65	0,59	0,53	0,48	0,44	0,41	0,38	0,36	0,34	0,00	0,00	0,00	0,00
		ULS	3,17	2,67	2,31	2,06	1,85	1,68	1,55	1,43	1,32	1,19	1,04	0,92	0,83	0,74	0,66	0,62	0,56	0,51	0,48	0,45
Group II colours bright	pressure	SLS	3,05	2,16	1,61	1,26	1,01	0,83	0,70	0,59	0,45	0,32	0,23	0,16	0,11	0,07	0,04	0,01	0,00	0,00	0,00	0,00
		ULS	3,56	2,97	2,55	2,24	2,00	1,71	1,47	1,29	1,13	0,99	0,89	0,78	0,69	0,63	0,56	0,51	0,45	0,41	0,38	0,33
	suction	SLS	2,48	1,79	1,38	1,11	0,93	0,79	0,69	0,61	0,55	0,50	0,45	0,42	0,39	0,36	0,34	0,32	0,00	0,00	0,00	0,00
		ULS	3,02	2,55	2,22	1,98	1,79	1,62	1,50	1,38	1,29	1,19	1,04	0,92	0,83	0,74	0,66	0,62	0,56	0,51	0,48	0,45
Group III colours dark	pressure	SLS	3,05	2,16	1,61	1,26	1,01	0,83	0,70	0,59	0,45	0,32	0,23	0,16	0,11	0,07	0,04	0,01	0,00	0,00	0,00	0,00
		ULS	3,56	2,97	2,55	2,24	2,00	1,71	1,47	1,28	1,13	0,99	0,87	0,78	0,69	0,62	0,56	0,50	0,45	0,41	0,36	0,33
	suction	SLS	2,25	1,61	1,23	0,99	0,82	0,70	0,61	0,54	0,49	0,44	0,41	0,37	0,35	0,33	0,31	0,29	0,00	0,00	0,00	0,00
		ULS	2,79	2,39	2,09	1,86	1,70	1,55	1,43	1,34	1,25	1,17	1,04	0,92	0,83	0,74	0,66	0,62	0,56	0,51	0,48	0,45

Table 20 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 60, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,27	2,35	1,79	1,41	1,15	0,96	0,81	0,70	0,60	0,45	0,33	0,23	0,16	0,11	0,07	0,03	0,01	0,00	0,00	0,00
		ULS	3,98	3,32	2,84	2,49	2,21	1,98	1,80	1,65	1,52	1,40	1,26	1,14	1,04	0,93	0,86	0,78	0,71	0,65	0,59	0,54
	suction	SLS	2,83	2,09	1,64	1,34	1,13	0,97	0,85	0,76	0,68	0,62	0,57	0,53	0,49	0,46	0,43	0,40	0,38	0,00	0,00	0,00
		ULS	3,11	2,63	2,28	2,01	1,82	1,65	1,52	1,40	1,31	1,23	1,16	1,10	1,04	0,95	0,86	0,78	0,72	0,66	0,62	0,57
Group II colours bright	pressure	SLS	3,27	2,35	1,79	1,41	1,15	0,96	0,81	0,70	0,60	0,45	0,33	0,23	0,16	0,11	0,07	0,03	0,01	0,00	0,00	0,00
		ULS	3,98	3,32	2,84	2,49	2,21	1,98	1,80	1,65	1,52	1,40	1,25	1,13	1,02	0,93	0,84	0,77	0,69	0,63	0,59	0,54
	suction	SLS	2,67	1,96	1,53	1,24	1,05	0,90	0,79	0,70	0,63	0,58	0,53	0,49	0,46	0,43	0,40	0,38	0,36	0,00	0,00	0,00
		ULS	2,93	2,48	2,16	1,92	1,73	1,58	1,46	1,35	1,26	1,19	1,13	1,07	1,01	0,95	0,86	0,78	0,72	0,66	0,62	0,57
Group III colours dark	pressure	SLS	3,27	2,35	1,79	1,41	1,15	0,96	0,81	0,70	0,60	0,45	0,33	0,23	0,16	0,11	0,07	0,03	0,01	0,00	0,00	0,00
		ULS	3,98	3,32	2,84	2,49	2,21	1,98	1,80	1,65	1,52	1,38	1,23	1,11	1,01	0,92	0,83	0,75	0,69	0,63	0,57	0,53
	suction	SLS	2,42	1,75	1,36	1,10	0,92	0,80	0,70	0,62	0,56	0,51	0,47	0,44	0,41	0,38	0,36	0,34	0,33	0,00	0,00	0,00
		ULS	2,66	2,27	1,98	1,77	1,61	1,47	1,37	1,28	1,20	1,13	1,07	1,02	0,98	0,93	0,86	0,78	0,72	0,66	0,62	0,57

Table 21 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 80, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 80

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,50	2,54	1,95	1,56	1,28	1,08	0,92	0,79	0,69	0,61	0,48	0,36	0,26	0,19	0,13	0,08	0,05	0,02	0,00	0,00
		ULS	4,44	3,69	3,15	2,75	2,43	2,19	1,98	1,82	1,67	1,55	1,44	1,34	1,26	1,19	1,11	1,05	0,98	0,90	0,83	0,77
	suction	SLS	3,50	2,62	2,07	1,70	1,44	1,25	1,10	0,98	0,88	0,81	0,74	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,00	0,00
		ULS	3,08	2,60	2,25	1,98	1,79	1,62	1,49	1,38	1,29	1,22	1,14	1,08	1,02	0,98	0,93	0,90	0,86	0,83	0,80	0,77
Group II colours bright	pressure	SLS	3,50	2,54	1,95	1,56	1,28	1,08	0,92	0,79	0,69	0,61	0,48	0,36	0,26	0,19	0,13	0,08	0,05	0,02	0,00	0,00
		ULS	4,44	3,69	3,15	2,75	2,43	2,19	1,98	1,82	1,67	1,55	1,44	1,34	1,26	1,19	1,11	1,05	0,96	0,89	0,83	0,75
	suction	SLS	3,33	2,48	1,95	1,60	1,35	1,17	1,03	0,92	0,83	0,76	0,69	0,64	0,60	0,56	0,53	0,50	0,47	0,45	0,00	0,00
		ULS	2,88	2,43	2,10	1,86	1,68	1,55	1,43	1,32	1,23	1,17	1,10	1,05	0,99	0,95	0,90	0,87	0,84	0,81	0,78	0,75
Group III colours dark	pressure	SLS	3,50	2,54	1,95	1,56	1,28	1,08	0,92	0,79	0,69	0,61	0,48	0,36	0,26	0,19	0,13	0,08	0,05	0,02	0,00	0,00
		ULS	4,44	3,69	3,15	2,75	2,43	2,19	1,98	1,82	1,67	1,55	1,44	1,34	1,26	1,19	1,11	1,04	0,95	0,87	0,80	0,74
	suction	SLS	3,08	2,26	1,77	1,45	1,22	1,05	0,93	0,83	0,75	0,68	0,63	0,58	0,54	0,51	0,48	0,45	0,43	0,41	0,00	0,00
		ULS	2,57	2,18	1,89	1,70	1,53	1,41	1,31	1,23	1,16	1,10	1,04	0,99	0,95	0,90	0,87	0,84	0,81	0,78	0,75	0,72

Table 22 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 100, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,71	2,72	2,11	1,70	1,40	1,19	1,02	0,88	0,77	0,65	0,46	0,32	0,22	0,15	0,09	0,04	0,00	0,00	0,00	0,00
		ULS	4,68	3,89	3,30	2,87	2,54	2,28	2,07	1,89	1,74	1,61	1,50	1,40	1,31	1,23	1,16	1,10	1,04	0,99	0,95	0,90
	suction	SLS	3,72	2,81	2,24	1,85	1,58	1,37	1,21	1,08	0,98	0,89	0,82	0,76	0,71	0,66	0,62	0,59	0,56	0,00	0,00	0,00
		ULS	3,06	2,57	2,22	1,97	1,76	1,61	1,47	1,37	1,28	1,20	1,13	1,07	1,02	0,98	0,93	0,89	0,86	0,83	0,80	0,77
Group II colours bright	pressure	SLS	3,71	2,72	2,11	1,70	1,40	1,19	1,02	0,88	0,77	0,65	0,46	0,32	0,22	0,15	0,09	0,04	0,00	0,00	0,00	0,00
		ULS	4,68	3,89	3,30	2,87	2,54	2,28	2,07	1,89	1,74	1,61	1,50	1,40	1,31	1,23	1,16	1,10	1,04	0,99	0,95	0,90
	suction	SLS	3,55	2,66	2,11	1,74	1,48	1,29	1,14	1,02	0,92	0,84	0,77	0,72	0,67	0,63	0,59	0,56	0,53	0,00	0,00	0,00
		ULS	2,84	2,39	2,06	1,83	1,65	1,50	1,40	1,29	1,22	1,14	1,08	1,02	0,98	0,93	0,90	0,86	0,83	0,80	0,77	0,75
Group III colours dark	pressure	SLS	3,71	2,72	2,11	1,70	1,40	1,19	1,02	0,88	0,77	0,65	0,46	0,32	0,22	0,15	0,09	0,04	0,00	0,00	0,00	0,00
		ULS	4,68	3,89	3,30	2,87	2,54	2,28	2,07	1,89	1,74	1,61	1,50	1,40	1,31	1,23	1,16	1,10	1,04	0,99	0,95	0,90
	suction	SLS	3,29	2,44	1,92	1,58	1,34	1,16	1,02	0,92	0,83	0,76	0,70	0,65	0,61	0,57	0,54	0,51	0,48	0,00	0,00	0,00
		ULS	2,51	2,10	1,82	1,62	1,47	1,35	1,26	1,19	1,11	1,05	1,01	0,96	0,92	0,89	0,84	0,81	0,78	0,77	0,74	0,72

Table 23 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 120, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,92	2,90	2,26	1,83	1,52	1,29	1,11	0,96	0,85	0,75	0,62	0,45	0,32	0,22	0,14	0,08	0,04	0,00	0,00	0,00
		ULS	4,65	3,84	3,26	2,84	2,49	2,24	2,03	1,85	1,70	1,58	1,46	1,37	1,28	1,20	1,14	1,07	1,02	0,96	0,92	0,87
	suction	SLS	3,93	2,99	2,40	2,00	1,71	1,49	1,32	1,18	1,07	0,98	0,90	0,83	0,78	0,73	0,69	0,65	0,61	0,58	0,00	0,00
		ULS	3,05	2,55	2,21	1,94	1,74	1,59	1,46	1,35	1,26	1,19	1,13	1,07	1,01	0,96	0,93	0,89	0,86	0,83	0,80	0,77
Group II colours bright	pressure	SLS	3,92	2,90	2,26	1,83	1,52	1,29	1,11	0,96	0,85	0,75	0,62	0,45	0,32	0,22	0,14	0,08	0,04	0,00	0,00	0,00
		ULS	4,65	3,84	3,26	2,84	2,49	2,24	2,03	1,85	1,70	1,58	1,46	1,37	1,28	1,20	1,14	1,07	1,02	0,96	0,92	0,87
	suction	SLS	3,75	2,84	2,27	1,88	1,60	1,39	1,23	1,11	1,00	0,92	0,85	0,78	0,73	0,69	0,65	0,61	0,58	0,55	0,00	0,00
		ULS	2,81	2,36	2,03	1,79	1,61	1,47	1,37	1,26	1,19	1,13	1,07	1,01	0,96	0,92	0,89	0,86	0,83	0,80	0,77	0,74
Group III colours dark	pressure	SLS	3,92	2,90	2,26	1,83	1,52	1,29	1,11	0,96	0,85	0,75	0,62	0,45	0,32	0,22	0,14	0,08	0,04	0,00	0,00	0,00
		ULS	4,65	3,84	3,26	2,84	2,49	2,24	2,03	1,85	1,70	1,58	1,46	1,37	1,28	1,20	1,14	1,07	1,02	0,96	0,92	0,87
	suction	SLS	3,49	2,61	2,06	1,70	1,45	1,26	1,11	1,00	0,90	0,83	0,76	0,71	0,66	0,62	0,59	0,56	0,53	0,51	0,00	0,00
		ULS	2,45	2,04	1,76	1,56	1,43	1,31	1,22	1,14	1,08	1,02	0,98	0,93	0,89	0,86	0,83	0,80	0,77	0,75	0,72	0,71

Tablica 24 Maximum load of **TWO SPAN BEAM** roof panel PWD-PIR 160/200, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Płyta dachowa PWD-PIR 160/200

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,32	3,24	2,55	2,08	1,74	1,48	1,28	1,28	1,12	0,98	0,88	0,78	0,71	0,55	0,40	0,28	0,20	0,13	0,07	0,03
		ULS	4,62	3,78	3,20	2,76	2,42	2,16	1,95	1,95	1,77	1,62	1,50	1,40	1,31	1,22	1,14	1,08	1,02	0,96	0,92	0,87
	suction	SLS	4,33	3,33	2,70	2,26	1,94	1,70	1,51	1,51	1,36	1,24	1,13	1,04	0,97	0,91	0,85	0,80	0,76	0,72	0,68	0,65
		ULS	3,05	2,54	2,18	1,91	1,71	1,55	1,43	1,43	1,32	1,23	1,17	1,10	1,05	0,99	0,95	0,92	0,87	0,84	0,81	0,80
Group II colours bright	pressure	SLS	4,32	3,24	2,55	2,08	1,74	1,48	1,28	1,28	1,12	0,98	0,88	0,78	0,71	0,55	0,40	0,28	0,20	0,13	0,07	0,03
		ULS	4,62	3,78	3,20	2,76	2,42	2,16	1,95	1,95	1,77	1,62	1,50	1,40	1,31	1,22	1,14	1,08	1,02	0,96	0,92	0,87
	suction	SLS	4,15	3,18	2,56	2,13	1,83	1,60	1,42	1,42	1,28	1,16	1,06	0,98	0,91	0,85	0,80	0,75	0,71	0,68	0,65	0,62
		ULS	2,78	2,30	1,97	1,74	1,56	1,43	1,31	1,31	1,22	1,14	1,08	1,02	0,98	0,93	0,90	0,87	0,84	0,81	0,78	0,75
Group III colours dark	pressure	SLS	4,32	3,24	2,55	2,08	1,74	1,48	1,28	1,28	1,12	0,98	0,88	0,78	0,71	0,55	0,40	0,28	0,20	0,13	0,07	0,03
		ULS	4,62	3,78	3,20	2,76	2,42	2,16	1,95	1,95	1,77	1,62	1,50	1,40	1,31	1,22	1,14	1,08	1,02	0,96	0,92	0,87
	suction	SLS	3,88	2,94	2,34	1,94	1,66	1,44	1,28	1,28	1,15	1,05	0,96	0,89	0,83	0,77	0,73	0,69	0,65	0,62	0,59	0,57
		ULS	2,37	1,85	1,55	1,38	1,28	1,22	1,14	1,14	1,07	1,01	0,96	0,92	0,89	0,84	0,81	0,80	0,77	0,75	0,72	0,71

Table 25 Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 40, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 40

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	3,84	2,73	2,05	1,61	1,30	1,08	0,91	0,77	0,67	0,58	0,51	0,44	0,35	0,28	0,23	0,16	0,09	0,04	0,00	0,00
		ULS	4,32	3,57	2,84	2,33	1,95	1,65	1,43	1,23	1,08	0,95	0,84	0,74	0,66	0,59	0,53	0,47	0,42	0,38	0,35	0,30
	suction	SLS	3,27	2,37	1,83	1,47	1,22	1,04	0,91	0,80	0,71	0,64	0,59	0,54	0,50	0,46	0,43	0,40	0,38	0,35	0,32	0,00
		ULS	3,77	3,17	2,75	2,42	2,18	1,97	1,80	1,55	1,31	1,13	0,99	0,87	0,78	0,71	0,63	0,59	0,54	0,50	0,45	0,42
Group II colours bright	pressure	SLS	3,84	2,73	2,05	1,61	1,30	1,08	0,91	0,77	0,67	0,58	0,51	0,44	0,35	0,28	0,23	0,16	0,09	0,04	0,00	0,00
		ULS	4,32	3,60	2,85	2,34	1,97	1,67	1,43	1,25	1,08	0,96	0,84	0,75	0,66	0,60	0,53	0,48	0,42	0,38	0,35	0,32
	suction	SLS	3,13	2,26	1,74	1,40	1,17	1,00	0,86	0,76	0,68	0,62	0,56	0,52	0,48	0,44	0,41	0,39	0,37	0,35	0,32	0,00
		ULS	3,68	3,11	2,70	2,39	2,15	1,95	1,79	1,55	1,31	1,13	0,99	0,87	0,78	0,71	0,63	0,59	0,54	0,50	0,45	0,42
Group III colours dark	pressure	SLS	3,84	2,73	2,05	1,61	1,30	1,08	0,91	0,77	0,67	0,58	0,51	0,44	0,35	0,28	0,23	0,16	0,09	0,04	0,00	0,00
		ULS	4,32	3,60	2,90	2,37	1,98	1,68	1,46	1,26	1,10	0,96	0,86	0,75	0,68	0,60	0,54	0,48	0,44	0,39	0,35	0,32
	suction	SLS	2,92	2,10	1,62	1,30	1,08	0,92	0,80	0,71	0,64	0,58	0,53	0,48	0,45	0,42	0,39	0,36	0,30	0,26	0,23	0,00
		ULS	3,56	3,02	2,63	2,33	2,10	1,91	1,76	1,55	1,31	1,13	0,99	0,87	0,78	0,71	0,63	0,59	0,54	0,50	0,45	0,42

Table 26 Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 60, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 60

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,04	2,91	2,22	1,76	1,44	1,21	1,03	0,89	0,77	0,68	0,60	0,54	0,46	0,38	0,31	0,25	0,21	0,17	0,13	0,10
		ULS	4,79	3,99	3,42	2,94	2,52	2,19	1,92	1,71	1,52	1,35	1,22	1,10	0,99	0,89	0,81	0,74	0,66	0,60	0,56	0,50
	suction	SLS	3,44	2,53	1,98	1,61	1,35	1,16	1,02	0,91	0,82	0,74	0,68	0,63	0,58	0,54	0,51	0,48	0,45	0,43	0,41	0,39
		ULS	3,71	3,12	2,72	2,40	2,15	1,95	1,79	1,65	1,53	1,44	1,28	1,13	1,01	0,90	0,83	0,75	0,69	0,63	0,59	0,54
Group II colours bright	pressure	SLS	4,04	2,91	2,22	1,76	1,44	1,21	1,03	0,89	0,77	0,68	0,60	0,54	0,46	0,38	0,31	0,25	0,21	0,17	0,13	0,10
		ULS	4,79	3,99	3,42	2,96	2,54	2,21	1,94	1,71	1,52	1,35	1,22	1,10	0,99	0,89	0,81	0,74	0,66	0,60	0,56	0,50
	suction	SLS	3,29	2,41	1,88	1,53	1,29	1,11	0,97	0,87	0,78	0,71	0,65	0,60	0,56	0,52	0,49	0,46	0,43	0,41	0,39	0,37
		ULS	3,60	3,05	2,64	2,34	2,12	1,92	1,76	1,64	1,52	1,43	1,28	1,13	1,01	0,90	0,83	0,75	0,69	0,63	0,59	0,54
Group III colours dark	pressure	SLS	4,04	2,91	2,22	1,76	1,44	1,21	1,03	0,89	0,77	0,68	0,60	0,54	0,46	0,38	0,31	0,25	0,21	0,17	0,13	0,10
		ULS	4,79	3,99	3,42	2,97	2,55	2,21	1,94	1,71	1,52	1,37	1,22	1,10	0,99	0,89	0,81	0,74	0,66	0,60	0,56	0,50
	suction	SLS	3,07	2,24	1,75	1,42	1,20	1,03	0,90	0,81	0,73	0,66	0,61	0,56	0,52	0,49	0,46	0,43	0,41	0,39	0,37	0,35
		ULS	3,44	2,93	2,55	2,27	2,04	1,86	1,71	1,59	1,49	1,40	1,28	1,13	1,01	0,90	0,83	0,75	0,69	0,63	0,59	0,54

Table 27 Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 80, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 80

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,23	3,08	2,37	1,90	1,57	1,33	1,14	0,99	0,87	0,77	0,68	0,61	0,55	0,50	0,42	0,35	0,29	0,24	0,20	0,16
		ULS	5,28	4,40	3,77	3,30	2,93	2,64	2,39	2,19	2,00	1,80	1,62	1,47	1,34	1,22	1,11	1,02	0,93	0,86	0,78	0,72
	suction	SLS	4,16	3,09	2,44	2,00	1,69	1,46	1,29	1,15	1,04	0,94	0,87	0,80	0,74	0,69	0,65	0,61	0,58	0,55	0,52	0,50
		ULS	3,66	3,09	2,69	2,37	2,13	1,94	1,77	1,65	1,53	1,43	1,35	1,28	1,20	1,14	1,10	1,05	0,98	0,89	0,83	0,77
Group II colours bright	pressure	SLS	4,23	3,08	2,37	1,90	1,57	1,33	1,14	0,99	0,87	0,77	0,68	0,61	0,55	0,50	0,42	0,35	0,29	0,24	0,20	0,16
		ULS	5,28	4,40	3,77	3,30	2,93	2,64	2,39	2,19	1,98	1,79	1,62	1,47	1,34	1,22	1,11	1,02	0,93	0,86	0,78	0,72
	suction	SLS	4,01	2,97	2,34	1,92	1,62	1,40	1,24	1,10	1,00	0,91	0,83	0,77	0,72	0,67	0,63	0,59	0,56	0,53	0,51	0,48
		ULS	3,53	2,99	2,60	2,31	2,09	1,89	1,74	1,61	1,50	1,41	1,32	1,26	1,19	1,13	1,08	1,04	0,98	0,89	0,83	0,77
Group III colours dark	pressure	SLS	4,23	3,08	2,37	1,90	1,57	1,33	1,14	0,99	0,87	0,77	0,68	0,61	0,55	0,50	0,42	0,35	0,29	0,24	0,20	0,16
		ULS	5,28	4,40	3,77	3,30	2,93	2,64	2,39	2,19	1,98	1,79	1,62	1,47	1,34	1,22	1,11	1,01	0,93	0,84	0,78	0,72
	suction	SLS	3,77	2,79	2,19	1,79	1,52	1,31	1,16	1,03	0,93	0,85	0,78	0,73	0,68	0,63	0,59	0,56	0,53	0,50	0,48	0,46
		ULS	3,33	2,84	2,48	2,22	2,00	1,83	1,68	1,56	1,47	1,38	1,29	1,23	1,17	1,11	1,07	1,02	0,98	0,89	0,83	0,77

Table 28 Maximum load of **THREE SPAN BEAM** panel PWD-PIR 100, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 100

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,42	3,24	2,52	2,04	1,69	1,44	1,24	1,08	0,95	0,85	0,76	0,68	0,58	0,48	0,39	0,32	0,26	0,21	0,17	0,14
		ULS	5,52	4,61	3,95	3,45	3,06	2,75	2,49	2,28	2,10	1,95	1,82	1,70	1,59	1,49	1,41	1,31	1,20	1,11	1,02	0,95
	suction	SLS	4,35	3,27	2,59	2,14	1,82	1,59	1,40	1,25	1,14	1,04	0,95	0,88	0,82	0,77	0,72	0,68	0,65	0,61	0,58	0,56
		ULS	3,63	3,06	2,66	2,36	2,12	1,92	1,77	1,64	1,53	1,43	1,34	1,28	1,20	1,14	1,10	1,05	1,01	0,93	0,87	0,80
Group II colours bright	pressure	SLS	4,42	3,24	2,52	2,04	1,69	1,44	1,24	1,08	0,95	0,85	0,76	0,68	0,58	0,48	0,39	0,32	0,26	0,21	0,17	0,14
		ULS	5,52	4,61	3,95	3,45	3,06	2,75	2,49	2,28	2,10	1,95	1,82	1,70	1,59	1,49	1,41	1,31	1,20	1,10	1,02	0,95
	suction	SLS	4,19	3,14	2,49	2,05	1,75	1,52	1,34	1,20	1,09	1,00	0,92	0,85	0,79	0,74	0,70	0,66	0,62	0,59	0,57	0,54
		ULS	3,48	2,94	2,57	2,28	2,06	1,88	1,73	1,59	1,49	1,40	1,32	1,25	1,19	1,13	1,08	1,04	0,99	0,93	0,87	0,80
Group III colours dark	pressure	SLS	4,42	3,24	2,52	2,04	1,69	1,44	1,24	1,08	0,95	0,85	0,76	0,68	0,58	0,48	0,39	0,32	0,26	0,21	0,17	0,14
		ULS	5,52	4,61	3,95	3,45	3,06	2,75	2,49	2,28	2,10	1,95	1,82	1,70	1,59	1,49	1,40	1,29	1,19	1,10	1,01	0,93
	suction	SLS	3,95	2,94	2,33	1,92	1,63	1,42	1,26	1,13	1,02	0,94	0,86	0,80	0,75	0,70	0,66	0,62	0,59	0,56	0,54	0,51
		ULS	3,26	2,76	2,42	2,16	1,97	1,80	1,65	1,55	1,44	1,35	1,28	1,22	1,16	1,10	1,05	1,01	0,98	0,93	0,87	0,80

Table 29 Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 120, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,61	3,40	2,66	2,16	1,80	1,54	1,33	1,17	1,03	0,92	0,83	0,75	0,68	0,58	0,48	0,40	0,33	0,27	0,22	0,18
		ULS	5,46	4,55	3,89	3,41	3,02	2,72	2,46	2,25	2,07	1,92	1,79	1,67	1,56	1,47	1,38	1,31	1,25	1,19	1,13	1,07
	suction	SLS	4,54	3,43	2,74	2,28	1,95	1,70	1,51	1,35	1,23	1,12	1,04	0,96	0,90	0,84	0,79	0,75	0,71	0,67	0,64	0,61
		ULS	3,60	3,03	2,63	2,33	2,10	1,91	1,76	1,62	1,52	1,43	1,34	1,26	1,20	1,14	1,10	1,05	1,01	0,96	0,93	0,90
Group II colours bright	pressure	SLS	4,61	3,40	2,66	2,16	1,80	1,54	1,33	1,17	1,03	0,92	0,83	0,75	0,68	0,58	0,48	0,40	0,33	0,27	0,22	0,18
		ULS	5,46	4,55	3,89	3,41	3,02	2,72	2,46	2,25	2,07	1,92	1,79	1,67	1,56	1,47	1,38	1,31	1,25	1,19	1,13	1,07
	suction	SLS	4,38	3,30	2,63	2,19	1,87	1,63	1,44	1,30	1,18	1,08	1,00	0,92	0,86	0,81	0,76	0,72	0,68	0,65	0,62	0,59
		ULS	3,44	2,90	2,52	2,25	2,03	1,85	1,71	1,59	1,49	1,40	1,31	1,25	1,19	1,13	1,08	1,04	0,99	0,95	0,92	0,89
Group III colours dark	pressure	SLS	4,61	3,40	2,66	2,16	1,80	1,54	1,33	1,17	1,03	0,92	0,83	0,75	0,68	0,58	0,48	0,40	0,33	0,27	0,22	0,18
		ULS	5,46	4,55	3,89	3,41	3,02	2,72	2,46	2,25	2,07	1,92	1,79	1,67	1,56	1,47	1,38	1,31	1,25	1,19	1,13	1,07
	suction	SLS	4,13	3,10	2,46	2,04	1,74	1,52	1,35	1,22	1,10	1,01	0,94	0,87	0,81	0,76	0,72	0,68	0,65	0,62	0,59	0,56
		ULS	3,18	2,70	2,37	2,12	1,92	1,76	1,64	1,52	1,43	1,34	1,26	1,20	1,14	1,10	1,05	1,01	0,96	0,93	0,90	0,87

Tablica 30 Maximum load of **THREE SPAN BEAM** roof panel PWD-PIR 160/200, thickness of facings 0.5 / 0.4 mm
Three joints. Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT - SUCTION / TO SUPPORT - PRESSURE

Roof panel PWD-PIR 160/200

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	4,96	3,71	2,93	2,40	2,01	1,73	1,50	1,32	1,17	1,05	0,95	0,86	0,78	0,72	0,66	0,56	0,46	0,39	0,32	0,27
		ULS	5,37	4,46	3,80	3,32	2,94	2,64	2,40	2,19	2,01	1,86	1,74	1,62	1,52	1,43	1,35	1,28	1,20	1,14	1,10	1,04
	suction	SLS	4,90	3,75	3,03	2,53	2,18	1,91	1,70	1,53	1,40	1,28	1,19	1,10	1,03	0,97	0,91	0,86	0,82	0,78	0,75	0,71
		ULS	3,56	2,99	2,60	2,30	2,07	1,89	1,74	1,61	1,50	1,41	1,34	1,26	1,20	1,14	1,10	1,05	1,01	0,98	0,93	0,90
Group II colours bright	pressure	SLS	4,96	3,71	2,93	2,40	2,01	1,73	1,50	1,32	1,17	1,05	0,95	0,86	0,78	0,72	0,66	0,56	0,46	0,39	0,32	0,27
		ULS	5,37	4,46	3,80	3,32	2,94	2,64	2,40	2,19	2,01	1,86	1,74	1,62	1,52	1,43	1,35	1,28	1,20	1,14	1,10	1,04
	suction	SLS	4,73	3,61	2,91	2,43	2,09	1,83	1,63	1,47	1,34	1,23	1,14	1,06	0,99	0,93	0,88	0,83	0,79	0,75	0,72	0,69
		ULS	3,36	2,84	2,46	2,19	1,98	1,82	1,68	1,56	1,46	1,37	1,29	1,23	1,17	1,11	1,07	1,02	0,99	0,95	0,92	0,89
Group III colours dark	pressure	SLS	4,96	3,71	2,93	2,40	2,01	1,73	1,50	1,32	1,17	1,05	0,95	0,86	0,78	0,72	0,66	0,56	0,46	0,39	0,32	0,27
		ULS	5,37	4,46	3,80	3,32	2,94	2,64	2,40	2,19	2,01	1,86	1,74	1,62	1,52	1,43	1,35	1,28	1,20	1,14	1,10	1,04
	suction	SLS	4,48	3,39	2,72	2,27	1,95	1,71	1,52	1,38	1,25	1,15	1,07	1,00	0,93	0,88	0,83	0,79	0,75	0,71	0,68	0,65
		ULS	3,08	2,60	2,28	2,04	1,85	1,70	1,58	1,47	1,38	1,31	1,25	1,19	1,13	1,08	1,04	0,99	0,96	0,93	0,90	0,87

TABLE OF LOADS PWS-PIR-CH PANELS Permissible loads and spans

Based on the research and calculations performed, there were developed table of permissible loads and span of wall and roof sandwich panels.
The following assumptions were made for the development of the tables:

- evenly distributed and thermal loads are applied to the boards; thermal load is caused by the difference in temperature between the external and internal facings;

- The characteristic value of the modulus of elasticity G is 3.2 MPa

- wall bends should not exceed 1/100 of span

- the outside temperature was assumed as follows for PWS - PIR - CH panels

a) in summer + 35 ° C (tropic), + 55 ° C, +65 ° C, + 80 ° C, which corresponds respectively to groups Colours: very bright, bright, dark

b) winter -20 ° C

- the internal temperature of the room was taken as follows for the plates PWS - PIR - CH:

a) maximum + 5 ° C
b) minimum 0 ° C (plate thickness 120 mm)
- 5 ° C (board thickness 160 mm and 180 mm)
- 20 ° C (board thickness 200 mm and 220 mm)

- the width of the extreme supports is not less than 40 mm, the width of the intermediate supports is not less than 60 mm

- ULS values should be compared with design loads
- SLS values should be compared with the characteristic loads

Table 1

Maximum load of **SINGLE SPAN BEAM** panel PWS-PIR-CH 120
Thickness of the facings 0,5 / 0,4 mm
Internal temperature 0˚C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,27	1,11	0,97	0,85
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	2,90	2,49	2,18	1,91	1,70	1,50	1,35	1,22	1,11	1,01	0,92	0,84
Group II colours bright	pressure	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,17	1,86	1,59	1,37	1,19	1,03	0,90	0,79
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	2,90	2,49	2,18	1,91	1,70	1,50	1,35	1,22	1,11	1,01	0,92	0,84
Group III colours dark	pressure	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,36	2,82	2,37	2,00	1,70	1,45	1,24	1,04	0,85	0,69	0,55
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	2,90	2,49	2,18	1,91	1,70	1,50	1,35	1,22	1,11	1,01	0,92	0,84
Płyta osłonięta (max. temp. zew. +35ºC)	pressure	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		SLS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	14,32	11,93	10,23	8,95	7,95	6,69	5,58	4,69	3,97	3,39	2,91	2,51	2,18	1,90	1,66	1,46	1,29	1,15	1,02	0,92
		SLS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	2,90	2,49	2,18	1,91	1,70	1,50	1,35	1,22	1,11	1,01	0,92	0,84

Table 2

Maximum load of **SINGLE SPAN BEAM** panel PWS-PIR-CH 160
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -5ºC, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 160

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	19,17	15,97	13,69	11,98	10,65	9,58	8,48	7,22	6,19	5,33	4,62	4,02	3,52	3,09	2,73	2,42	2,15	1,92	1,72	1,54
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	19,17	15,97	13,69	11,98	10,65	9,58	8,48	7,22	6,19	5,33	4,62	4,02	3,52	3,09	2,73	2,42	2,15	1,92	1,72	1,54
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,27	2,01	1,82	1,64	1,49	1,35	1,23	1,13
Group II colours bright	pressure	SLS	19,17	15,97	13,69	11,98	10,65	9,58	8,48	7,22	6,19	5,33	4,62	4,02	3,52	3,09	2,73	2,42	2,15	1,92	1,72	1,54
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	19,17	15,97	13,69	11,98	10,65	9,58	8,48	7,22	6,19	5,33	4,62	4,02	3,52	3,09	2,73	2,42	2,15	1,89	1,66	1,47
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,27	2,01	1,82	1,64	1,49	1,35	1,23	1,13
Group III colours dark	pressure	SLS	19,17	15,97	13,69	11,98	10,65	9,58	8,48	7,22	6,19	5,33	4,62	4,02	3,52	3,09	2,73	2,42	2,15	1,92	1,72	1,54
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	19,17	15,97	13,69	11,98	10,65	9,58	8,48	7,22	6,19	5,33	4,62	4,02	3,52	3,05	2,64	2,29	1,99	1,74	1,53	1,34
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,27	2,01	1,82	1,64	1,49	1,35	1,23	1,13
Płyta osłonięta (max. temp. zew. +35ºC)	pressure	SLS	19,17	15,97	13,69	11,98	10,65	9,58	8,48	7,22	6,19	5,33	4,62	4,02	3,52	3,09	2,73	2,42	2,15	1,92	1,72	1,54
		SLS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	19,17	15,97	13,69	11,98	10,65	9,58	8,48	7,22	6,19	5,33	4,62	4,02	3,52	3,09	2,73	2,42	2,15	1,92	1,72	1,54
		SLS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,27	2,01	1,82	1,64	1,49	1,35	1,23	1,13

Table 3

Maximum load of **SINGLE SPAN BEAM** panel PWS-PIR-CH 180
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -5ºC, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 180

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	21,60	17,99	15,42	13,49	11,99	10,79	9,81	8,56	7,37	6,38	5,55	4,85	4,26	3,75	3,32	2,95	2,63	2,35	2,11	1,90
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	21,60	17,99	15,42	13,49	11,99	10,79	9,81	8,56	7,37	6,38	5,55	4,85	4,26	3,75	3,32	2,95	2,63	2,35	2,11	1,90
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,04	1,83	1,67	1,52	1,38	1,28
Group II colours bright	pressure	SLS	21,60	17,99	15,42	13,49	11,99	10,79	9,81	8,56	7,37	6,38	5,55	4,85	4,26	3,75	3,32	2,95	2,63	2,35	2,11	1,90
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	21,60	17,99	15,42	13,49	11,99	10,79	9,81	8,56	7,37	6,38	5,55	4,85	4,26	3,75	3,32	2,95	2,63	2,35	2,11	1,89
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,04	1,83	1,67	1,52	1,38	1,28
Group III colours dark	pressure	SLS	21,60	17,99	15,42	13,49	11,99	10,79	9,81	8,56	7,37	6,38	5,55	4,85	4,26	3,75	3,32	2,95	2,63	2,35	2,11	1,90
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	21,60	17,99	15,42	13,49	11,99	10,79	9,81	8,56	7,37	6,38	5,55	4,85	4,26	3,75	3,32	2,92	2,56	2,25	1,98	1,75
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,04	1,83	1,67	1,52	1,38	1,28
Płyta osłonięta (max. temp. zew. +35ºC)	pressure	SLS	21,60	17,99	15,42	13,49	11,99	10,79	9,81	8,56	7,37	6,38	5,55	4,85	4,26	3,75	3,32	2,95	2,63	2,35	2,11	1,90
		SLS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	21,60	17,99	15,42	13,49	11,99	10,79	9,81	8,56	7,37	6,38	5,55	4,85	4,26	3,75	3,32	2,95	2,63	2,35	2,11	1,90
		SLS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,04	1,83	1,67	1,52	1,38	1,28

Table 4 Maximum load of **SINGLE SPAN BEAM** panel PWS-PIR-CH 200
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -20°C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 200

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	24,02	20,02	17,16	15,01	13,34	12,01	10,92	9,93	8,59	7,46	6,51	5,71	5,03	4,45	3,95	3,52	3,14	2,82	2,53	2,28
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	24,02	20,02	17,16	15,01	13,34	12,01	10,92	9,93	8,59	7,46	6,51	5,71	5,03	4,45	3,95	3,52	3,14	2,82	2,53	2,28
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,12	2,01	1,86	1,70	1,55	1,41
Group II colours bright	pressure	SLS	24,02	20,02	17,16	15,01	13,34	12,01	10,92	9,93	8,59	7,46	6,51	5,71	5,03	4,45	3,95	3,52	3,14	2,82	2,53	2,28
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	24,02	20,02	17,16	15,01	13,34	12,01	10,92	9,93	8,59	7,46	6,51	5,71	5,03	4,45	3,95	3,52	3,14	2,80	2,48	2,20
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,12	2,01	1,86	1,70	1,55	1,41
Group III colours dark	pressure	SLS	24,02	20,02	17,16	15,01	13,34	12,01	10,92	9,93	8,59	7,46	6,51	5,71	5,03	4,45	3,95	3,52	3,14	2,82	2,53	2,28
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	24,02	20,02	17,16	15,01	13,34	12,01	10,92	9,93	8,59	7,46	6,51	5,71	5,03	4,45	3,90	3,41	2,99	2,63	2,32	2,05
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,12	2,01	1,86	1,70	1,55	1,41
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	24,02	20,02	17,16	15,01	13,34	12,01	10,92	9,93	8,59	7,46	6,51	5,71	5,03	4,45	3,95	3,52	3,14	2,82	2,53	2,28
		SLS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	24,02	20,02	17,16	15,01	13,34	12,01	10,92	9,93	8,59	7,46	6,51	5,71	5,03	4,45	3,95	3,52	3,14	2,82	2,53	2,28
		SLS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,12	2,01	1,86	1,70	1,55	1,41

Table 5 Maximum load of **SINGLE SPAN BEAM** panel PWS-PIR-CH 220
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -20°C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 220

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	29,09	24,24	20,78	18,18	16,16	14,54	13,14	11,34	9,84	8,58	7,52	6,61	5,84	5,18	4,61	4,11	3,68	3,31	2,98	2,69
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	29,09	24,24	20,78	18,18	16,16	14,54	13,14	11,34	9,84	8,58	7,52	6,61	5,84	5,18	4,61	4,11	3,68	3,31	2,98	2,69
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,12	2,01	1,91	1,82	1,70	1,56
Group II colours bright	pressure	SLS	29,09	24,24	20,78	18,18	16,16	14,54	13,14	11,34	9,84	8,58	7,52	6,61	5,84	5,18	4,61	4,11	3,68	3,31	2,98	2,69
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	29,09	24,24	20,78	18,18	16,16	14,54	13,14	11,34	9,84	8,58	7,52	6,61	5,84	5,18	4,61	4,11	3,68	3,31	2,98	2,69
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,12	2,01	1,91	1,82	1,70	1,56
Group III colours dark	pressure	SLS	29,09	24,24	20,78	18,18	16,16	14,54	13,14	11,34	9,84	8,58	7,52	6,61	5,84	5,18	4,61	4,11	3,68	3,31	2,98	2,69
		ULS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	29,09	24,24	20,78	18,18	16,16	14,54	13,14	11,34	9,84	8,58	7,52	6,61	5,84	5,18	4,61	4,11	3,64	3,21	2,84	2,53
		ULS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,12	2,01	1,91	1,82	1,70	1,56
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	29,09	24,24	20,78	18,18	16,16	14,54	13,14	11,34	9,84	8,58	7,52	6,61	5,84	5,18	4,61	4,11	3,68	3,31	2,98	2,69
		SLS	5,22	4,35	3,74	3,26	2,90	2,61	2,37	2,18	2,01	1,86	1,74	1,62	1,53	1,44	1,37	1,31	1,25	1,19	1,13	1,08
	suction	SLS	29,09	24,24	20,78	18,18	16,16	14,54	13,14	11,34	9,84	8,58	7,52	6,61	5,84	5,18	4,61	4,11	3,68	3,31	2,98	2,69
		SLS	8,04	6,71	5,75	5,03	4,47	4,02	3,65	3,35	3,09	2,87	2,67	2,51	2,36	2,24	2,12	2,01	1,91	1,82	1,70	1,56

Table 6 Maximum load of **TWO SPAN BEAM** panel PWS-PIR-CH 120
Thickness of the facings 0,5 / 0,4 mm
Internal temperature 0°C**, Temperature difference included in the calculation.**

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	12,72	10,38	8,75	7,51	5,32	3,96	3,05	2,43	1,98	1,64	1,38	1,18	1,03	0,90	0,79	0,70	0,63	0,57	0,51	0,47
		ULS	1,82	1,47	1,23	1,07	0,95	0,86	0,78	0,72	0,66	0,62	0,59	0,56	0,53	0,50	0,47	0,45	0,44	0,41	0,40	0,38
	suction	SLS	12,26	9,99	8,42	7,27	6,40	5,72	5,17	4,72	4,34	3,85	3,25	2,79	2,41	2,11	1,86	1,66	1,49	1,34	1,21	1,10
		ULS	4,97	4,02	3,39	2,94	2,60	2,34	2,13	1,95	1,82	1,70	1,59	1,49	1,41	1,34	1,28	1,22	1,11	1,01	0,92	0,84
Group II colours bright	pressure	SLS	12,72	10,38	8,75	7,51	5,32	3,96	3,05	2,43	1,98	1,64	1,38	1,18	1,03	0,90	0,79	0,70	0,63	0,57	0,51	0,47
		ULS	1,82	1,47	1,23	1,07	0,95	0,86	0,78	0,72	0,66	0,62	0,59	0,56	0,53	0,50	0,47	0,45	0,44	0,41	0,40	0,38
	suction	SLS	12,11	9,87	8,31	7,18	6,32	5,65	5,11	4,67	4,30	3,62	3,05	2,61	2,26	1,97	1,74	1,55	1,38	1,25	1,13	1,03
		ULS	4,74	3,83	3,23	2,81	2,48	2,24	2,04	1,88	1,74	1,64	1,53	1,44	1,37	1,31	1,23	1,19	1,11	1,01	0,92	0,84
Group III colours dark	pressure	SLS	12,72	10,38	8,75	7,51	5,32	3,96	3,05	2,43	1,98	1,64	1,38	1,18	1,03	0,90	0,79	0,70	0,63	0,57	0,51	0,47
		ULS	1,82	1,47	1,23	1,07	0,95	0,86	0,78	0,72	0,66	0,62	0,59	0,56	0,53	0,50	0,47	0,45	0,44	0,41	0,40	0,38
	suction	SLS	11,88	9,67	8,15	7,04	6,21	5,55	5,03	4,59	3,97	3,28	2,76	2,35	2,01	1,72	1,50	1,31	1,16	1,03	0,92	0,83
		ULS	4,40	3,54	2,99	2,60	2,31	2,09	1,91	1,77	1,65	1,55	1,46	1,38	1,31	1,25	1,19	1,14	1,08	1,01	0,92	0,84
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	12,72	10,38	8,75	7,51	5,32	3,96	3,05	2,43	1,98	1,64	1,38	1,18	1,03	0,90	0,79	0,70	0,63	0,57	0,51	0,47
		SLS	1,82	1,47	1,23	1,07	0,95	0,86	0,78	0,72	0,66	0,62	0,59	0,56	0,53	0,50	0,47	0,45	0,44	0,41	0,40	0,38
	suction	SLS	12,57	10,25	8,64	7,46	6,56	5,85	5,29	4,82	4,43	4,10	3,65	3,13	2,72	2,39	2,11	1,88	1,69	1,52	1,38	1,26
		SLS	5,42	4,41	3,71	3,21	2,84	2,54	2,30	2,10	1,95	1,80	1,68	1,58	1,49	1,41	1,34	1,22	1,11	1,01	0,92	0,84

Table 7

Maximum load of **TWO SPAN BEAM** panel PWS-PIR-CH 160
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -5°C,Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 160

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	17,37	14,18	11,95	10,30	8,77	6,43	4,91	3,86	3,11	2,57	2,15	1,83	1,58	1,37	1,21	1,07	0,95	0,86	0,77	0,70
		ULS	1,79	1,43	1,19	1,02	0,90	0,81	0,74	0,68	0,63	0,59	0,56	0,53	0,50	0,47	0,45	0,44	0,41	0,40	0,38	0,37
	suction	SLS	16,78	13,67	11,50	9,91	8,71	7,77	7,01	6,39	5,70	4,68	3,91	3,32	2,86	2,48	2,18	1,93	1,72	1,54	1,39	1,26
		ULS	4,79	3,84	3,21	2,76	2,43	2,19	2,00	1,83	1,70	1,59	1,49	1,40	1,32	1,26	1,20	1,14	1,10	1,05	1,02	0,98
Group II colours bright	pressure	SLS	17,37	14,18	11,95	10,30	8,77	6,43	4,91	3,86	3,11	2,57	2,15	1,83	1,58	1,37	1,21	1,07	0,95	0,86	0,77	0,70
		ULS	1,79	1,43	1,19	1,02	0,90	0,81	0,74	0,68	0,63	0,59	0,56	0,53	0,50	0,47	0,45	0,44	0,41	0,40	0,38	0,37
	suction	SLS	16,60	13,52	11,37	9,80	8,61	7,68	6,94	6,32	5,35	4,38	3,65	3,09	2,65	2,30	2,01	1,78	1,58	1,41	1,26	1,13
		ULS	4,53	3,62	3,02	2,60	2,30	2,06	1,88	1,74	1,61	1,52	1,43	1,34	1,28	1,22	1,16	1,11	1,07	1,02	0,98	0,95
Group III colours dark	pressure	SLS	17,37	14,18	11,95	10,30	8,77	6,43	4,91	3,86	3,11	2,57	2,15	1,83	1,58	1,37	1,21	1,07	0,95	0,86	0,77	0,70
		ULS	1,79	1,43	1,19	1,02	0,90	0,81	0,74	0,68	0,63	0,59	0,56	0,53	0,50	0,47	0,45	0,44	0,41	0,40	0,38	0,37
	suction	SLS	16,35	13,30	11,18	9,64	8,47	7,56	6,83	6,05	4,69	3,66	2,91	2,37	1,95	1,63	1,38	1,19	1,03	0,90	0,79	0,70
		ULS	4,14	3,29	2,73	2,36	2,09	1,88	1,73	1,59	1,49	1,40	1,32	1,25	1,20	1,14	1,10	1,05	1,01	0,98	0,93	0,90
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	17,37	14,18	11,95	10,30	8,77	6,43	4,91	3,86	3,11	2,57	2,15	1,83	1,58	1,37	1,21	1,07	0,95	0,86	0,77	0,70
		SLS	1,79	1,43	1,19	1,02	0,90	0,81	0,74	0,68	0,63	0,59	0,56	0,53	0,50	0,47	0,45	0,44	0,41	0,40	0,38	0,37
	suction	SLS	17,12	13,96	11,75	10,13	8,90	7,93	7,15	6,51	5,98	5,29	4,45	3,79	3,27	2,85	2,51	2,23	1,99	1,79	1,62	1,47
		SLS	5,30	4,28	3,59	3,09	2,72	2,43	2,21	2,03	1,86	1,73	1,62	1,52	1,44	1,37	1,29	1,23	1,17	1,13	1,08	1,04

Table 8

Maximum load of **TWO SPAN BEAM** panel PWS-PIR-CH 180
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -5°C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 180

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	19,72	16,11	13,57	11,69	10,26	8,19	6,22	4,88	3,92	3,22	2,69	2,29	1,97	1,71	1,50	1,33	1,18	1,06	0,96	0,87
		ULS	1,77	1,41	1,17	1,01	0,89	0,80	0,72	0,66	0,62	0,57	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37
	suction	SLS	19,10	15,57	13,10	11,28	9,90	8,82	7,96	7,25	6,66	5,48	4,56	3,86	3,31	2,87	2,52	2,22	1,98	1,77	1,60	1,45
		ULS	4,76	3,80	3,17	2,72	2,39	2,15	1,95	1,79	1,65	1,55	1,46	1,37	1,31	1,23	1,17	1,13	1,08	1,04	0,99	0,96
Group II colours bright	pressure	SLS	19,72	16,11	13,57	11,69	10,26	8,19	6,22	4,88	3,92	3,22	2,69	2,29	1,97	1,71	1,50	1,33	1,18	1,06	0,96	0,87
		ULS	1,77	1,41	1,17	1,01	0,89	0,80	0,72	0,66	0,62	0,57	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37
	suction	SLS	18,92	15,41	12,96	11,17	9,80	8,74	7,88	7,18	6,30	5,13	4,27	3,60	3,08	2,66	2,33	2,05	1,82	1,63	1,46	1,31
		ULS	4,49	3,57	2,96	2,54	2,24	2,01	1,83	1,68	1,56	1,47	1,38	1,31	1,25	1,19	1,13	1,08	1,04	0,99	0,96	0,93
Group III colours dark	pressure	SLS	19,72	16,11	13,57	11,69	10,26	8,19	6,22	4,88	3,92	3,22	2,69	2,29	1,97	1,71	1,50	1,33	1,18	1,06	0,96	0,87
		ULS	1,77	1,38	1,04	0,87	0,83	0,80	0,72	0,66	0,62	0,57	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37
	suction	SLS	18,65	15,18	12,76	10,99	9,65	8,60	7,76	7,08	5,70	4,46	3,54	2,87	2,36	1,96	1,66	1,42	1,22	1,07	0,94	0,83
		ULS	4,08	3,17	2,52	2,15	1,91	1,76	1,65	1,53	1,43	1,35	1,28	1,20	1,16	1,10	1,05	1,01	0,98	0,95	0,90	0,87
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	19,72	16,11	13,57	11,69	10,26	8,19	6,22	4,88	3,92	3,22	2,69	2,29	1,97	1,71	1,50	1,33	1,18	1,06	0,96	0,87
		SLS	1,77	1,41	1,17	1,01	0,89	0,80	0,72	0,66	0,62	0,57	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37
	suction	SLS	19,45	15,88	13,37	11,52	10,11	9,00	8,12	7,39	6,78	6,16	5,16	4,39	3,78	3,29	2,89	2,56	2,28	2,05	1,85	1,68
		SLS	5,28	4,26	3,57	3,08	2,70	2,42	2,18	2,00	1,85	1,71	1,61	1,50	1,41	1,34	1,28	1,22	1,16	1,11	1,07	1,02

Table 9

Maximum load of **TWO SPAN BEAM** panel PWS-PIR-CH 200
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -20°C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 200

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	22,08	18,05	15,20	13,10	11,49	9,04	6,83	5,32	4,26	3,49	2,90	2,46	2,11	1,83	1,60	1,41	1,26	1,13	1,01	0,92
		ULS	1,76	1,40	1,16	0,99	0,87	0,78	0,71	0,65	0,60	0,56	0,53	0,50	0,47	0,45	0,43	0,41	0,40	0,38	0,37	0,35
	suction	SLS	21,16	17,24	14,49	12,48	10,95	9,75	8,62	6,59	4,95	3,77	2,94	2,33	1,88	1,54	1,28	1,07	0,91	0,78	0,67	0,58
		ULS	4,32	3,41	2,81	2,40	2,10	1,89	1,71	1,58	1,47	1,38	1,31	1,23	1,17	1,13	1,07	1,04	0,99	0,95	0,92	0,89
Group II colours bright	pressure	SLS	22,08	18,05	15,20	13,10	11,49	9,04	6,83	5,32	4,26	3,49	2,90	2,46	2,11	1,83	1,60	1,41	1,26	1,13	1,01	0,92
		ULS	1,76	1,13	0,75	0,59	0,54	0,54	0,59	0,65	0,60	0,56	0,53	0,50	0,47	0,45	0,43	0,41	0,40	0,38	0,37	0,35
	suction	SLS	20,98	17,07	14,35	12,35	10,84	9,66	7,50	5,21	3,72	2,71	2,01	1,52	1,16	0,90	0,70	0,55	0,44	0,35	0,28	0,22
		ULS	4,04	2,97	2,31	1,92	1,70	1,55	1,46	1,40	1,35	1,29	1,22	1,16	1,11	1,07	1,02	0,98	0,95	0,92	0,89	0,86
Group III colours dark	pressure	SLS	22,08	18,05	15,20	13,10	11,49	9,04	6,83	5,32	4,26	3,49	2,90	2,46	2,11	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	0,59	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,11	0,23	0,34	0,41	0,47	0,45	0,43	0,41	0,40	0,38	0,37	0,35
	suction	SLS	20,70	16,83	14,14	12,17	10,68	8,03	4,93	3,05	1,88	1,12	0,63	0,30	0,08	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	2,97	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,93	0,95	0,96	0,96	0,96	0,98	0,93	0,90	0,87	0,86	0,83	0,80
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	22,08	18,05	15,20	13,10	11,49	9,04	6,83	5,32	4,26	3,49	2,90	2,46	2,11	1,83	1,60	1,41	1,26	1,13	1,01	0,92
		SLS	1,76	1,40	1,16	0,99	0,87	0,78	0,71	0,65	0,60	0,56	0,53	0,50	0,47	0,45	0,43	0,41	0,40	0,38	0,37	0,35
	suction	SLS	21,53	17,56	14,78	12,73	11,17	9,94	8,96	7,63	6,06	4,93	4,09	3,44	2,94	2,54	2,21	1,95	1,73	1,55	1,39	1,26
		SLS	4,86	3,89	3,23	2,78	2,43	2,18	1,97	1,80	1,67	1,56	1,46	1,38	1,31	1,23	1,19	1,13	1,08	1,04	0,99	0,96

Table 10 Maximum load of **TWO SPAN BEAM** panel PWS-PIR-CH 220
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -20°C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 220

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	26,94	22,04	18,57	16,00	13,64	9,83	7,38	5,73	4,56	3,72	3,09	2,60	2,22	1,92	1,68	1,48	1,32	1,18	1,06	0,96
		ULS	1,74	1,38	1,14	0,98	0,86	0,75	0,69	0,63	0,59	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37	0,35
	suction	SLS	25,99	21,20	17,83	15,35	13,46	11,98	10,03	7,63	5,91	4,49	3,49	2,77	2,23	1,82	1,51	1,26	1,07	0,91	0,79	0,68
		ULS	4,28	3,36	2,75	2,28	1,98	1,79	1,65	1,53	1,43	1,34	1,26	1,20	1,14	1,08	1,04	1,01	0,96	0,93	0,90	0,87
Group II colours bright	pressure	SLS	26,94	22,04	18,57	16,00	13,64	9,83	7,38	5,73	4,56	3,72	3,09	2,60	2,22	1,92	1,68	1,48	1,32	1,18	1,06	0,96
		ULS	1,70	0,90	0,51	0,34	0,28	0,29	0,34	0,41	0,47	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37	0,35
	suction	SLS	25,80	21,03	17,68	15,22	13,35	11,88	9,16	6,37	4,55	3,33	2,48	1,87	1,44	1,11	0,87	0,69	0,55	0,44	0,36	0,29
		ULS	3,98	2,81	2,13	1,74	1,50	1,37	1,28	1,23	1,20	1,17	1,16	1,13	1,07	1,02	0,98	0,95	0,92	0,89	0,86	0,83
Group III colours dark	pressure	SLS	26,94	22,04	18,57	16,00	13,64	9,83	7,38	5,73	4,56	3,72	3,09	2,60	2,22	1,92	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	0,37	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,08	0,18	0,28	0,35	0,43	0,41	0,40	0,38	0,37	0,35
	suction	SLS	25,52	20,78	17,46	15,02	13,17	10,15	6,32	3,99	2,53	1,58	0,95	0,53	0,25	0,06	0,00	0,00	0,00	0,00	0,00	0,00
		ULS	2,81	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,80	0,81	0,83	0,84	0,86	0,86	0,84	0,81	0,80	0,77
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	26,94	22,04	18,57	16,00	13,64	9,83	7,38	5,73	4,56	3,72	3,09	2,60	2,22	1,92	1,68	1,48	1,32	1,18	1,06	0,96
		SLS	1,74	1,38	1,14	0,98	0,86	0,75	0,69	0,63	0,59	0,54	0,51	0,48	0,47	0,44	0,43	0,41	0,40	0,38	0,37	0,35
	suction	SLS	26,37	21,53	18,12	15,61	13,69	12,19	10,97	8,78	6,95	5,63	4,65	3,91	3,33	2,87	2,50	2,20	1,95	1,74	1,56	1,41
		SLS	4,85	3,87	3,20	2,73	2,40	2,15	1,94	1,77	1,64	1,53	1,44	1,35	1,28	1,22	1,16	1,11	1,07	1,02	0,98	0,95

Table 11 Maximum load of **THREE SPAN BEAM** panel PWS-PIR-CH 120
Thickness of the facings 0,5 / 0,4 mm
Internal temperature 0°C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 120

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	12,32	10,13	8,61	7,07	5,28	4,10	3,28	2,69	2,24	1,90	1,63	1,42	1,25	1,10	0,98	0,88	0,79	0,72	0,66	0,60
		ULS	2,09	1,74	1,50	1,32	1,17	1,07	0,98	0,90	0,83	0,78	0,72	0,69	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47
	suction	SLS	11,74	9,68	8,25	7,20	6,39	5,75	5,23	4,80	4,43	4,12	3,83	3,33	2,92	2,58	2,30	2,07	1,86	1,69	1,54	1,41
		ULS	5,58	4,65	4,01	3,51	3,14	2,84	2,60	2,39	2,21	2,06	1,94	1,82	1,70	1,50	1,35	1,22	1,11	1,01	0,92	0,84
Group II colours bright	pressure	SLS	12,32	10,13	8,61	7,07	5,28	4,10	3,28	2,69	2,24	1,90	1,63	1,42	1,25	1,10	0,98	0,88	0,79	0,72	0,66	0,60
		ULS	2,09	1,74	1,50	1,32	1,17	1,07	0,98	0,90	0,83	0,78	0,72	0,69	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47
	suction	SLS	11,55	9,54	8,13	7,11	6,31	5,69	5,18	4,75	4,39	4,09	3,63	3,15	2,76	2,45	2,18	1,95	1,76	1,60	1,46	1,33
		ULS	5,43	4,53	3,90	3,44	3,08	2,79	2,55	2,36	2,18	2,03	1,91	1,79	1,70	1,50	1,35	1,22	1,11	1,01	0,92	0,84
Group III colours dark	pressure	SLS	12,32	10,13	8,61	7,07	5,28	4,10	3,28	2,69	2,24	1,90	1,63	1,42	1,25	1,10	0,98	0,88	0,79	0,72	0,66	0,60
		ULS	1,82	1,74	1,50	1,32	1,17	1,07	0,98	0,90	0,83	0,78	0,72	0,69	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47
	suction	SLS	11,27	9,31	7,96	6,96	6,20	5,59	5,09	4,68	4,33	3,88	3,33	2,89	2,53	2,24	1,99	1,79	1,61	1,46	1,33	1,22
		ULS	5,21	4,35	3,77	3,32	2,99	2,70	2,48	2,30	2,13	2,00	1,86	1,76	1,67	1,50	1,35	1,22	1,11	1,01	0,92	0,84
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	12,32	10,13	8,61	7,07	5,28	4,10	3,28	2,69	2,24	1,90	1,63	1,42	1,25	1,10	0,98	0,88	0,79	0,72	0,66	0,60
		SLS	2,09	1,74	1,50	1,32	1,17	1,07	0,98	0,90	0,83	0,78	0,72	0,69	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47
	suction	SLS	12,12	9,98	8,49	7,39	6,55	5,88	5,34	4,89	4,52	4,19	3,91	3,53	3,13	2,78	2,47	2,21	1,98	1,78	1,61	1,46
		SLS	5,90	4,89	4,19	3,66	3,27	2,94	2,69	2,46	2,28	2,12	1,98	1,86	1,70	1,50	1,35	1,22	1,11	1,01	0,92	0,84

Table 12 Maximum load of **THREE SPAN BEAM** panel PWS-PIR-CH 160
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -5°C,Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 160

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	16,77	13,77	11,67	10,13	8,16	6,27	4,98	4,05	3,37	2,84	2,43	2,11	1,85	1,63	1,45	1,30	1,17	1,06	0,96	0,88
		ULS	2,03	1,68	1,44	1,28	1,14	1,04	0,95	0,87	0,81	0,75	0,71	0,66	0,63	0,60	0,57	0,54	0,51	0,50	0,48	0,45
	suction	SLS	15,98	13,13	11,16	9,71	8,61	7,73	7,03	6,44	5,95	5,22	4,47	3,87	3,38	2,98	2,65	2,37	2,14	1,94	1,76	1,61
		ULS	5,39	4,47	3,84	3,38	3,02	2,73	2,51	2,31	2,15	2,00	1,88	1,77	1,67	1,58	1,50	1,43	1,37	1,31	1,23	1,13
Group II colours bright	pressure	SLS	16,77	13,77	11,67	10,13	8,16	6,27	4,98	4,05	3,37	2,84	2,43	2,11	1,85	1,63	1,45	1,30	1,17	1,06	0,96	0,88
		ULS	1,53	1,49	1,44	1,28	1,14	1,04	0,95	0,87	0,81	0,75	0,71	0,66	0,63	0,60	0,57	0,54	0,51	0,50	0,48	0,45
	suction	SLS	15,75	12,95	11,01	9,59	8,51	7,65	6,95	6,38	5,84	4,92	4,20	3,63	3,17	2,80	2,49	2,23	2,00	1,81	1,65	1,51
		ULS	5,21	4,34	3,72	3,29	2,94	2,67	2,45	2,25	2,10	1,97	1,85	1,74	1,64	1,56	1,49	1,41	1,35	1,29	1,23	1,13
Group III colours dark	pressure	SLS	16,77	13,77	11,67	10,13	8,16	6,27	4,98	4,05	3,37	2,84	2,43	2,11	1,85	1,63	1,45	1,30	1,17	1,06	0,96	0,88
		ULS	0,00	0,03	0,35	0,65	0,89	1,04	0,95	0,87	0,81	0,75	0,71	0,66	0,63	0,60	0,57	0,54	0,51	0,50	0,48	0,45
	suction	SLS	15,41	12,68	10,79	9,41	8,36	7,52	6,85	6,29	5,31	4,46	3,80	3,27	2,83	2,47	2,17	1,93	1,72	1,55	1,40	1,28
		ULS	0,00	4,11	3,56	3,14	2,82	2,57	2,36	2,19	2,04	1,91	1,79	1,70	1,61	1,52	1,46	1,38	1,32	1,28	1,22	1,13
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	16,77	13,77	11,67	10,13	8,16	6,27	4,98	4,05	3,37	2,84	2,43	2,11	1,85	1,63	1,45	1,30	1,17	1,06	0,96	0,88
		SLS	2,03	1,68	1,44	1,28	1,14	1,04	0,95	0,87	0,81	0,75	0,71	0,66	0,63	0,60	0,57	0,54	0,51	0,50	0,48	0,45
	suction	SLS	16,43	13,50	11,45	9,95	8,81	7,90	7,17	6,56	6,05	5,62	5,00	4,33	3,79	3,35	2,98	2,67	2,41	2,18	1,99	1,82
		SLS	5,75	4,76	4,08	3,57	3,18	2,87	2,61	2,40	2,22	2,07	1,94	1,83	1,73	1,64	1,55	1,47	1,40	1,34	1,23	1,13

Table 13

Maximum load of **THREE SPAN BEAM** panel PWS-PIR-CH 180
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -5°C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 180

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	19,03	15,61	13,23	11,47	10,13	7,79	6,16	5,00	4,15	3,49	2,99	2,58	2,26	1,99	1,77	1,59	1,43	1,29	1,18	1,07
		ULS	2,01	1,67	1,43	1,26	1,13	1,02	0,93	0,86	0,80	0,75	0,71	0,66	0,63	0,59	0,56	0,54	0,51	0,50	0,47	0,45
	suction	SLS	18,18	14,93	12,67	11,01	9,75	8,75	7,95	7,28	6,72	5,98	5,11	4,41	3,86	3,40	3,02	2,70	2,43	2,20	2,00	1,83
		ULS	5,34	4,43	3,80	3,33	2,99	2,70	2,48	2,28	2,12	1,98	1,86	1,74	1,65	1,56	1,49	1,43	1,35	1,29	1,25	1,20
Group II colours bright	pressure	SLS	19,03	15,61	13,23	11,47	10,13	7,79	6,16	5,00	4,15	3,49	2,99	2,58	2,26	1,99	1,77	1,59	1,43	1,29	1,18	1,07
		ULS	1,02	0,98	1,08	1,23	1,13	1,02	0,93	0,86	0,80	0,75	0,71	0,66	0,63	0,59	0,56	0,54	0,51	0,50	0,47	0,45
	suction	SLS	17,94	14,73	12,51	10,88	9,64	8,66	7,87	7,21	6,66	5,64	4,81	4,15	3,62	3,19	2,83	2,53	2,28	2,06	1,87	1,71
		ULS	5,15	4,26	3,66	3,23	2,90	2,63	2,40	2,22	2,07	1,94	1,82	1,71	1,62	1,55	1,47	1,40	1,34	1,28	1,23	1,19
Group III colours dark	pressure	SLS	19,03	15,61	13,23	11,47	10,13	7,79	6,16	5,00	4,15	3,49	2,99	2,58	2,26	1,99	1,77	1,59	1,43	1,29	1,18	1,07
		ULS	0,00	0,00	0,00	0,12	0,43	0,66	0,84	0,86	0,80	0,75	0,71	0,66	0,63	0,59	0,56	0,54	0,51	0,50	0,47	0,45
	suction	SLS	17,57	14,43	12,27	10,68	9,47	8,52	7,75	7,11	6,11	5,12	4,36	3,76	3,26	2,84	2,50	2,21	1,98	1,78	1,60	1,46
		ULS	0,00	0,00	0,00	3,08	2,76	2,51	2,31	2,15	2,00	1,88	1,76	1,67	1,58	1,50	1,43	1,37	1,31	1,25	1,20	1,16
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	19,03	15,61	13,23	11,47	10,13	7,79	6,16	5,00	4,15	3,49	2,99	2,58	2,26	1,99	1,77	1,59	1,43	1,29	1,18	1,07
		SLS	2,01	1,67	1,43	1,26	1,13	1,02	0,93	0,86	0,80	0,75	0,71	0,66	0,63	0,59	0,56	0,54	0,51	0,50	0,47	0,45
	suction	SLS	18,67	15,32	12,99	11,28	9,97	8,94	8,10	7,41	6,84	6,34	5,71	4,94	4,32	3,81	3,39	3,04	2,73	2,48	2,25	2,06
		SLS	5,72	4,73	4,05	3,54	3,15	2,85	2,60	2,39	2,21	2,06	1,92	1,82	1,71	1,62	1,53	1,46	1,40	1,34	1,28	1,23

Table 14

Maximum load of **THREE SPAN BEAM** panel PWS-PIR-CH 200
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -20°C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 200

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	21,31	17,47	14,79	12,82	11,01	8,39	6,61	5,35	4,42	3,72	3,17	2,74	2,39	2,11	1,87	1,67	1,50	1,36	1,24	1,13
		ULS	0,00	0,00	0,18	0,44	0,65	0,84	0,92	0,86	0,80	0,74	0,69	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47	0,45
	suction	SLS	20,02	16,42	13,93	12,11	10,72	9,63	8,28	6,63	5,37	4,38	3,64	3,07	2,63	2,28	1,99	1,76	1,56	1,40	1,26	1,14
		ULS	0,00	0,00	3,54	3,12	2,79	2,54	2,34	2,16	2,01	1,89	1,77	1,68	1,59	1,50	1,44	1,37	1,31	1,26	1,20	1,16
Group II colours bright	pressure	SLS	21,31	17,47	14,79	12,82	11,01	8,39	6,61	5,35	4,42	3,72	3,17	2,74	2,39	2,11	1,87	1,67	1,50	1,36	1,24	1,13
		ULS	0,00	0,00	0,00	0,00	0,00	0,26	0,48	0,66	0,80	0,74	0,69	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47	0,45
	suction	SLS	19,77	16,21	13,76	11,97	10,60	9,43	6,94	5,28	4,14	3,32	2,72	2,26	1,91	1,64	1,42	1,24	1,09	0,97	0,87	0,78
		ULS	0,00	0,00	0,00	0,00	0,00	2,46	2,27	2,10	1,97	1,85	1,73	1,64	1,56	1,47	1,41	1,35	1,29	1,23	1,19	1,14
Group III colours dark	pressure	SLS	21,31	17,47	14,79	12,82	11,01	8,39	6,61	5,35	4,42	3,72	3,17	2,74	2,39	2,11	1,87	1,67	1,50	1,36	1,24	1,13
		ULS	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,23	0,40	0,54	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47	0,45
	suction	SLS	19,38	15,90	13,50	11,75	9,51	6,31	4,36	3,12	2,30	1,73	1,33	1,05	0,83	0,68	0,55	0,46	0,38	0,33	0,28	0,24
		ULS	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2,01	1,88	1,77	1,67	1,58	1,50	1,44	1,37	1,31	1,26	1,20	1,16	1,13
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	21,31	17,47	14,79	12,82	11,01	8,39	6,61	5,35	4,42	3,72	3,17	2,74	2,39	2,11	1,87	1,67	1,50	1,36	1,24	1,13
		SLS	1,98	1,64	1,41	1,23	1,11	1,01	0,92	0,86	0,80	0,74	0,69	0,65	0,62	0,59	0,56	0,53	0,51	0,48	0,47	0,45
	suction	SLS	20,54	16,84	14,27	12,39	10,96	9,83	8,92	7,67	6,32	5,30	4,51	3,89	3,39	2,98	2,64	2,36	2,12	1,92	1,74	1,59
		SLS	5,39	4,46	3,81	3,35	2,99	2,70	2,48	2,28	2,12	1,98	1,86	1,74	1,65	1,56	1,49	1,43	1,35	1,29	1,25	1,20

Table 15

Maximum load of **THREE SPAN BEAM** panel PWS-PIR-CH 220
Thickness of the facings 0,5 / 0,4 mm
Internal temperature -20°C, Temperature difference included in the calculation.

LOAD TOWARDS FROM SUPPORT – SUCTION / TO SUPPORT - PRESSURE

Wall panel PWS-PIR-CH 220

Group colours	Conditions load		Load kN / m² depending on the span																			
			1,5	1,8	2,1	2,4	2,7	3,0	3,3	3,6	3,9	4,2	4,5	4,8	5,1	5,4	5,7	6,0	6,3	6,6	6,9	7,2
Group I colours very brigh	pressure	SLS	26,03	21,33	18,05	15,64	11,76	8,91	6,99	5,64	4,65	3,90	3,32	2,86	2,49	2,19	1,95	1,74	1,56	1,41	1,28	1,17
		ULS	0,00	0,00	0,00	0,03	0,29	0,50	0,68	0,83	0,78	0,72	0,69	0,65	0,62	0,59	0,56	0,53	0,50	0,48	0,47	0,45
	suction	SLS	24,68	20,22	17,13	14,87	13,15	11,80	9,38	7,49	6,12	4,99	4,14	3,49	2,98	2,57	2,24	1,98	1,75	1,57	1,41	1,27
		ULS	0,00	0,00	0,00	3,06	2,75	2,51	2,30	2,13	1,98	1,86	1,74	1,65	1,56	1,49	1,41	1,35	1,29	1,25	1,20	1,16
Group II colours bright	pressure	SLS	26,03	21,33	18,05	15,64	11,76	8,91	6,99	5,64	4,65	3,90	3,32	2,86	2,49	2,19	1,95	1,74	1,56	1,41	1,28	1,17
		ULS	0,00	0,00	0,00	0,00	0,00	0,00	0,14	0,35	0,53	0,65	0,69	0,65	0,62	0,59	0,56	0,53	0,50	0,48	0,47	0,45
	suction	SLS	24,41	20,00	16,95	14,72	13,02	11,03	8,08	6,13	4,79	3,83	3,12	2,59	2,18	1,86	1,61	1,40	1,24	1,09	0,98	0,88
		ULS	0,00	0,00	0,00	0,00	0,00	0,00	2,22	2,06	1,92	1,80	1,70	1,61	1,53	1,46	1,40	1,32	1,28	1,22	1,17	1,13
Group III colours dark	pressure	SLS	26,03	21,33	18,05	15,64	11,76	8,91	6,99	5,64	4,65	3,90	3,32	2,86	2,49	2,19	1,95	1,74	1,56	1,41	1,28	1,17
		ULS	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,11	0,28	0,41	0,51	0,59	0,56	0,53	0,50	0,48	0,47	0,45
	suction	SLS	24,00	19,67	16,67	14,49	11,47	7,60	5,25	3,75	2,76	2,08	1,60	1,25	1,00	0,81	0,66	0,55	0,46	0,39	0,33	0,28
		ULS	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,73	1,64	1,55	1,47	1,41	1,35	1,29	1,23	1,19	1,14	1,10
Płyta osłonięta (max. temp. zew. +35°C)	pressure	SLS	26,03	21,33	18,05	15,64	11,76	8,91	6,99	5,64	4,65	3,90	3,32	2,86	2,49	2,19	1,95	1,74	1,56	1,41	1,28	1,17
		SLS	1,97	1,62	1,40	1,22	1,10	0,99	0,90	0,84	0,78	0,72	0,69	0,65	0,62	0,59	0,56	0,53	0,50	0,48	0,47	0,45
	suction	SLS	25,22	20,66	17,50	15,18	13,41	12,01	10,74	8,63	7,09	5,93	5,04	4,34	3,78	3,32	2,94	2,62	2,36	2,13	1,93	1,76
		SLS	5,36	4,41	3,78	3,32	2,96	2,67	2,45	2,25	2,10	1,95	1,83	1,73	1,64	1,55	1,47	1,41	1,35	1,29	1,23	1,19

Acoustic insulation PIRTECH panels

According to the PN-EN 14509: 2012-13 standard characterizing properties acoustic panels are:

a) parameters determined in accordance with PN-EN 10140 - 2: 2011, including:

- weighted sound insulation index Rw
- Spectral adaptive index C
- Spectral adaptive index Ctr

b) parameter determined according to PN-EN ISO 354: 2005 - sound absorption index α_w

Sandwich panels are a typical resonant circuit model: mass - rigidity - mass, characterized by the mass of facings is relatively small, and the stiffness of the core is relatively large. This causes that the resonance frequency of the system is in the midrange and high frequency. The system is very clearly marked in the characteristic of the element's acoustic insulation. As a result, in certain areas of the panel frequency with larger thickness can have significantly less acoustic insulation.

In case of joining the sandwich panels into „family", the acoustic parameters are determined for the whole group based on representative samples. For a given „family" of panels the laminated value of the Rw acoustic insulation index is determined on acoustic studies of the smallest and largest thickness of panels, accepting the most unfavorable test result. Spectral values of adaptive indicators C and Ctr are determined on the basis of the minimum norms for the group („families") of values of R_{A1} and R_{A2},indicators for acoustic insulation of noise spectrum characteristics. It can be assumed that the sound insulation of the acoustic indicators of all panels which belong to a given „family" will be no less than designated minimum values of sound insulation Rw, R_{A1} and R_{A2} for the whole group.

Summary of sound insulation indicators of tested PWS-PIR-ST, PWS-PIR-PL, PWD-PIR, PWS-PIR-CH sandwich panels

Panel type	Rw[dB]	C[dB]	R_{A1}[dB]	C_{tr}[dB]	R_{A2}[dB]
PWS-PIR-ST 40	27	-2	25	-4	25
PWS-PIR-ST 120	25	-3	22	-5	20
PWD-PIR 40	23	0	23	-3	20
PWD-PIR 120	24	-2	22	-4	20
PWS-PIR-CH	26	-4	22	-5	21
Min values wall panels PWS-PIR-ST 40-120 mm PWS-PIR-PL 60-120 mm PWS-PIR-CH 120-220 mm	25	-3	22	-5	20
Min values wall panels PWD-PIR 40-120 mm	23	-1	22	-3	20

R_{A1} –the sum of the weighted Rw acoustic insulation index and the spectral adaptive index C
R_{A2} –the sum of the Rw measured acoustic insulation index and the spectral adaptive index Ctr

Reverberate pointer sound absorption

Sound reverberation rate – α_W is a parameter which includes in calculations the spread of noise inside the building and the shaping of the reverberation conditions in the rooms. The values in the table below show the values of the sound absorption indicator - class absorption E.

Plate type	α_W
Sandwich panels PWS-PIR-ST 40-120 mm PWS-PIR-PL 60-120 mm, PWS-PIR-CH 120-220 mm	0,15
Sandwich panels PWD-PIR 40-120 mm	0,20

Thermal insulation for wall panels and roofing

PIRTECH sandwich panels have very good heat insulating properties. The tests and calculations confirmed the high quality and constant repeatability of the insulation parameters that has been achieved by application of the highest quality core components and optimum design of longitudinal joints. For PWS - PIR - ST, PWS - PIR - PL panels and PWD - PIR declared core heat transfer coefficient at +10°C is λ_D = 0,023 W/(mK) (included aging additive). In case of panels for cold storage PWS - PIR - CH in the heat conductivity coefficient depends on the mean baffle temperature. (Included aging additive).

average temperature baffles [°C]	Heat conduction coefficient λ_{obl} [W/mK] (Incorporated aging allowance included)
+5	0,0218
0	0,0213
-5	0,0207

Thermal insulation Scope of application

The values of the heat transfer coefficient Uc are summarized in the table

Based on the results of the research, calculation and based on the Regulation of the Minister Transport, Construction and Maritime Economy of 05.07.2013r. changing the regulation on technical conditions to be met by buildings and their location has defined the scope of application of PIRTECH sandwich panels.

- Wall panels with a core thickness of 100 mm or more can be usedin public and industrial buildings with roomsinternal designed temperature **ti > 16˚C**
- Wall panels with a core thickness of 60 mm and 80 mm can be used In public and internal designed temperature **8˚C < ti ≤ 16˚C**
- wall panels with a core thickness of 40 mm and 50 mm can be used In public and industrial buildings with rooms internal designed temperature **ti ≤ 8˚C**
- Roof panels with a core thickness of 120 mm or more can be used In public and industrial buildings with rooms internal designed temperature **ti > 16˚C**
- Roof panels with a core thickness of 80 mm and 100 mm can be used In public and industrial buildings with rooms internal designed temperature **8˚C < ti ≤ 16˚C**
- 40 mm and 60 mm core panels can be usedIn public and industrial buildings with rooms internal designed temperature **ti ≤ 8˚C**

Thermal Insulation
Selection of panels

Using the table on page 49, we can efficiently select the panel for our needs.

	Type of plate	Plate core thickness [mm]	U W/(m²K)	Uc W/(m²K)
1	PWS-PIR-ST	40	0,59	0,60
		50	0,45	0,46
		60	0,38	0,38
		80	0,28	0,29
		100	0,23	0,23
		120	0,19	0,19/0,18*
2	PWS-PIR-PL	60	0,40	0,41
		80	0,29	0,30
		100	0,23	0,23
		120	0,19	0,19
3	PWD-PIR	40	0,53	0,53
		60	0,36	0,37
		80	0,28	0,28
		100	0,22	0,23
		120	0,18	0,18
		160	0,14	0,14
4	PWS-PIR-CH	120	0,18	0,18
		160	0,13	0,14
		180	0,12	0,12
		200	0,10	0,11
		220	0,09	0,10

Fire safety

Fire safety of buildings is an essential element which determines the choice of suitable building materials.
Roof and wall panels with polyurethane core PIR on base of fire tests have been classified as a reaction to fire, flame propagation and fire resistance.
The test model for checking the reaction to fire was prepared in accordance with PN - EN 14509 standard.

Panel type	Panel thickness [mm]	Flame propagation PN – B – 02867:1990 + Az1:2001	Class reaction to fire PN - EN 13501-1+A1:2010
PWS-PIR-ST	40-60	NRO	B-s2, d0
	80	NRO	B-s1,d0
	100	NRO	B-s1, d0
	120	NRO	B-s1, d0
PWS-PIR-PL	60-100	NRO	B-s2, d0
	120	NRO	B-s1, d0
PWS-PIR-CH	120-220	NRO	B-s1, d0

Panel type	Panel thickness [mm]	External exposure to fire PN – EN 13501 – 5	Class reaction to fire PN - EN 13501-1+A1:2010
PWD-PIR	40-100	B_{roof}	B-s2, d0
PWD-PIR	120-160	B_{roof}	B-s1, d0

Explanations to the table:
NRO – non flame propagation
B_{roof} – external exposure to fire - non-spreading fire
B-s1, d0; B-s2, d0, – no flammable, no smoky, no dropping; according to ITB 401/2004, the product does not spread fire inside buildings provided the panels are fastened directly to the elements of class A1 or A2 reaction to fire (except gypsum plasterboards) or at any distance from them

Fire resistance roof panels

Class of fire resistance of loaded roofs of multi-span panels PWD - PIR with polyurethane foam core type PIR thicknesses from 100 mm to 160 mm according to EN 13501-2 + A 1: 2010 - REI30 /RE60 is subject to the following conditions:

- use of a fire resistance structure – the class at least R30 or R60,
- the outer lining are joined together in a longitudinal contact (high fold) self-drilling fasteners or steel rivets tight at max. 300 mm,
- sheet metal machining is fastened to the plates with self-drilling fasteners or rivets Steel tight in a spacing of max. 300 mm,

Sandwich panels are not loaded with concentrated forces, eg from suspended installations, ventilation ducts, etc. Span torque from uniformly distributed load (including load snow) cannot exceed Mpr = 0.13 kNm / m (per meter width disc). Support torque from uniformly distributed load (including load snow) cannot exceed Mpd = -0.16 kNm / m (per meter width disc). It is necessary in calculations to accept snow loads of 0.2 x Sk - where Sk is a characteristic snow load in Poland according to the PN - EN 1991-1-3: 2005 in a given zone (according to the location of the facility) or according to the country recommendations in this regard.

Panel type	Panel thickness [mm]	Fire resistance PN – EN 13501-2+A1:2010	Class fire resistance of construction	Pitch of the roof
PWD-PIR	40 - 80	Not tested	-	-
PWD-PIR	100-160	REI30 RE60	≤ R30 ≤ R60	From 0° to 15° From 0° to 15°

Fire resistance Wall panels

Class of fire resistance and stage of spreading fire on division walls should be adjusted to building class of fire resistance. In buildings class D and E division walls must be made as at least poorly spreading fire (SRO). In buildings of danger for people ZL II category (facilities for disabled people e. g. hospitals) division walls are required to be NRO – non flame propagation.
To category ZL IV of endangerment for people are qualified residential buildings.
Required class of fire resistance for the building, which is assigned to ZL category, is presented in the table below:

Division walls of Buildings of class A to C are required to be qualified as non-spreading fire, but their fire resistance class should be:
- For class C - EI 15,
- For class B - EI 30,
- For class A - EI 60.

building	ZL I	ZL II	ZL III	ZL IV	ZL V
Low (N)	”B”	”B”	”C”	”D”	”C”
Two-story (SW)	”B”	”B”	”B”	”C”	”B”
High (W)	”B”	”B”	”B”	”B”	”B”
High-rise (WW)	”A”	”A”	”A”	”B”	”A”

Elements of the building , according to its fire resistance class, should satisfy requirements from the table below:

Plate type	Plate thickness [mm]	Class of fire resistance PN-EN 13501-2+A1:2010/ PN-EN 13501-2:2016-07	Fire activity	Class fire resistance of construction	Vertical max. span of construction	Horizontal max. span of construction
PWS-PIR-ST	40 – 50	Not tested	-	-	-	-
	60 – 80	EI15	(o↔i)	≥ R15	-	from 4,00 m
	60 – 80	E20	-	≥ R20	-	from 3,00 m
	60 – 80	E30	(o↔i)	≥ R30	-	from 3,00 m
	100 – 120	EI15	(o↔i)	≥ R15	from 7,50 m	from 7,50 m
	100 – 120	EI20	-	≥ R20	from 7,50 m	from 7,50 m
	100 – 120	EI30	(o↔i)	≥ R30	from 4,00 m	from 7,50 m
	100 – 120	EI45	-	≥ R45	-	from 4,00 m
PWS-PIR-PL	60 - 100	Nie badano	-	-	-	-
	120	EI15	(o↔i)	≥ R15	-	from 7,50 m
	120	EI20	-	≥ R20	-	from 7,50 m
	120	EI30	(o↔i)	≥ R30	-	from 7,50 m
PWS-PIR-PL	120	EI60	(o→i)	≥ R60	-	from 4,00 m
	120	E60	(o→i)	≥ R60	-	from 6,00 m
PWS-PIR-CH	120 - 180	EI15	(o↔i)	≥ R15	from 7,50 m	from 7,50 m
	120 – 180	EI20	-	≥ R20	from 7,50 m	from 7,50 m
	120 - 180	EI30	(o↔i)	≥ R30	from 7,50 m	from 4,00 m
	200 - 220	EI15	(o↔i)	≥ R15	from 7,50 m	from 7,50 m
	200 - 220	EI20	-	≥ R20	from 7,50 m	from 7,50 m
	200 - 220	EI30	(o↔i)	≥ R30	from 7,50 m	from 7,50 m
	200 - 220	EI45	-	≥ R45	from 7,50 m	from 7,50 m
	200 - 220	EI60	(o↔i)	≥ R60	from 4,00 m	from 4,00 m

Explanation to the table:
E – fire integrity in minutes - means that on the non - heated side of panel in given time will not appear continuous flames
I – fire insulation in minutes - means that on the non-heated side of the panel in given time the temperature will not exceed 180°Cor the average of all measured points will not exceed 140°C
R – fire resistance in minutes - means the ability of the test element to maintain test load without exceeding specified criterion in relation to size and speed of movement

Corrosion resistance

Due to corrosion resistance, sandwich panels with rigid foam core PIR can be used in the following environments:
PWS - PIR - ST / PWS - PIR - PL / PWD - PIR / PWS - PIR - CH with coating
Zinc Z187.5 Z200 and Z275 with SP25, SP35, PVDF25, PVDF35 organic coatings
Or PUR50, can be used in environment of corrosivity atmosphere category A1,
A2, A3, A4, according to table A.1 of the standard PN-EN 10169 + A1: 2012 and outside objects,
In environments with corrosivity class C1, C2 and C3 according to PN-EN ISO standard
12944-2: 2001;

- PWS boards - PIR - ST / PWS - PIR - PL / PWD - PIR / PWS - PIR - CAZ185 aluminum-zinc can be used inside objects in environments atmospheric corrosivity categories A1, A2, A3, A4, according to table A.1 PNEN 10169 + A1: 2012 and outside of objects, in environments of corrosivity category C1, C2 and C3 atmospheres according to PN-EN ISO 12944-2: 2001;

- PWS boards - PIR - ST / PWS - PIR - PL / PWD - PIR / PWS - PIR - CH in stainless steel facings can be used inside objects in environments atmosphere corrosivity category A1, A2, A3, A4, A5, according to table A.1 of the PN-EN standard 10169 + A1: 2012 and outside of objects, in environments of corrosivity category C1, C2, C3 and C4 atmospheres according to PN-EN ISO 12944-2: 2001;

- PWS - PIR - ST / PWS - PIR - PL / PWD - PIR / PWS - PIR - CH with coating Zinc Z200 or higher weight, with organic coating SP15, can be used Inside objects, environment of corrosivity atmosphere category A1, A2, A3, According to table A.1 of the standard PN-EN 10169 + A1: 2012;

- PWS - PIR - ST / PWS - PIR - PL / PWD - PIR / PWS - PIR - CH with coating Zinc Z200 and Z275 or aluminum-zinc coating AZ150, without additional security, can be used inside objects, in categories atmospheric corrosion A1, A2, according to table A.1 of the standard PN-EN 10169 + A1: 2012.

Corrosion categories	Corrosivity environment	Application	Examples Environments
C1	very small	inside	heated buildings with a clean atmosphere, such as offices, shops, schools, hotels
C2	small	outside	the atmosphere to a low degree of contamination; mainly rural area indoor
		inside	buildings unheated where condensation may take place - magazines, sports halls
C3	average	outside	Urban and industrial atmosphere, medium Sulfur oxide (IV) pollution; Coastal areas low salinity
		inside	Production areas with high humidity and certainty air pollution, egg foodstuffs, laundries, breweries, dairies
C4	large	outside	industrial areas and coastal areas of medium size salinity
		inside	chemical plants, swimming pools, ship repair yards and boat

Corrosion categories and examples environments according to PN-EN ISO 12944-2

Protective coatings

We offer you a wide range of products tailored to your cold storage environments and environments with controlled atmosphere. We offer full choice of suitable protective coatings on both sides of the panels according to your requirements.

Protective coatings - properties					
Type of coating	Thickness [µm]	resistance to corrosion	resistance to abrasion	resistance to scratching	resistance to dirt
Polyester gloss	25	**	*	**	**
Polyester mat	35	**	**	**	**
Coarse polyester	35	**	**	**	**
PVDF	35	***	**	***	****
Polyurethane	50	***	***	***	****
colorcoat HPS200	200	***	****	****	****
PVC film *	120/150	****	***	***	***
PET collagen*	55	****	****	****	****

Rating scale from * to **** - where **** means the highest rating
* - special coatings available on request

Protective coatings Environmental classifications inside of the building

The table below shows examples of buildings classified in six groups per increasing degree of threat (defined by the following standards). This makes it possible to choose the appropriate protective coating according to your needs. When choosing, we must take into consideration that the right selection of the coating may also be influenced by other parameters than those shown in the table: room functions, type of finish, type of mechanical impact on panels (friction, impact), external environment. That is why we recommend a thorough evaluation of environment in the cold storage building or controlled room atmosphere. We will help you in choosing the right covering, taking into consideration all specific requirements.

	classification environment	resistance to cleaning	air humidity	internal temperature	Example of rooms	Polyester 25 - 35 µm	PVDF 35 µm	Polyurethan 50 µm	HPS 200 µm	film PVC 120-150 µm	55 µm PET laminate
Ai1	environment non-aggressive	current maintenance	Low	- 40°C Up to +25°C	Dry products storage in packages, freezing, storage of frozen and deep-frozen products (except for fish without packaging), clean and sterile rooms.	V	V	V	V	V	V
Ai2	environment non-aggressive	Current maintenance	average	0°C Up to +25°C	Chilling, sorting, fruit and vegetable packaging, storage in a controlled atmosphere, storage and preservation of dairy or meat products in packages	V	V	V	V	V	V
Ai3	environment non-aggressive	Not intense cleaning	high	0°C Up to +30°C	Storage, preparation in a humid environment (lettuce, flowers, fruits), cooling of meat products, ice cream production	X	V	V	V	V	V
Ai4	low agressive environment	nonintensive cleaning	wet environment possibility of condensation	0°C Up to +35°C	Cold stores for lettuce, ready-made meals, rooms slaughter of poultry, rabbits, wine cellars, butter production, cutting of meat, butcher production	X	V	V	V	V	V
Ai5	environment agressive	cleaning intensive	very wet environment possibility of condensation	0°C Up to +35°C	Slaughter rooms for sheep, cattle, pigs, goats, crops of mushrooms, kitchens, driers, smoke rooms, baking, removing guts, ripening cheeses, bakeries, storage and freezing fish without packaging	X	X	X	X	V	V
Ai6	environment very agressive	cleaning intensive	environment saturated with water	0°C Up to +40°C	Washbasins, showers, tricot, leather flashing, salting, pickling, Dairies for milk and cheese production, processing and seafood preparation	X	X	X	X	X	X

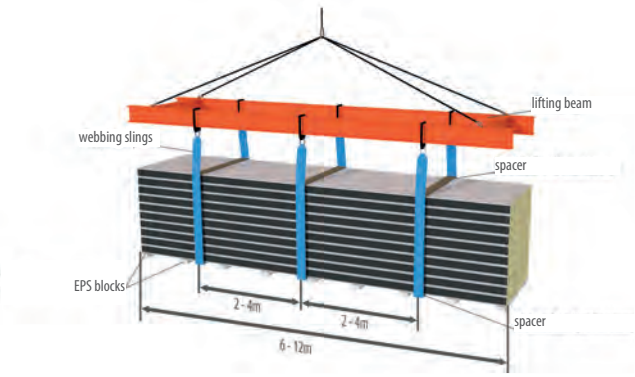
PN-EN 10169-3: Flat steel products with continuous coating - Part 3: Products used in building interiors.
NF P 75-401 (DTU 45.1): Thermal insulation of refrigerated buildings and rooms with controlled atmosphere
XP P 34-301: Coated or coated steel sheets and tapes, coated or laminated for indoor use.

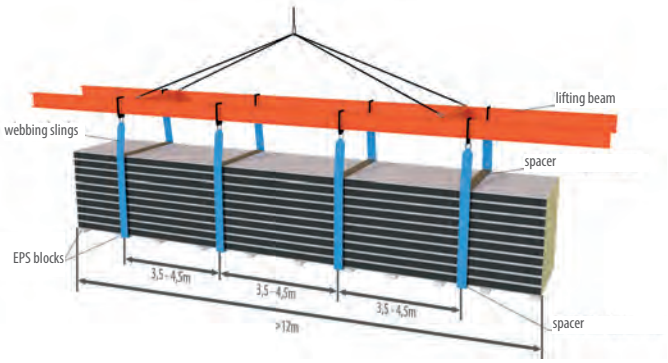
Transport and storage

The recommended transport of sandwich panels is the car truck (tractor + semitrailer of not less than the length of the loaded plates) with open semi-trailer or side-loading on both sides of the length. The weight of the load must not exceed the allowable load capacity of the kit.
Transport belts should be arranged on the load at a distance of max. every 3 m, but not less than 2 belts per package - belt tension cannot cause plate deformation.

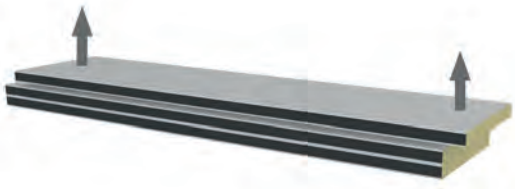
For the unloading the panels up to 6m, the use of trolleys with forks is permitted with adjustable fork width, however, the forks should have spacing min. 2m and minimum width 150mm. For lifting packages above the length 6m the transport belts and traverse should be used. For parcels with a length of 6-12m, belts should have min. width 200mm and be spaced every 2-4m. Indicated spacing between belts for parcels longer than 12m is 3.5-4.5m at min. Belt width 200mm. It is recommended to set belts on wooden spacers with min. width 300mm and min. thickness 25mm placed at the bottom and top of the pack.

It is prohibited to use steel ropes or chains. Do not lift packages on crimping belts, crossing, and otherwise damaging commodity.





Hand unloading is acceptable for panels up to 6m long when unloading individually and with specific caution. It is forbidden to pull panels on the ground and one on another.



Transport and storage

The sandwich panels should be stored in packages (posts), storage may be allowed max two packages on top of each other, but the number of panels cannot exceed the specified in the table.

Type panel	Thickness	Panels Quantity in package
PWS-PIR-ST	40	28
	50	22
	60	18
	80	14
	100	11
	120	9
PWS-PIR-PL	60	18
	80	14
	100	11
	120	9
PWD-PIR	40	18
	60	14
	80	10
	100	8 / non-standard 10
	120	8
	160	6
PWS-PIR-CH	120	9
	160	7
	180	6
	200	5
	220	5

It is recommended to store the panels on a level surface (square, hall) on the joists or styrofoam backers, which must be spaced up to 2.5 m (with panels of total length up to 2.5 m should be min. 3 backers). The package should be protected against moisture and UV radiation.

Panels should be stored in closed but airy rooms at a normal temperature away from acids, fertilizers, salts and other substances corrosive.

The exact guidelines for storage can be found on the labels commodities in each case on parcels with delivered material and reverse purchase invoice.

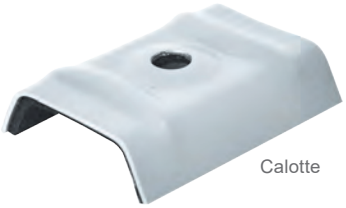
Maintenance and cleaning

The external and internal facings should be clean with fluids suitable chemical composition, tailored to the given shell, so as not to discoloured coating.

Regardless of the location of the building to prevent premature aging, wall and roof facings must be subject to regular inspection and maintenance at least once a year. Any possible defects in the coating should be cleaned and painted with renovation paint in the colour of the facing.

Fasteners for sandwich panels

PWS-PIR-ST / PWS-PIR-PL / PWD-PIR-PL sandwich panels are assembled to steel construction with self-drilling fasteners. Self-drilling fastenings are used to assemble the panels to the steel structure of maximum wall thickness 14 mm. The fastenings are made of tempered carbon steel secured against corrosion. All fastenings are equipped with vulcanized EPDM washers. The diameter of the working thread is 5.5 mm. The PWD-PIR panels are mounted with two or three fasteners in width using a calotte – in case of trapezoidal folds.



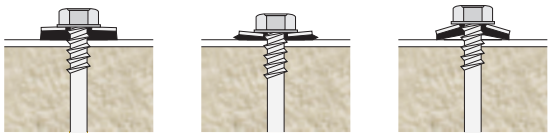
Calotte

In case of steel structures where thickness exceeds 14 mm and concrete there are other fasteners available:

- For steel substrates (thicker than 14 mm) - special self-tapping fasteners are recommended with an appropriately shaped thread of the working thread,
- Special fasteners with an expansion joint are recommended for the concrete substrate or self-tapping with specially shaped working thread.

Example of connector

We recommend usage of specialized power tools – screwdrivers with a special head for proper fastening and limitation of fastening depth. The pressure of the connector should be adjusted in such a way not to deform the washers - as shown.



right wrong wrong

After the completion of the installation remove any impurities, and in particular filings and shavings. Any break in the continuity of the coating must be absolutely safeguarded with paints in the colour of the facing. We make corrections by point-avoiding painting of larger surfaces.

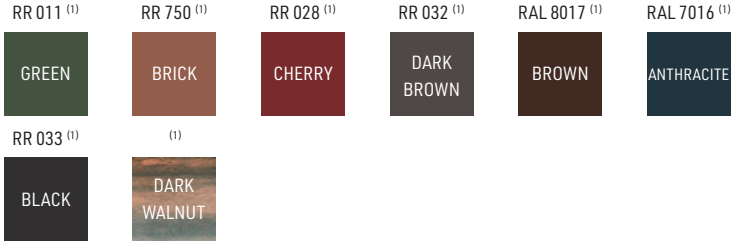
POLYESTHER COVERINGS

glossy PS 25 µm

10/30 Guarantee* for years

The 25 µm layer of polyester varnish is an effective protection against the destructive effects of UV radiation. The coating protects the steel against corrosion and ensures color durability for years. Products with a gloss polyester (PS) coating are granted even a 30-year warranty.

PMG 35 µm coarse matt



15/35 Guarantee* for years

The coarse-grained PMG polyester coating is 35 µm of effective protection against external factors. Used primarily for cut-to-size steel roof tiles, it creates a modern, matt finish for the building.

TOPMAT

20/35 Guarantee* for years

TOPMAT® is a 35 µm thick matt polyester surface. It has 20% higher resistance to discoloration and higher corrosion resistance than the ordinary polyester coating. It's designed for panel roof tiles.

HYBRID COATINGS

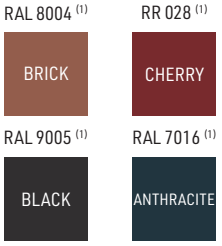
PURMAX
POWŁOKA HYBRYDOWA

20/40 Guarantee* for years

This coating is a combination of 25 µm polyester and 15 µm thick polyurethane. It is characterized by a very high resistance to mechanical damage thanks to innovative methods of hardening varnishes with the use of UV radiation.

POLYURETHANE COVERINGS

PURLAK



PURMAT

30/50 Guarantee* for years

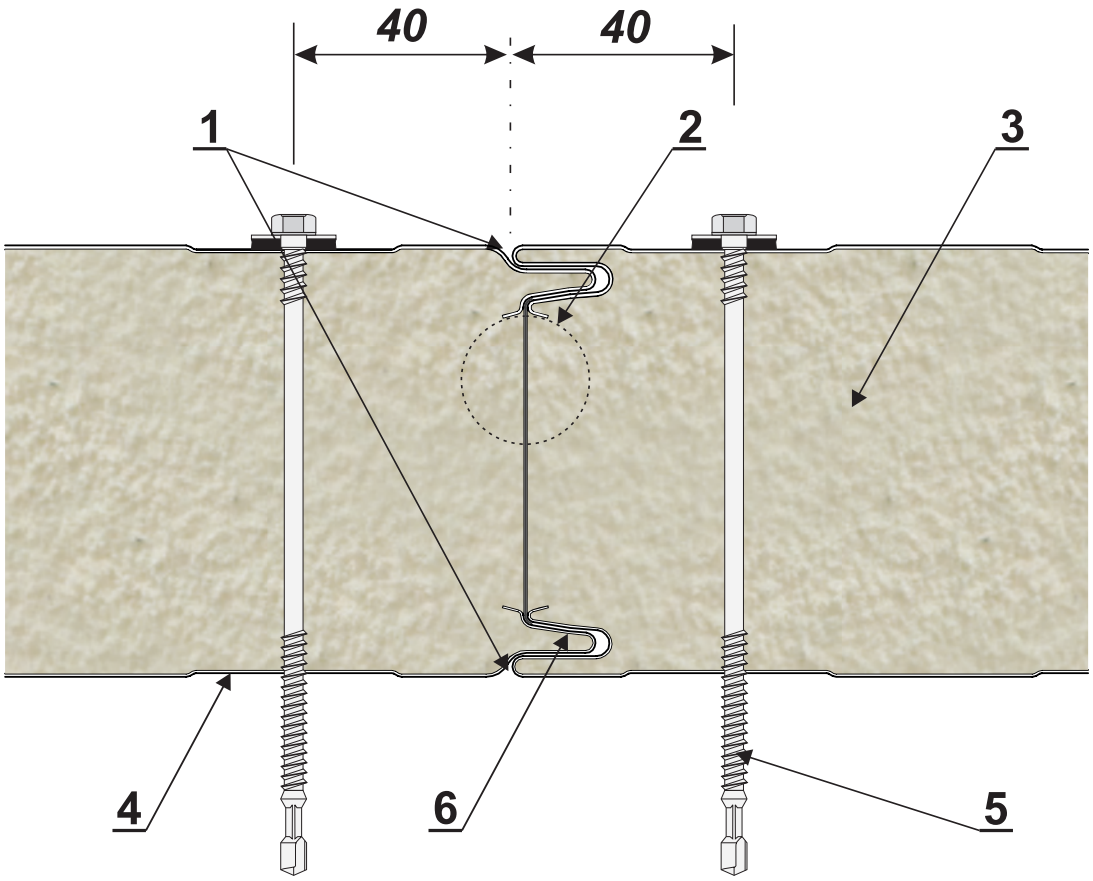
The polyurethane coverings PURLAK (gloss) and PURMAT (mat) are a 50-micron layer that effectively protects the cover against the harmful effects of sunlight. The risk of corrosion has been minimized, so that the coating can be used even in areas with a high degree of environmental aggressiveness.

(1) steel sheet thickness 0.5 mm, (2) steel sheet thickness 0.7 mm, (3) steel sheet thickness 1.0 mm,
Actual colours may vary from displayed or printed images. The shades of the coatings may vary depending on the steel coil from the product is made of.
If the customer requires a specific shade of coating color, please inform the sales person when placing the order.
*The length of the guarantee depends on the type of guarantee (aesthetic or technical). Check the conditions on the website pruszynski.com.pl or ask at the point of sale.

Connecting PWS-PIR-ST panels Joint

Panels with visible joints are dedicated to projects, where investor`s basic criteria are technical properties of the building rather than looks of the façade. Buildings with such properties are: storage halls, production halls, food and industrial storages.

Figure 1

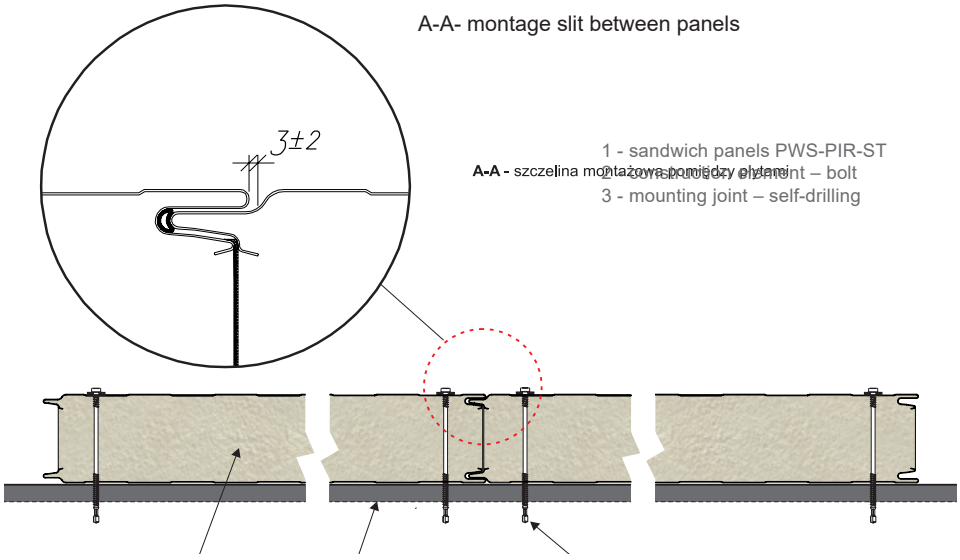


1 - longitudinal joint enhancing fire tightness and thermal isolation
2 - continuous polyurethane seal and aluminum film served during production are counteracting steam infiltration and sustain high heat isolation
3 - stiff polyurethane foam core PIR, non-harmful for natural environment of very low heat transfer coefficient
4 - variety of internal and external facings profilation, assures esthetic look of panels
5 - panel`s mounting joints for load-bearing construction
6 - conical shape and optimal choice of longitudinal slope contact surface angle allow quick and precise assembly

Connecting PWS-PIR-ST panels
Joint

VERTICAL SYSTEM

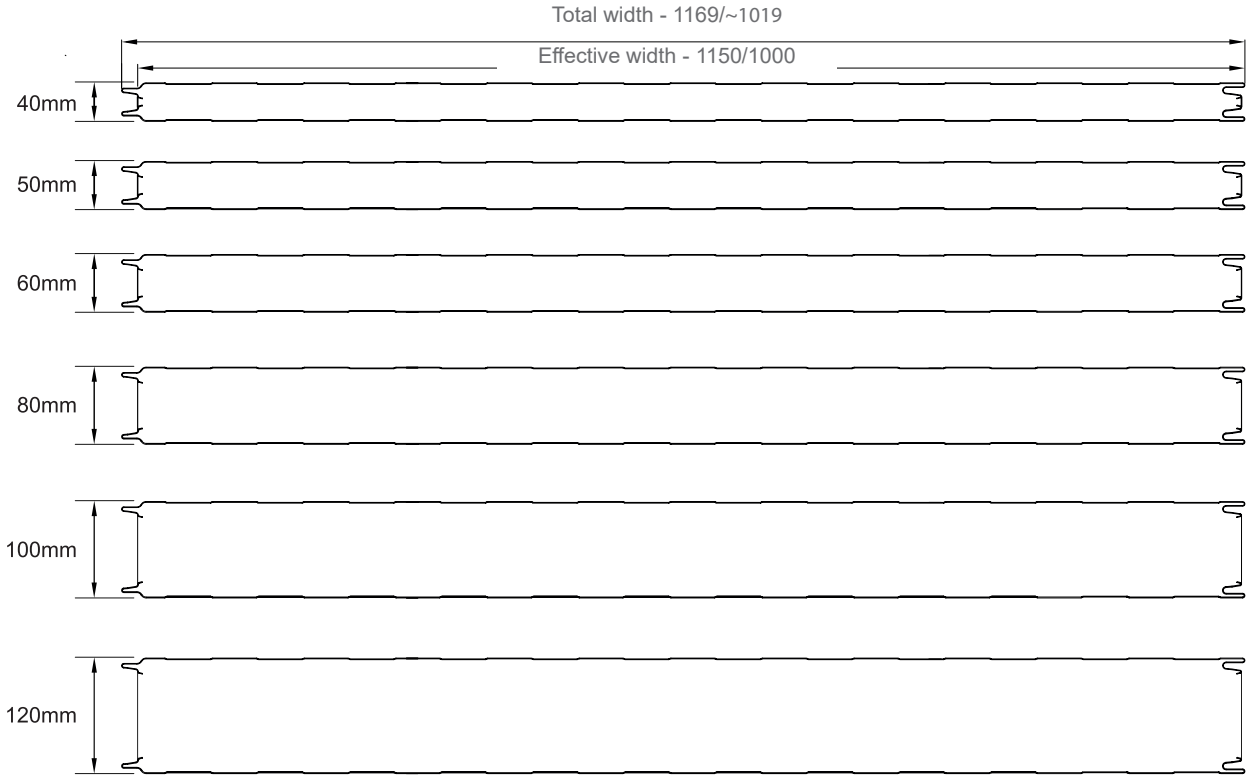
Figure 2



A-A - szczelina montażowa pomiędzy płytami

Panel thickness PWS-PIR-ST

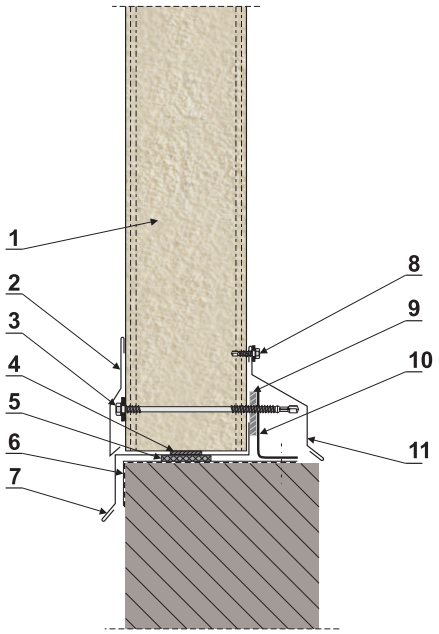
Figure 3



Support on ground beam for PWS-PIR-ST panels

VERTICAL SYSTEM

Figure 4

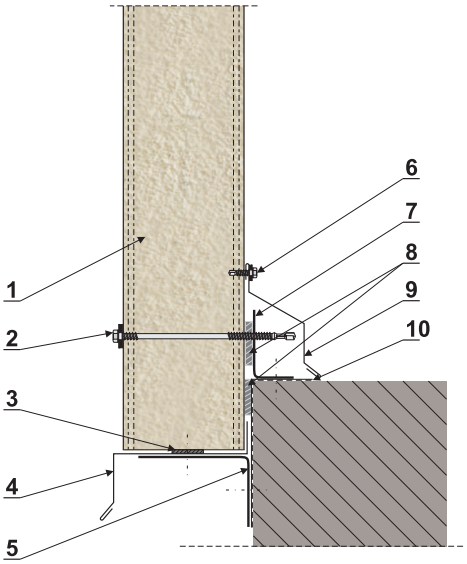


1 - panel PWS-PIR-ST
2 - cover flashing OBR-PIR-PS3
3 - mounting joint – self-drilling
4 - butyl sealing tape
5 - impregnated polyurethane seal
6 - isolation of pedestal
7 - pedestal flashing OBR-PIR-PS1
8 - self-drilling joint or one-sided rivet
9 - sealing tape
10 - construction element according to the project
11 - cover flashing OBR-PIR-PS2

Support below ground beam for PWS-PIR-ST panels

VERTICAL SYSTEM

Figure 5

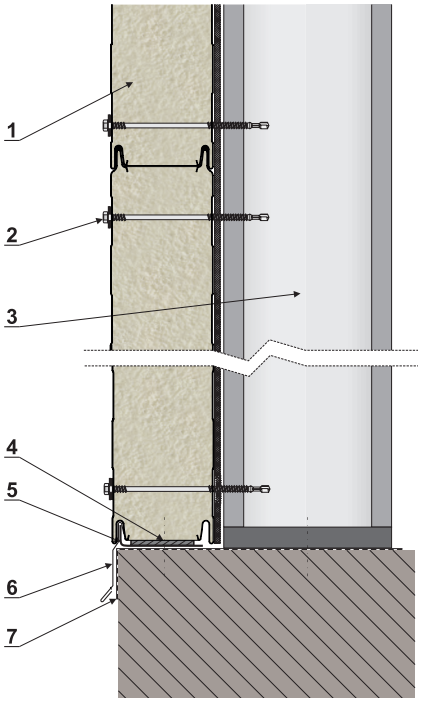


1 - panel PWS-PIR-ST
2 - mounting joint – self-drilling
3 - butyl sealing tape
4 - pedestal flashing OBR-PIR-PS1
5 - construction element according to the project
6 - self-drilling joint or one-sided rivet
7 - construction element according to the project
8 - sealing tape
9 - cover flashing OBR-PIR-PS2
10 - isolation of pedestal

Support on ground beam for PWS-PIR-ST panels

HORIZONTAL SYSTEM

Figure 6

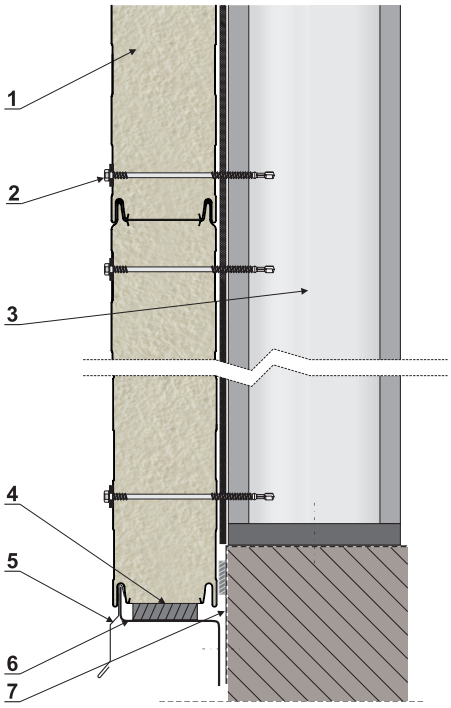


1 - panel PWS-PIR-ST
2 - mounting joint – self-drilling
3 - hall construction, pole
4 - impregnated seal or montage foam
5 - builder`s square - construction element
6 - pedestal flashing OBR-PIR-PS4
7 - isolation of pedestal

Support below ground beam for PWS-PIR-ST panels

HORIZONTAL SYSTEM

Figure 7



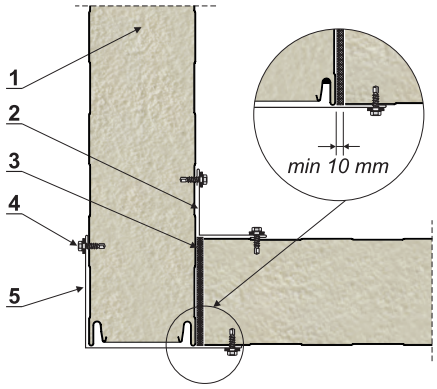
1 - panel PWS-PIR-ST
2 - mounting joint – self-drilling
3 - hall construction, pole
4 - impregnated seal or montage foam
5 - pedestal flashing OBR-PIR-PS4
6 - strut - construction element
7 - isolation of pedestal

Connection of PWS-PIR-ST panels in the corner

HORIZONTAL/VERTICAL SYSTEM

SOLUTION I

Figure 8



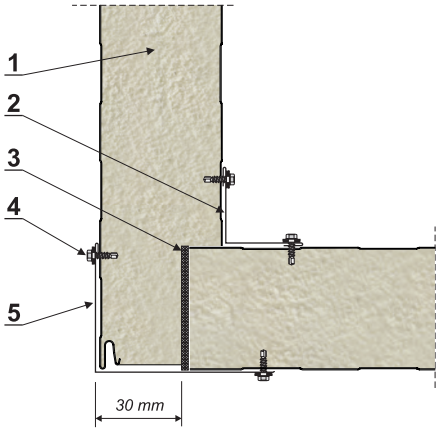
1 - panel PWS-PIR-ST
2 - corner flashing – internal OBR-PIR-PS6
3 - impregnated seal or montage foam
4 - self-drilling joint or one-sided rivet
5 - corner flashing – external OBR-PIR-PS5

Connection of PWS-PIR-ST panels in the corner

HORIZONTAL/VERTICAL SYSTEM

SOLUTION II

Figure 9



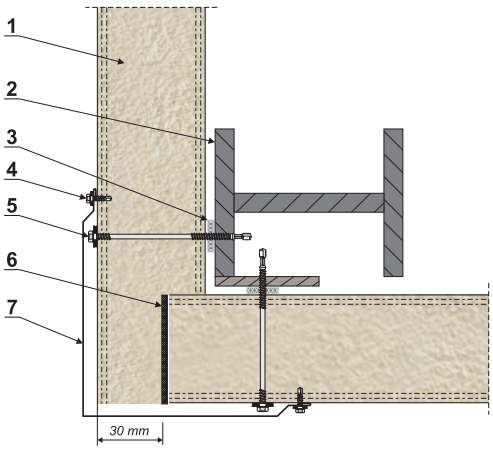
1 - panel PWS-PIR-ST
2 - corner flashing – internal OBR-PIR-PS6
3 - impregnated seal or montage foam
4 - self-drilling joint or one-sided rivet
5 - corner flashing – external OBR-PIR-PS5

Connection of PWS-PIR-ST panels in the corner

HORIZONTAL/VERTICAL SYSTEM

SOLUTION III

Figure 10



1 - panel PWS-PIR-ST
2 - hall construction, pole
3 - polyurethane seal
4 - self-drilling joint or one-sided rivet
5 - mounting joint – self-drilling
6 - impregnated seal or montage foam
7 - corner flashing – external OBR-PIR-PS7

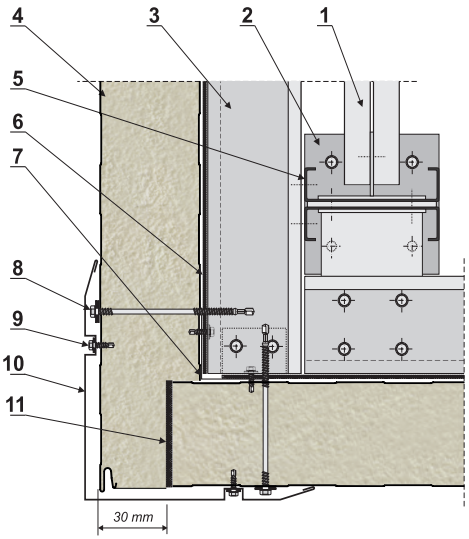
Indentation of panels allows for application of external corner flashing in one width no matter what kind of thickness will be used.

Connection of PWS-PIR-ST panels in the corner

HORIZONTAL/VERTICAL SYSTEM

SOLUTION IV

Figure 11



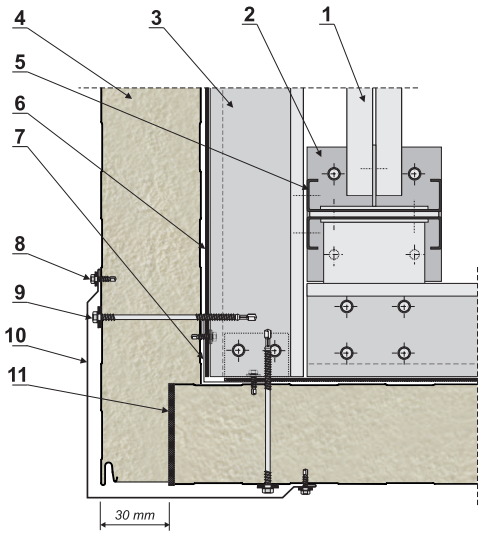
1- hall construction
2- base of pole construction
3 -bolt (e.g. profile Z)
4 -panel PWS-PIR-ST
5 pole (reversed profile C)
6- sealing tape
7- cover flashing OBR-PIR-PS6
8 -self-drilling joint
9- self-drilling joint or one-sided rivet
10- external cover flashing OBR-PIR-PS8
11- polyurethane seal or montage foam

Connection of PWS-PIR-ST panels in the corner

HORIZONTAL/VERTICAL SYSTEM

SOLUTION V

Figure 12



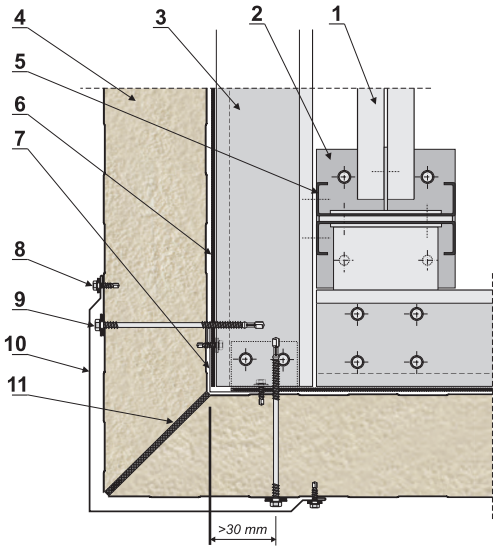
1- hall construction
2- base of pole construction
3- bolt (e.g. profile Z)
4- panel PWS-PIR-ST
5- pole (reversed profile C)
6- sealing tape
7- cover flashing OBR-PIR-PS6
8- self-drilling joint or one-sided rivet
9- self-drilling joint
10- external cover flashing OBR-PIR-PS7
11- polyurethane seal or montage foam

Connection of PWS-PIR-ST panels in the corner

HORIZONTAL/VERTICAL SYSTEM

SOLUTION VI

Figure 13

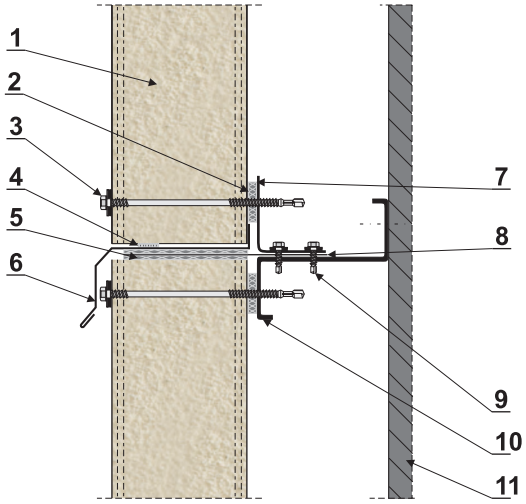


1- hall construction
2- base of pole construction
3- bolt (e.g. profile Z)
4- panel PWS-PIR-ST
5- pole (reversed profile C)
6- sealing tape
7- cover flashing OBR-PIR-PS6
8- self-drilling joint or one-sided rivet
9- self-drilling joint
10- external cover flashing OBR-PIR-PS7
11- polyurethane seal or montage foam

Connection of PWS-PIR-ST panels in length

VERTICAL SYSTEM

Figure 14

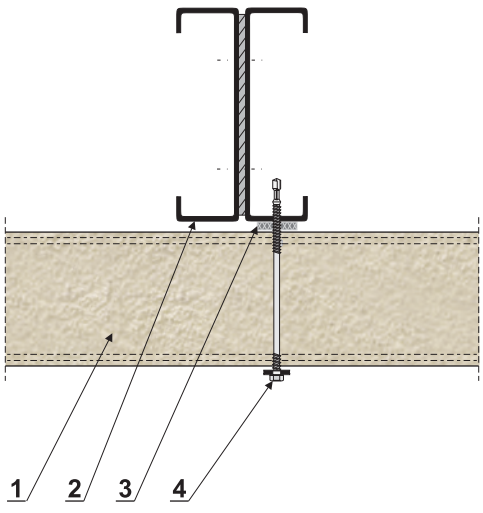


1 - panel PWS-PIR-ST
2 - polyurethane seal
3 - self-drilling mounting joint
4 - butyl sealing tape
5 - polyurethane seal or montage foam
6 - flashing of drip cup OBR-PIR-PS9
7 - contruction element
8 - setting flat bar
9 - self-drilling joint
10 - construction element – bolt
11 - construction element – pole

Mounting panels PWS-PIR-ST to the pole – middle support

HORIZONTAL SYSTEM

Figure 15

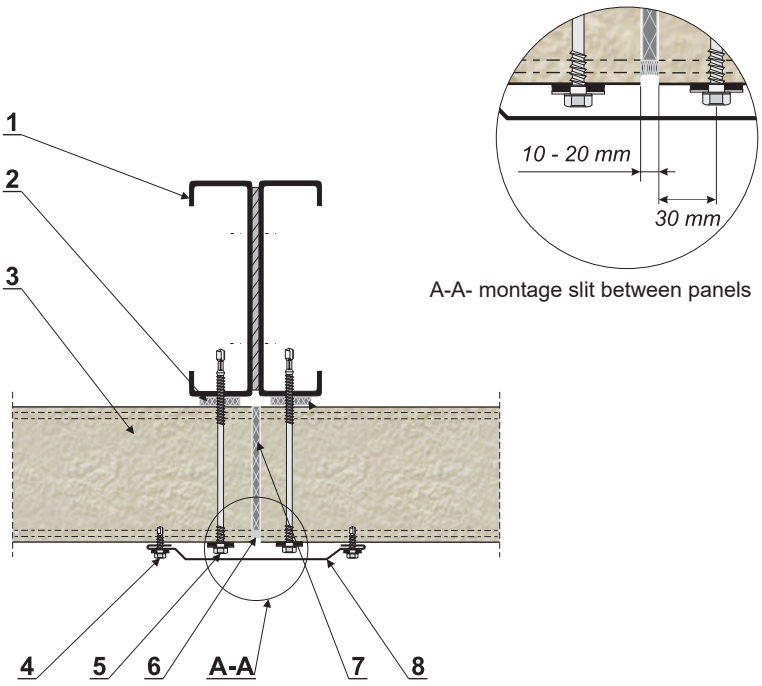


1 - panel PWS-PIR-ST
2 - construction element – pole
Width of support min. 60 mm
3 - polyurethane seal
4 - mounting joint – self-drilling

Mounting panels PWS-PIR-ST to the pole – edge support

HORIZONTAL SYSTEM
SOLUTION I

Figure 16

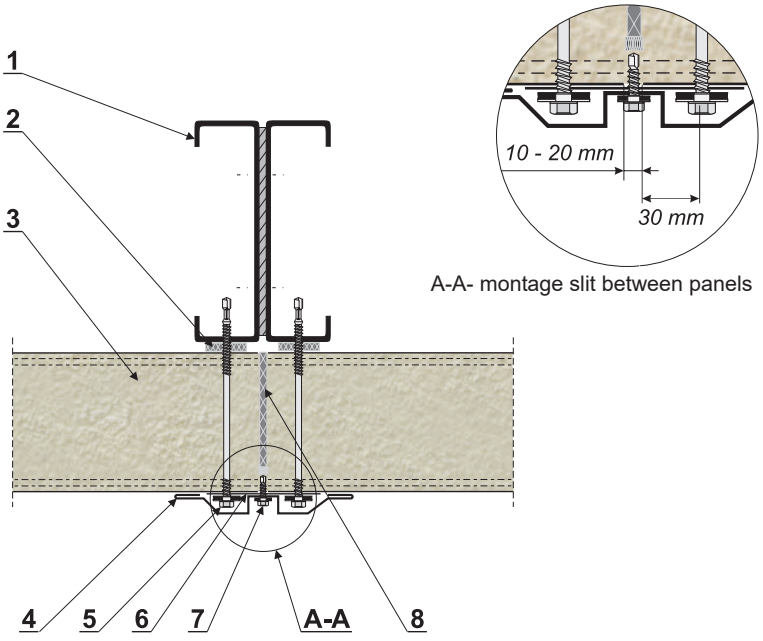


1 - construction element – pole
2 - polyurethane seal
3 - panel PWS-PIR-ST
4 - self-drilling joint or one-sided rivet
5 - self-drilling mounting joint
6 - expansion seal – silicone
7 - impregnated polyurethane seal or montage foam
8 - cover flashing OBR-PIR-PS10
9 - polyurethane seal

Mounting panels PWS-PIR-ST to the pole – edge support

HORIZONTAL SYSTEM
SOLUTION II

Figure 17



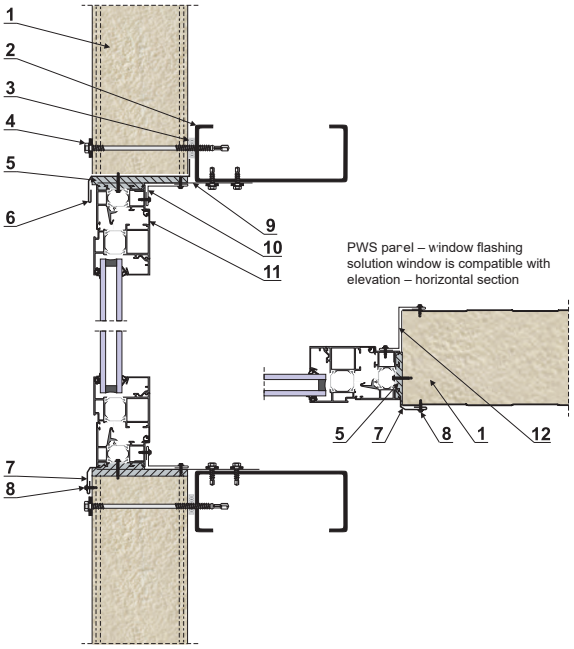
1 - construction element – pole
2 - polyurethane seal
3 - panel PWS-PIR-ST
4 - cover flashing OBR-PIR-PS11
5 - mounting joint – self-drilling
6 - expansion seal – silicone
7 - self-drilling joint
8 - impregnated polyurethane seal or montage foam

Mounting panels PWS-PIR-ST with the window

VERTICAL SYSTEM

SOLUTION I

Figure 18



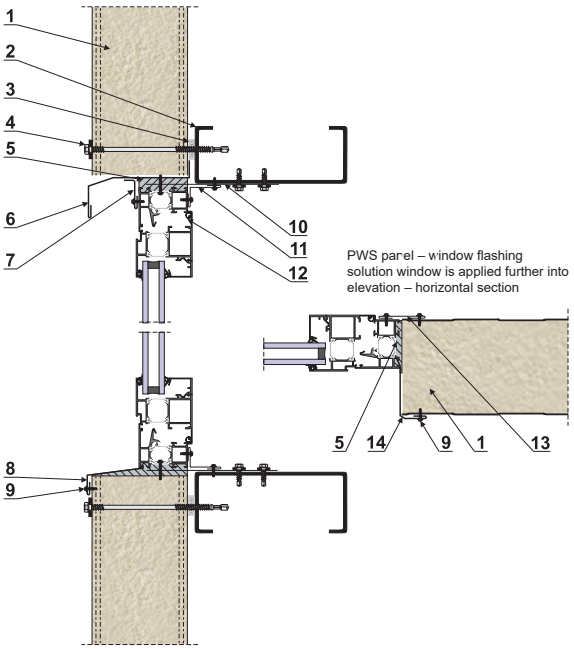
1 - panel PWS-PIR-ST
2 - construction element
3 - polyurethane seal
4 - self-drilling mounting joint
5 - montage foam
6 - drip cup flashing (individual)
7 - flashing (mounted in foam) OBR-PIR-PS13
8 - self-drilling joint or one-sided rivet
9 - setting flat bar
10 - flashing – builder`s square
11 - window frame
12 - individual flashing

Mounting panels PWS-PIR-ST with the window

VERTICAL SYSTEM

SOLUTION II

Figure 19



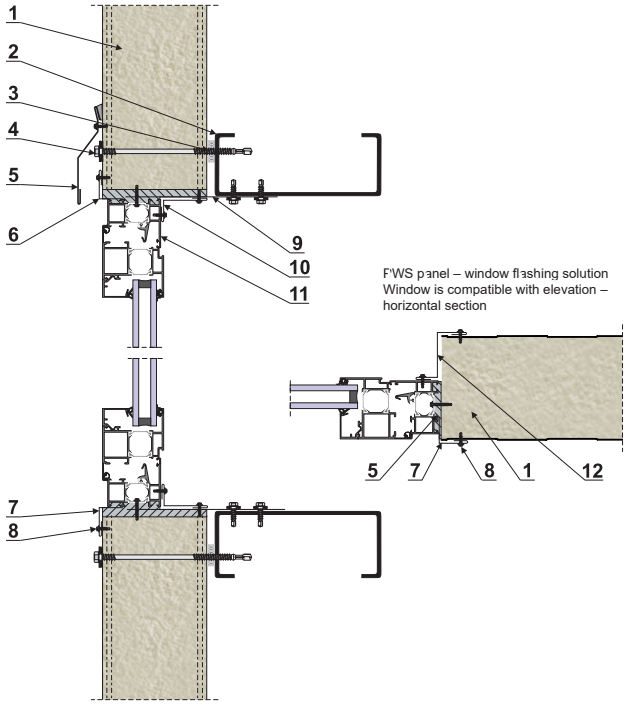
1 - panel PWS-PIR-ST
2 - construction element
3 - polyurethane seal
4 - self-drilling mounting joint
5 - montage foam
6 - drip cup flashing OBR-PIR-PS16
7 - individual flashing OBR-PIR-PS17
8- flashing OBR-PIR-PS15
9- self-drilling joint or one-sided rivet
10 -setting flat bar
11- flashing – builder`s square
12- window frame
13- individual flashing

Mounting panels PWS-PIR-ST with the window

HORIZONTAL/VERTICAL SYSTEM

SOLUTION III

Figure 20

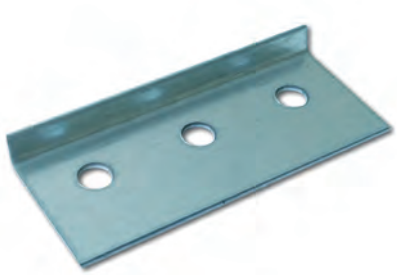


1 - panel PWS-PIR-ST
2 - construction element
3 - polyurethane seal
4 - self-drilling mounting joint
5 - drip cup flashing OBR-PIR-PS14
6,7 - individual flashing (mounted in foam)
8 - self-drilling joint or one-sided rivet
9 - setting flat bar
10 - flashing – builder`s square
11 - window frame
12 - individual flashing

Connection of PWS-PIR-PL panels joint

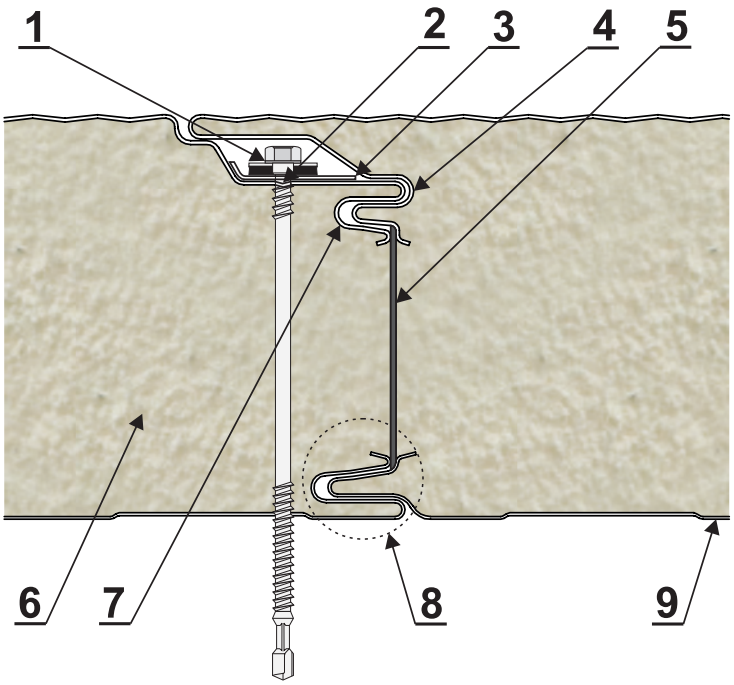
Panels with hidden joints are dedicated to construction designs, where one of criteria is esthetical appearance of the façade. Wide colour choice and its advantages allow to realization of construction design placed in every urban plan. There is possibility to merge different architectural styles in cities and countries. Panel with hidden joint may be used on the facades of residential buildings, hotels, commercial buildings, train stations and other public buildings. It allows architects to realize the most modern construction designs.

Strain Distributor



Strain Distributor is a necessary element during assembly of sandwich panels with hidden joint PIRTECH PLUS. Its exclusion decreases lifting capacity about 30%.
Strain Distributor has three slots that will help with placing the joints in regard of construction. It was established to use two joints on each element.

Figure 1



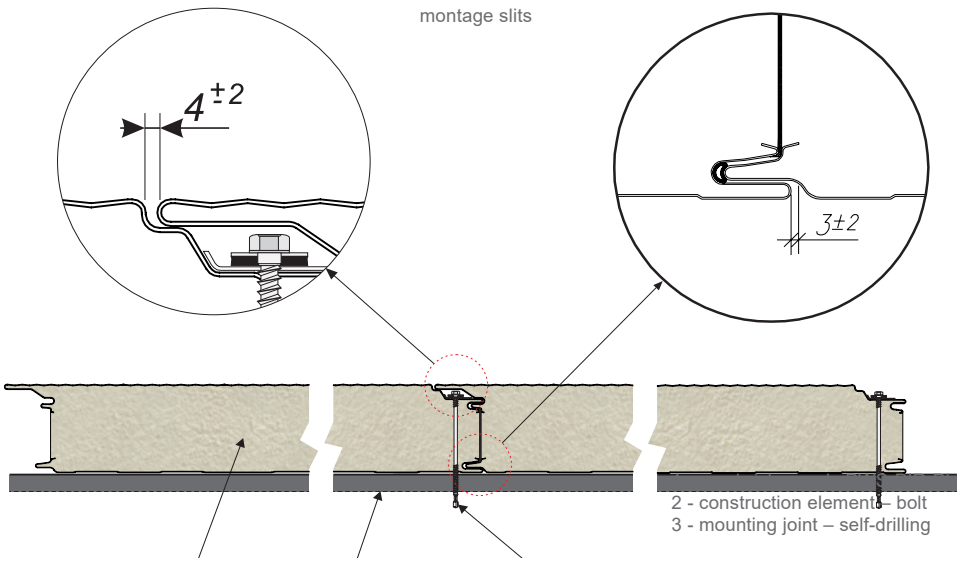
1 - hidden under specially designed element of external facing mounting joints of panel`s load-bearing construction – this allows elevation to maintain aesthetic look
2 - channel that allows precise positioning of mounting joints, which leads to faster and proper mounting of panels and lower risk of mechanical damage of coatings
3 - steel profile under mounting joints, so called strain distributor
4 - facings' bending radius has been optimally designed and prevent protective coatings from damages
5 - continous polyurethane seal and aluminum film given during production, protects from infiltration of water vapour and sustains high thermal insulation
6 - rigid foam PIR core, harmless for natural environment, very low coefficient of heat transmission
7 - longitudinal joint has unique geometry by application of so-called triple joint feather-mortise that expanded fire tightness and thermal insulation
8 - conical shape and optimal choice of longitudinal slope contact surface angle, allow quick and precise assembly
9 - variety of external and internal facings profiling, provide aesthetic look of panels

Connecting PWS-PIR-PL panels

Joint

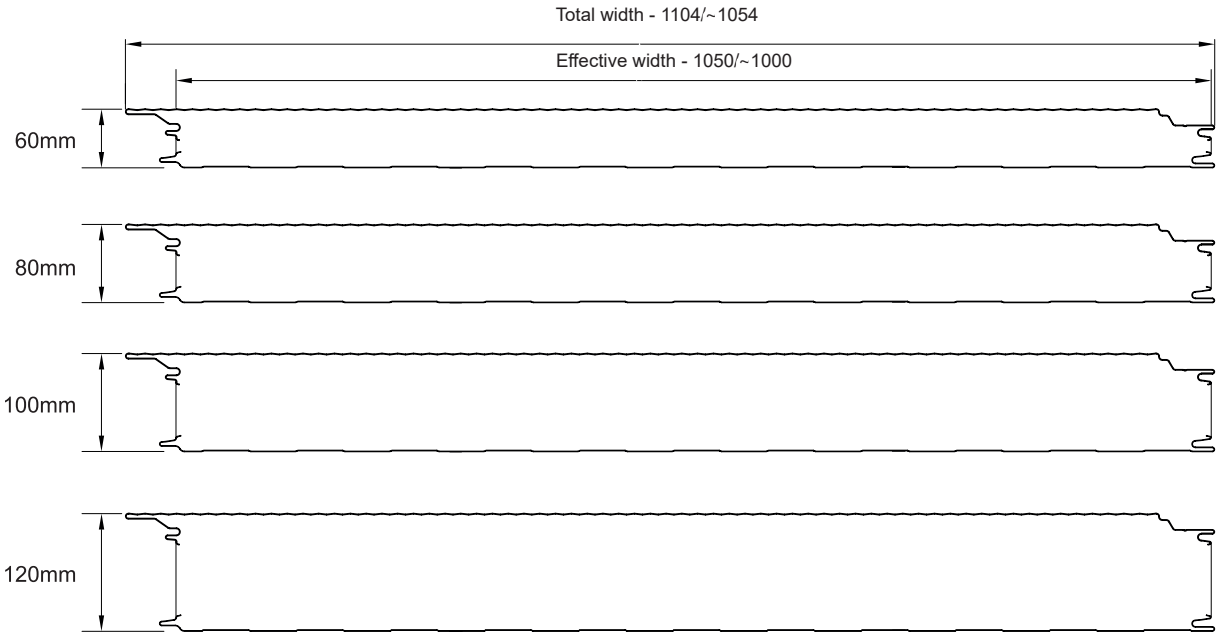
VERTICAL SYSTEM

Figure 2



Panel thickness PWS-PIR-PL

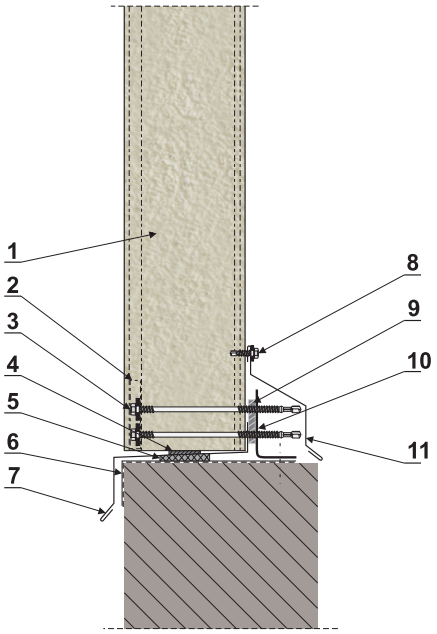
Figure 3



Support on ground beam for PWS-PIR-PL panels

VERTICAL SYSTEM

Figure 4

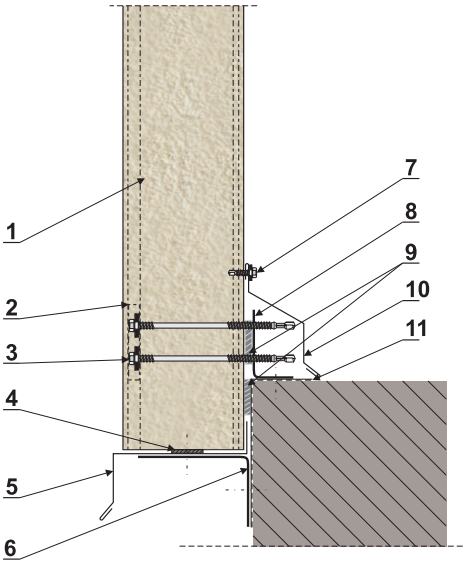


1- panel PWS-PIR-PL
2- strain distributor
3- mounting joint – self-drilling
4- butyl sealing tape
5- impregnated polyurethane seal
6- isolation of pedestal
7- pedestal flashing OBR-PIR-PS1
8- self-drilling joint or one-sided rivet
9- sealing tape
10- construction element according to the project
11- cover flashing OBR-PIR-PS2

Support below ground beam for PWS-PIR-PL panels

VERTICAL SYSTEM

Figure 5

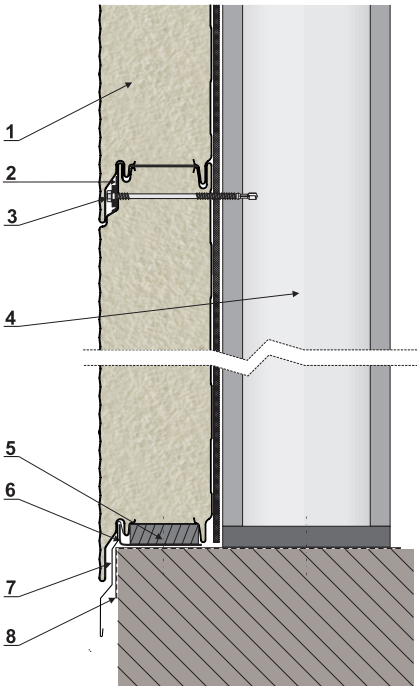


1 - panel PWS-PIR-PL
2 - strain distributor
3 - mounting joint – self-drilling
4 - butyl sealing tape
5 - pedestal flashing OBR-PIR-PS1
6 - construction element according to the project
7 - self-drilling joint or one-sided rivet
8 - construction element according to the project
9 - sealing tape
10 - cover flashing OBR-PIR-PS2
11 - isolation of pedestal

Support on ground beam for PWS-PIR-PL panels

HORIZONTAL SYSTEM

Figure 6

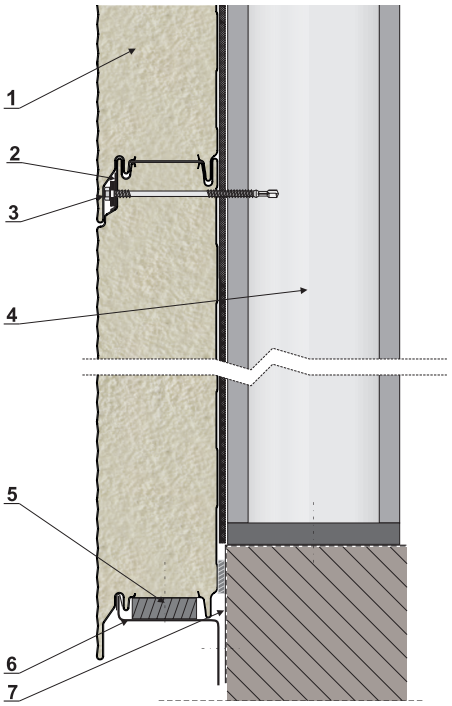


1 - panel PWS-PIR-PL
2 - strain distributor
3 - mounting joint – self-drilling
4 - hall construction
5 - impregnated seal or montage foam
6 - builder`s square - construction element
7 - individual flashing
8 - isolation of pedestal

Support below ground beam for PWS-PIR-ST panels

HORIZONTAL SYSTEM

Figure 7



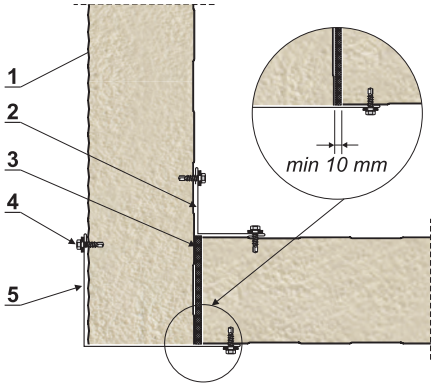
1- panel PWS-PIR-PL
2- strain distributor
3- mounting joint – self-drilling
4- hall construction, pole
5- impregnated seal or montage foam
6- strut - construction element
7- isolation of pedestal

Connection of PWS-PIR-PL panels in the corner

HORIZONTAL/VERTICAL SYSTEM

SOLUTION I

Figure 8



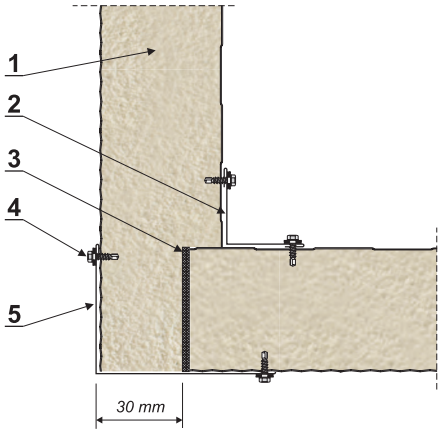
1- panel PWS-PIR-PL
2- corner flashing – internal OBR-PIR-PS6
3- impregnated seal or montage foam
4- self-drilling joint or one-sided rivet
5- corner flashing – external OBR-PIR-PS5

Connection of PWS-PIR-PL panels in the corner

HORIZONTAL/VERTICAL SYSTEM

SOLUTION III

Figure 9



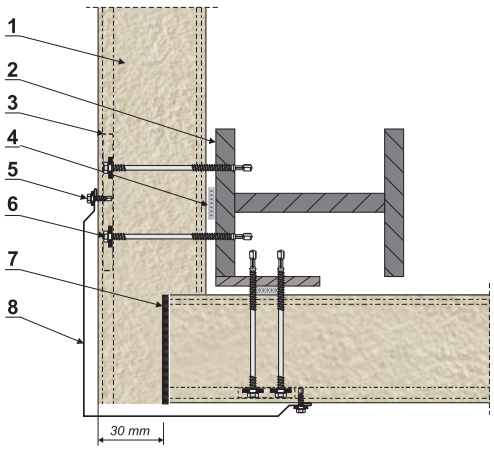
1- panel PWS-PIR-PL
2- corner flashing – internal OBR-PIR-PS6
3- impregnated seal or montage foam
4- self-drilling joint or one-sided rivet
5- corner flashing – external OBR-PIR-PS5

Connection of PWS-PIR-PL panels in the corner

HORIZONTAL/VERTICAL SYSTEM

SOLUTION III

Figure 10



1- panel PWS-PIR-PL
2- hall construction
3-strain distributor
4- polyurethane seal
5- self-drilling joint or one-sided rivet
6- mounting joint – self-drilling
7- impregnated seal or montage foam
8- corner flashing – external OBR-PIR-PS7

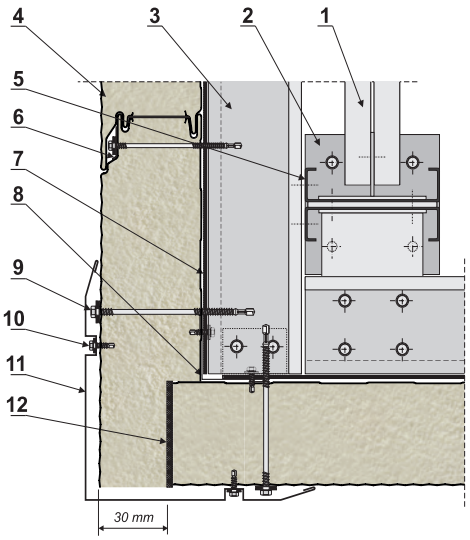
Indentation of panels allows for application of external corner flashing in one width no matter what kind of thickness will be used.

Connection of PWS-PIR-PL panels in the corner

VERTICAL SYSTEM

SOLUTION IV

Figure 11



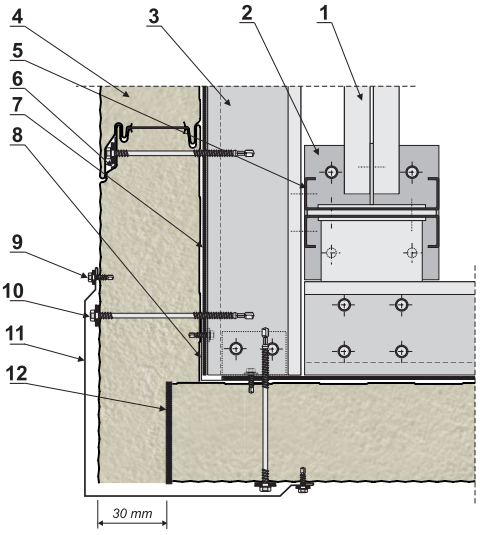
1- hall construction
2- base of pole construction
3- bolt (e.g. profile Z)
4- panel PWS-PIR-PL
5- pole (reversed profile C)
6- strain distributor
7- sealing tape
8- cover flashing - internal
9- self-drilling joint
10- self-drilling joint or one-sided rivet
11- external cover flashing OBR-PIR-PS8
12- polyurethane seal or montage foam

Connection of PWS-PIR-ST panels in the corner

VERTICAL SYSTEM

SOLUTION V

Figure 12



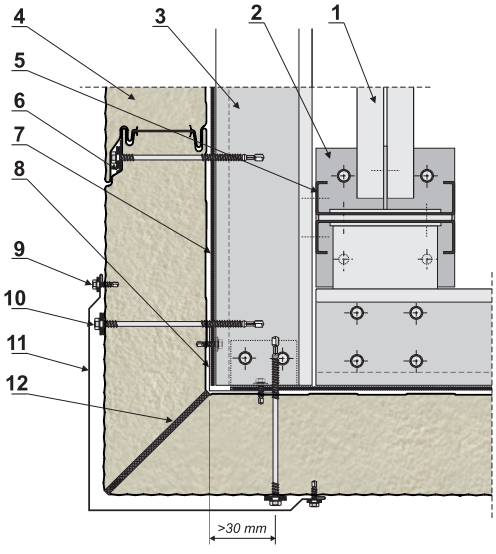
1 -hall construction
2- base of pole construction
3- bolt (e.g. profile Z)
4 -panel PWS-PIR-PL
5- pole (reversed profile C)
6- strain distributor
7- sealing tape
8- cover flashing - internal
9- self-drilling joint or one-sided rivet
10- self-drilling joint
11- external cover flashing OBR-PIR-PS7
12 -polyurethane seal or montage foam

Connection of PWS-PIR-PL panels in the corner

VERTICAL SYSTEM

SOLUTION VI

Figure 13

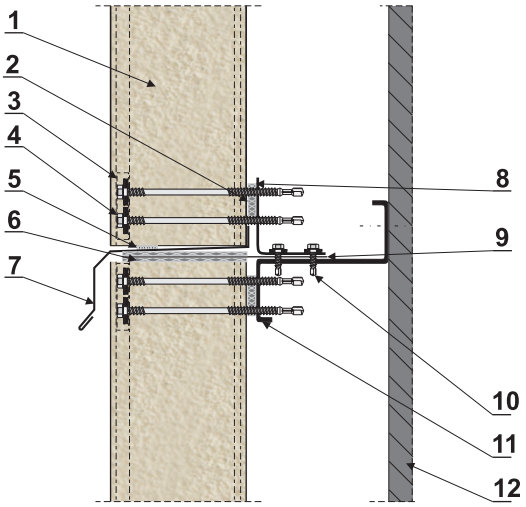


1- hall construction
2- base of pole construction
3 -bolt (e.g. profile Z)
4- panel PWS-PIR-PL
5- pole (reversed profile C)
6- strain distributor
7- sealing tape
8- cover flashing - internal
9- self-drilling joint or one-sided rivet
10- self-drilling joint
11- external cover flashing OBR-PIR-PS7
12- polyurethane seal or montage foam

Connection of PWS-PIR-PL panels in length

VERTICAL SYSTEM

Figure 14

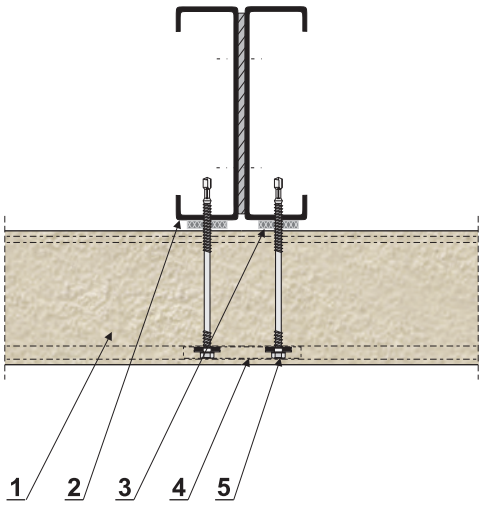


1- panel PWS-PIR-PL
2- polyurethane seal
3- strain distributor
4- self-drilling mounting joint
5- butyl sealing tape
6- polyurethane seal or montage foam
7- flashing of drip cup OBR-PIR-PS9
8- contruction element
9- setting flat bar
10- self-drilling joint
11- construction element – bolt
12- construction element – pole

Mounting panels PWS-PIR-PL to the pole – middle support

HORIZONTAL SYSTEM

Figure 15

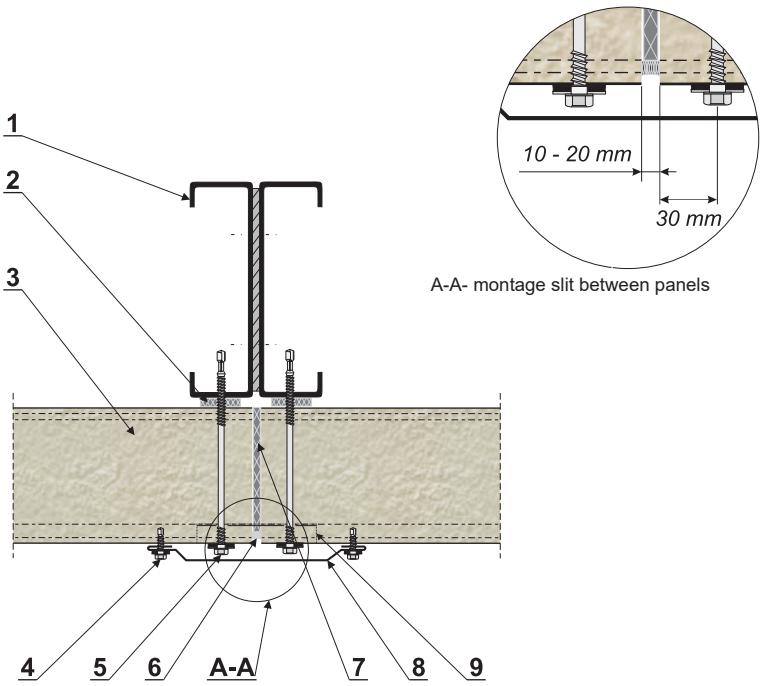


1- panel PWS-PIR-PL
2- construction element – pole
Width of support min. 60 mm
3- polyurethane seal
4- strain distributor
5- mounting joint – self-drilling

Mounting panels PWS-PIR-PL to the pole – edge support

HORIZONTAL SYSTEM
SOLUTION I

Figure 16

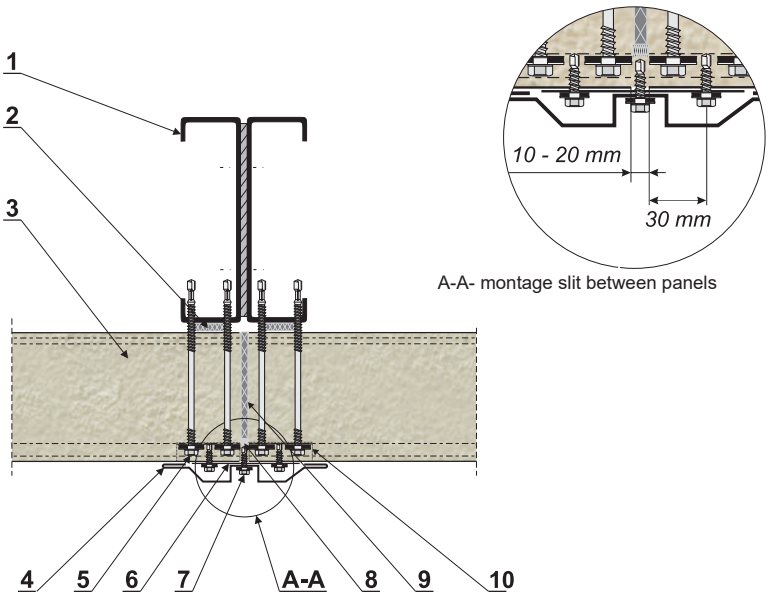


1- construction element – pole
2- polyurethane seal
3- panel PWS-PIR-PL
4- self-drilling joint or one-sided rivet
5- self-drilling mounting joint
6- expansion seal – silicone
7- impregnated polyurethane seal or montage foam
8- cover flashing OBR-PIR-PS10
9- strain distributor

Mounting panels PWS-PIR-PL to the pole – edge support

HORIZONTAL SYSTEM
SOLUTION II

Figure 17



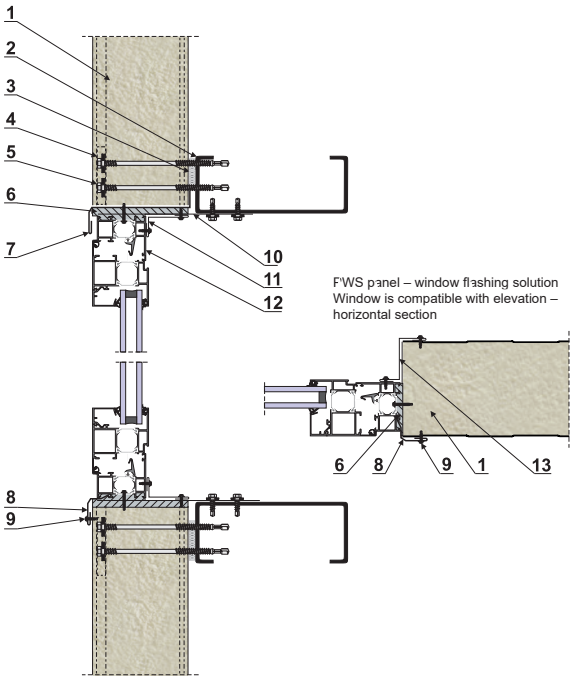
1- construction element – pole
2- polyurethane seal
3- panel PWS-PIR-PL
4- cover flashing OBR-PIR-PS11
5- mounting joint – self-drilling
6- steel flat bar
7- self-drilling joint or one-sided rivet
8- expansion seal – silicone
9- impregnated polyurethane seal or montage foam
10- strain distributor

Mounting panels PWS-PIR-PL with the window

VERTICAL SYSTEM

SOLUTION I

Figure 18



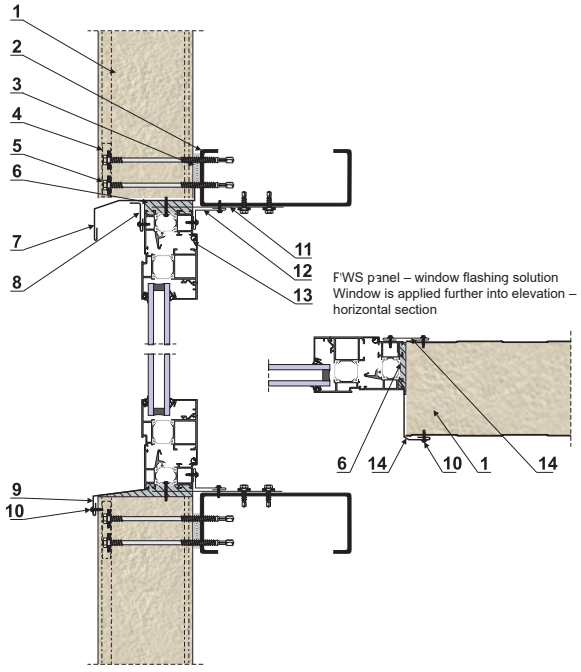
1- panel PWS-PIR-PL
2- construction element
3- polyurethane seal
4- strain distributor
5- self-drilling mounting joint
6- montage foam
7- drip cup flashing (individual)
8- flashing (mounted in foam) OBR-PIR-PS13
9- self-drilling joint or one-sided rivet
10- setting flat bar
11- flashing – builder`s square
12- window frame
13- individual flashing

Mounting panels PWS-PIR-P with the window

VERTICAL SYSTEM

SOLUTION II

Figure 19

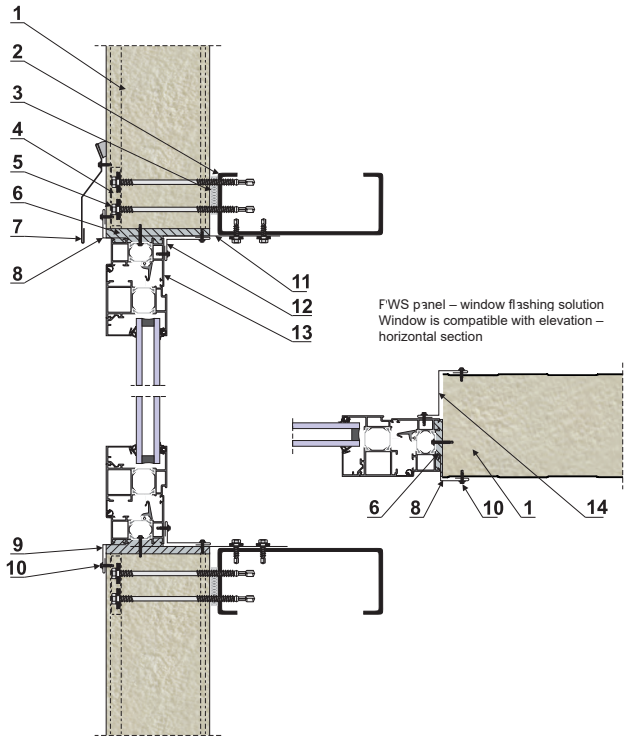


1- panel PWS-PIR-PL
2- construction element
3- polyurethane seal
4- strain distributor
5- self-drilling mounting joint
6- montage foam
7- drip cup flashing OBR-PIR-PS16
8- flashing OBR-PIR-PS17
9- flashing OBR-PIR-PS15
10- self-drilling joint or one-sided rivet
11- setting flat bar
12- flashing – builder`s square
13- window frame
14- individual flashing

Mounting panels PWS-PIR-PL with the window

HORIZONTAL/VERTICAL SYSTEM
SOLUTION III

Figure 20



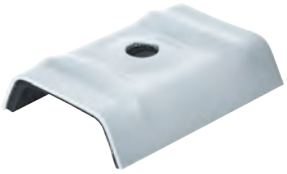
1 - panel PWS-PIR-PL
2 - construction element
3 - polyurethane seal
4 - strain distributor
5 - self-drilling mounting joint
6 - montage foam
7 - drip cup flashing OBR-PIR-PS14
8,9 - individual flashing (mounted in foam)
10 - self-drilling joint or one-sided rivet
11 - setting flat bar
12 - flashing – builder`s square
13 - window frame
14 - individual flashing

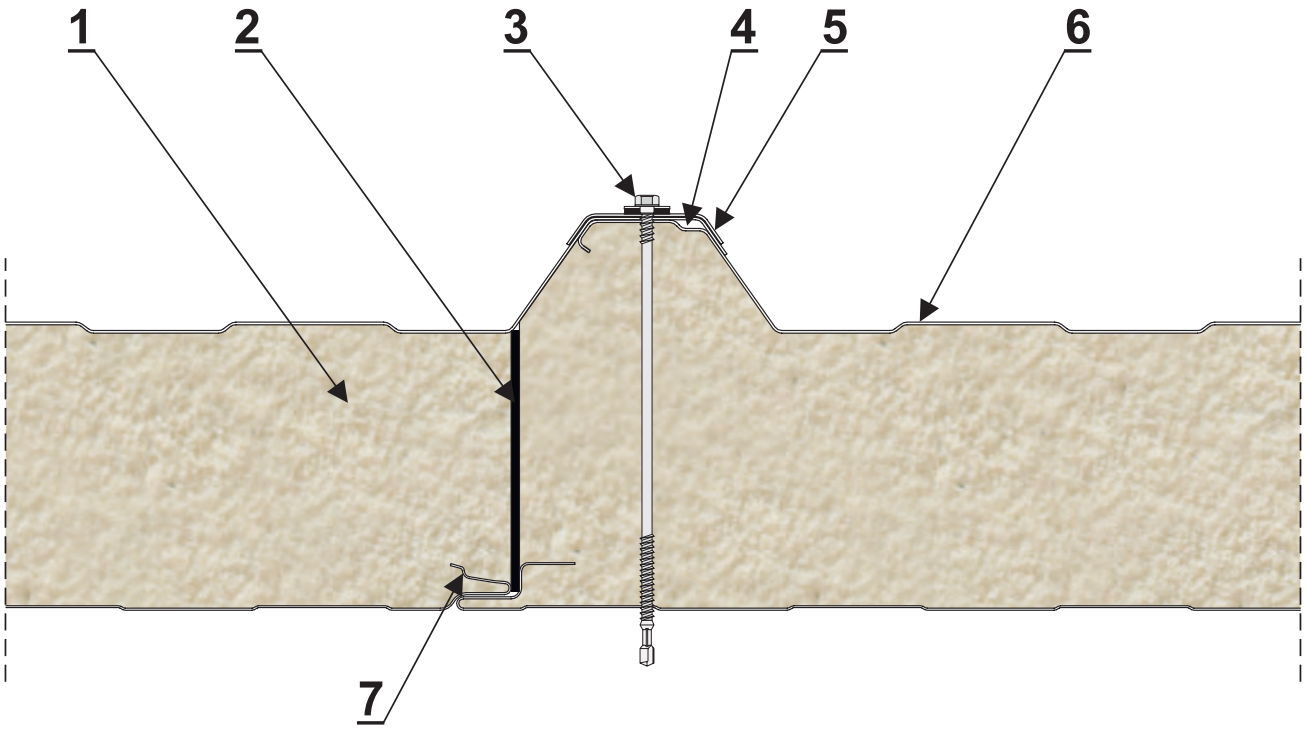
Mounting panels PWD-PIR
Joint lock

Universal roof panel is dedicated for roof coverages of different type and different tilt angle in buildings for different applications.

Figure 1

callotte



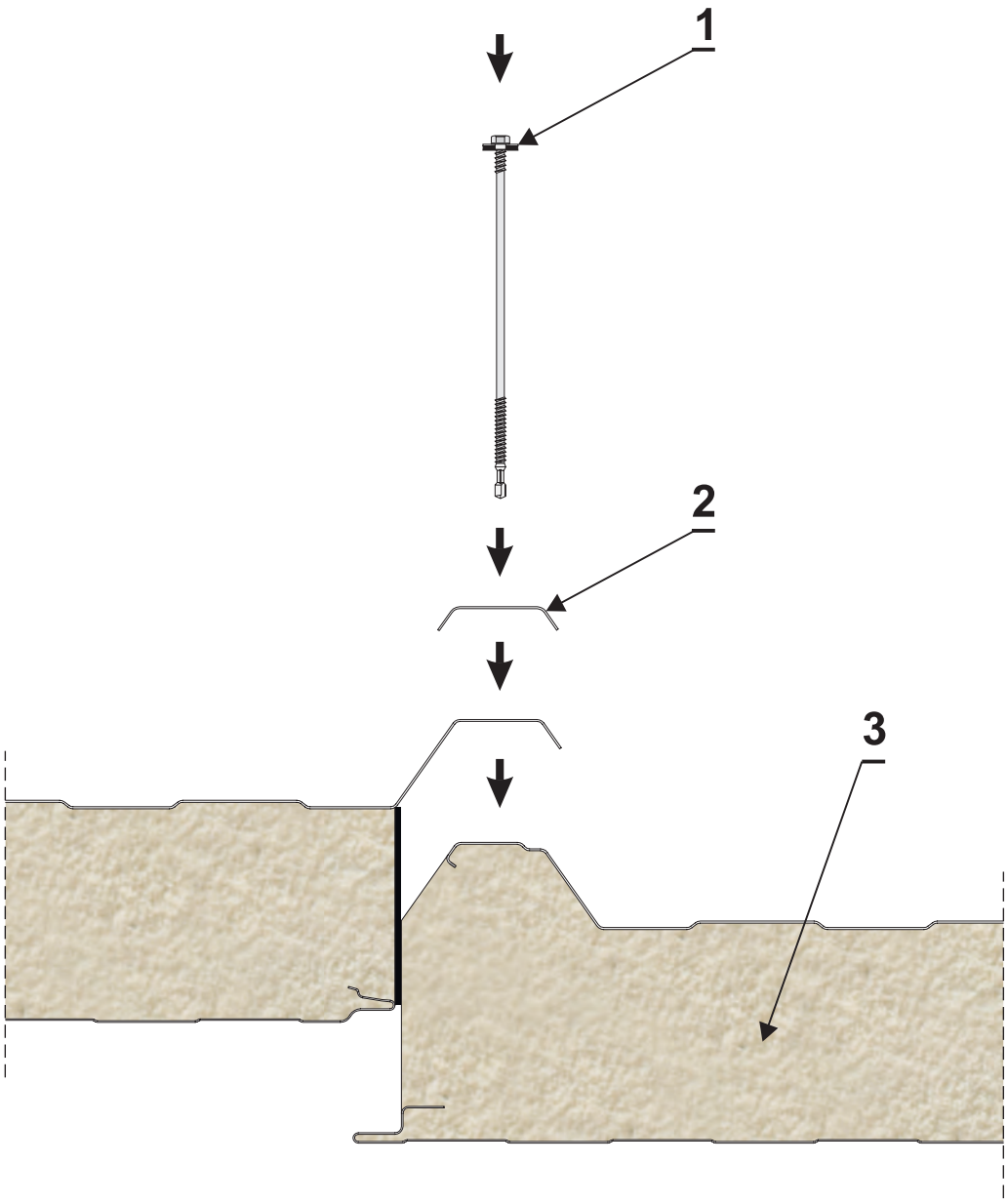


1 - rigid foam PIR core, harmless for natural environment, very low coefficient of heat transmission
2 - continuous polyurethane seal and aluminum film given during production, protects from infiltration of water vapour and sustains high thermal insulation
3 - joint mounting panels to load-bearing construction
4 - specially designed chamber used for draining condensate
5 - callotte
6 - external facing of high trapeze that expand lifting capacity and stiffness of the roof panel.
7 - facings' bending radius has been optimally designed and prevent protective coatings from damages

Mounting panels PWD-PIR
Joint lock

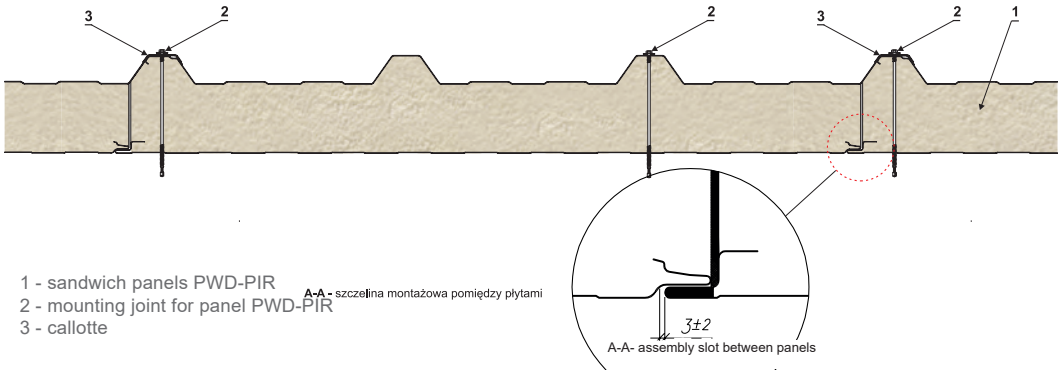
The panel should be putted on the previous one, in the way showed in figure 2. The connection is made by calotte washer and mounting fastener.

Figure 2



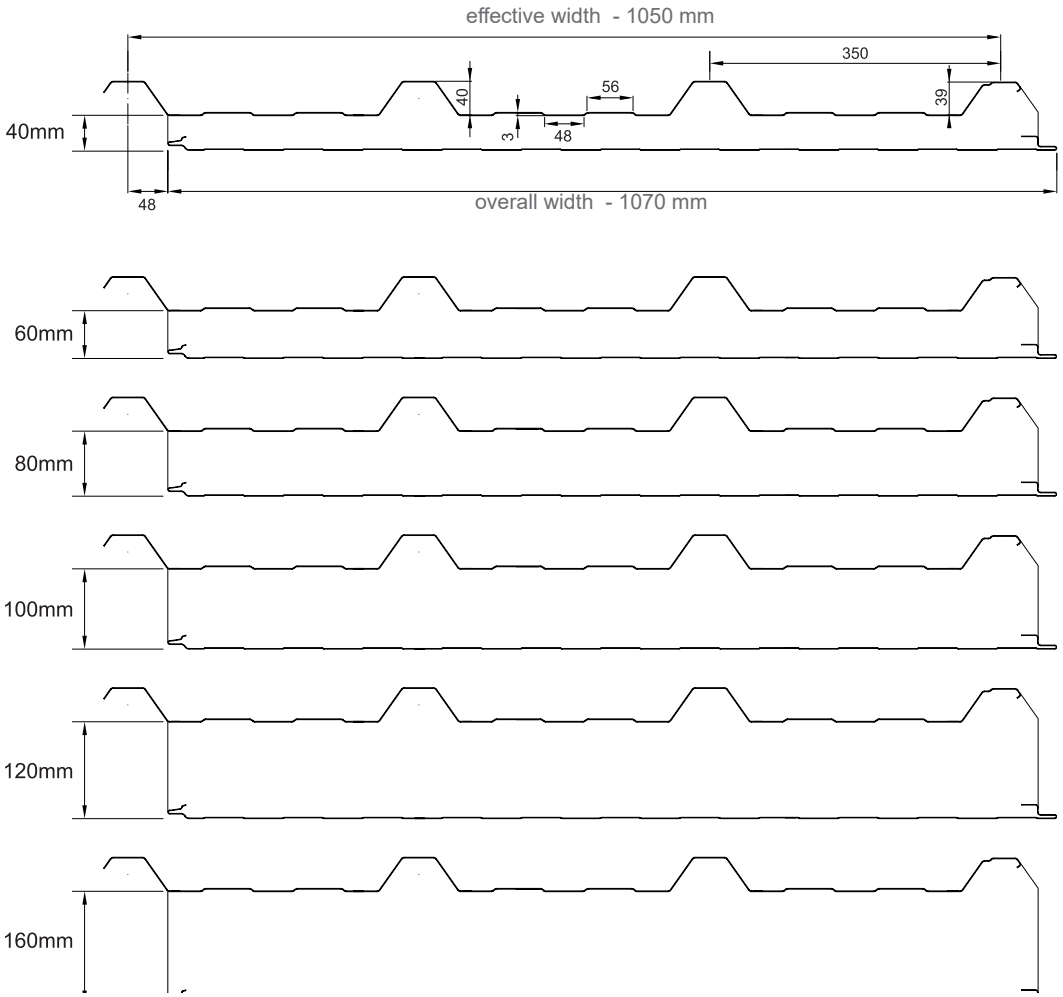
1 - Self-driling screw to fasten panels to construction
2 - callotte
3 - PWD-PIR roof panel

Figure 3 Panel is connected by three joints on width. It is important to take under consideration correct mounting of middle joint and correct sealing the place of joining.



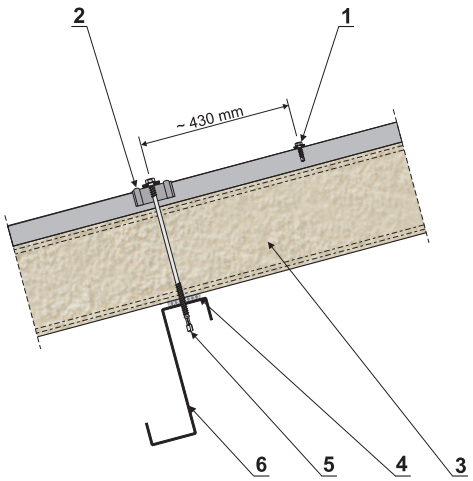
Panel thickness PWD-PIR

Figure 4



Mounting panels PWD-PIR to steel purlin

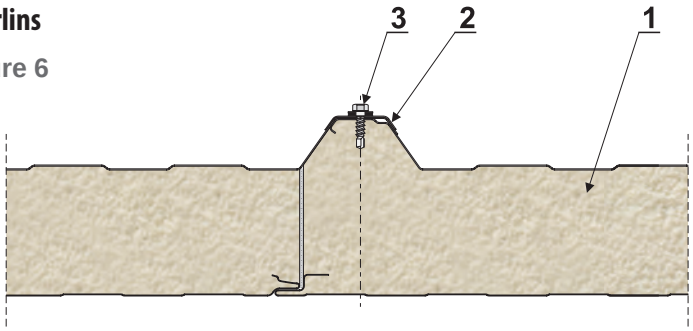
Figure 5



1 - mounting joint – self-drilling
2 - callotte
3 - panel PWD-PIR
4 - sealing tape
5 - mounting joint for panel PWD-PIR
6 - construction element

Mounting panels PWD-PIR between purlins

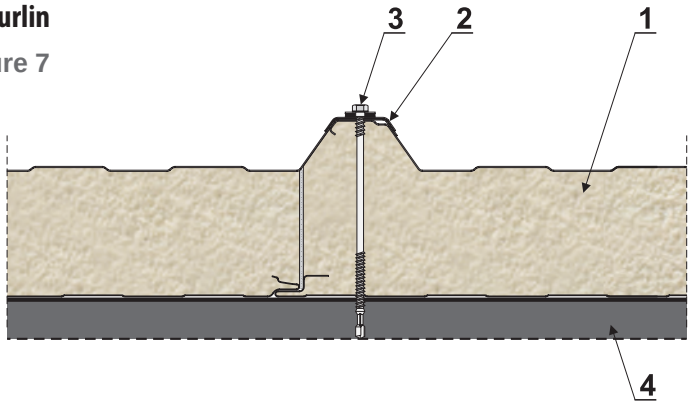
Figure 6



1 - roof panel PWD-PIR
2 - callotte
3 - mounting joint – self-drilling

Mounting panels PWD-PIR to steel purlin

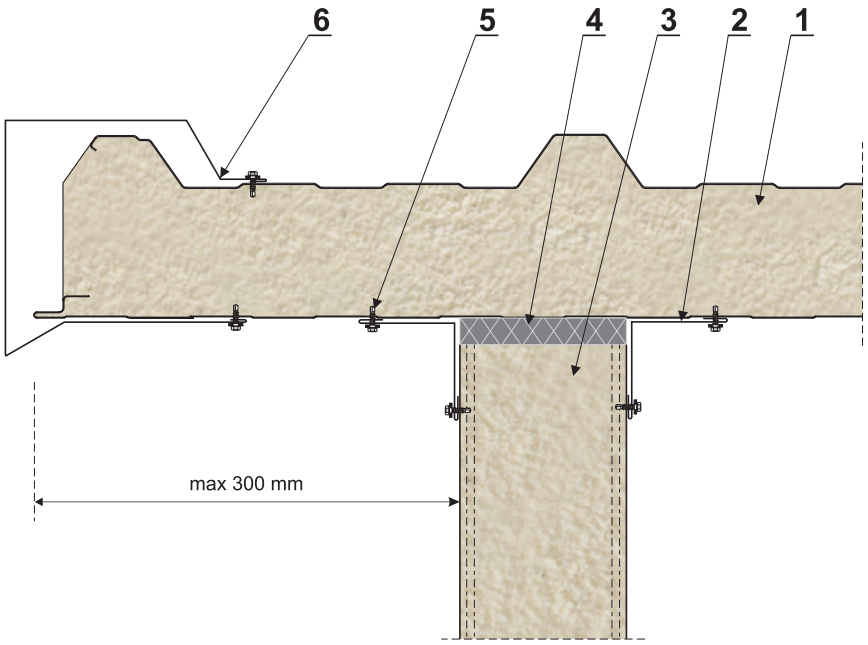
Figure 7



1 - roof panel PWD-PIR
2 - callotte
3 - mounting joint for panel PWD-PIR
4 - construction element

Edge of the top of the roof and connecting roof panel with wall panel

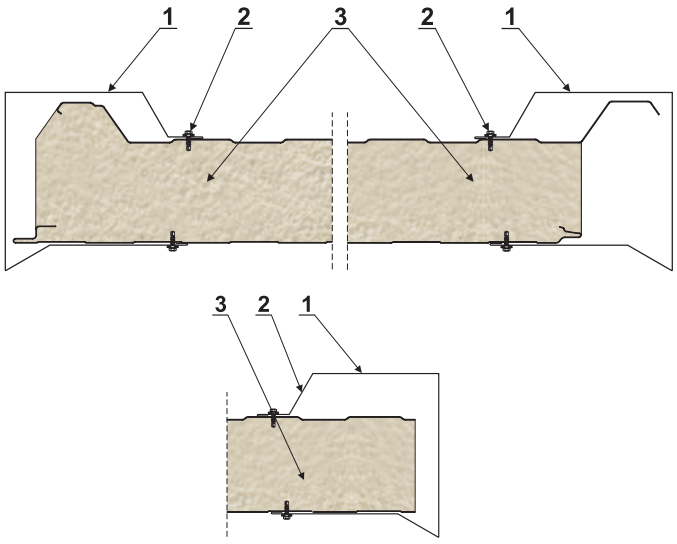
Figure 8



1 - roof panel PWD-PIR
2 - internal/external flashing OBR-PIR-PD7
3 - wall panel PWS-PIR-ST/PL
4 - montage foam
5 - self-drilling joint or one-sided rivet
6 - side flashing/smoke deflector OBR-PIR-PD6

Edge of the top of the roof PWD-PIR

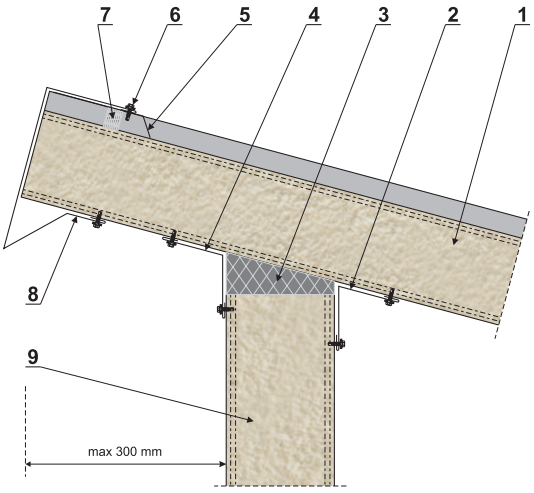
Figure 9



1 - side flashing/smoke deflector OBR-PIR-PD6
2 - self-drilling joint or one-sided rivet
3 - roof panel PWD-PIR

Edge of the top of the roof for pent roof
Solution II

Figure 10

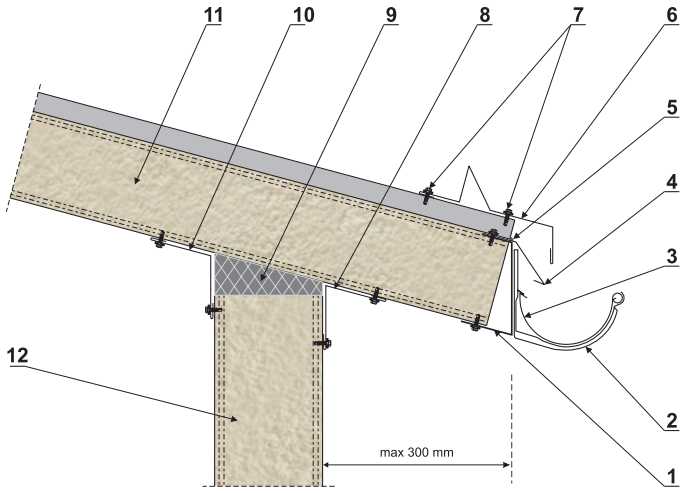


1 - roof panel PWD-PIR
2 - internal flashing OBR-PIR-PD9
3 - montage foam
4 - external flashing OBR-PIR-PD8
5 - closing flashing OBR-PIR-PD4
6 - self-drilling joint or one-sided rivet
7 - sealing tape
8 - side flashing/smoke deflector OBR-PIR-PD6
9 - wall panel PWS-PIR-ST/PL

Roof panel PWD-PIR may be placed outside of the building wall contour maximum 300 mm.

Edge of the top of the roof for pent roof Mounting the gutter Solution I

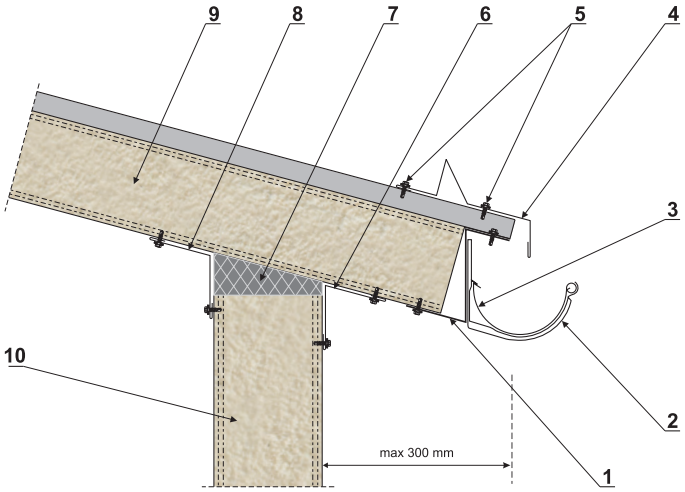
Figure 11



1 - closing flashing OBR-PIR-PD12
2 - front-end gutter hook
3 - gutter
4 - gutter flashing OBR-PIR-PD10
5 - sealing material, butyl
6 - snow barrier OBR-PIR-PD11
7 - self-drilling joint
8 - external flashing OBR-PIR-PD9
9 - sealing foam
10 - internal flashing OBR-PIR-PD8
11 - roof panel PWD-PIR
12 - wall panel PWS-PIR-ST/PL

Edge of the top of the roof for pent roof Mounting the gutter Solution II

Figure 12

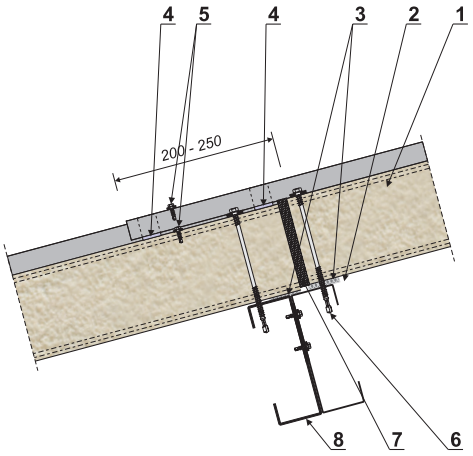


1 - closing flashing OBR-PIR-PD13
2 - front-end gutter hook
3 - gutter
4 - snow barrier OBR-PIR-PD11
5 - self-drilling joint
6 - external flashing OBR-PIR-PD9
7 - sealing foam
8 - internal flashing OBR-PIR-PD8
9 - roof panel PWD-PIR
10 - wall panel PWS-PIR-ST/PL

Connecting roof panels PWD-PIR on the length

Figure 13

1 - roof panel PWD-PIR
2 - construction element
3 - sealing tape
4 - butyl sealing tape
5 - self-drilling joint
6 - joint for mounting panels PWD-PIR
7 - montage foam
8 - construction element



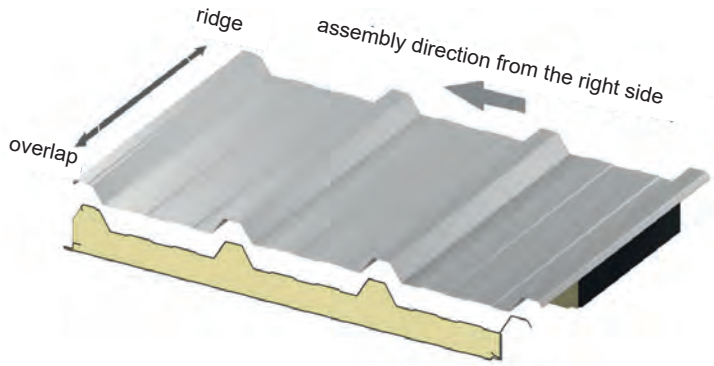
Connecting roof panels PWD-PIR on the length

While connecting roof panels on the length it is necessary to create an undercut of the top panel.
PIRTECH roof panels may be produced with an undercut between 50 to 300 mm.
Its required to choose the type of undercut, which is determined by the direction of the montage:

- RIGHT undercut –assembly from the right side (fig.14)
- LEFT undercut - assembly from the left side (fig.15)

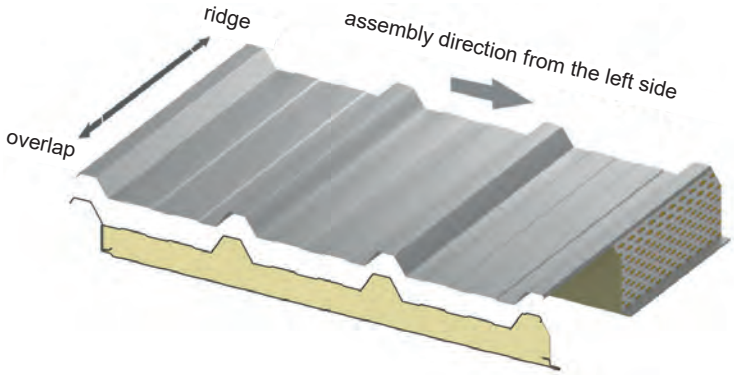
RIGHT UNDERCUT

Figure 14



LEFT UNDERCUT

Figure 15



Undercut length may be: D = 50, 100, 150, 200 ,250 and max 300 mm.
Permissible difference of undercut length is ± 3 mm

ATTANTION: Total panel length includes chosen length of an undercut regardless of its size. For example, 6000 mm panel with 200 mm undercut (5800 mm core + 200 mm sheet).

The Blachy Pruszyński company makes two types of overlapping cuts:

- full overlap cut, i.e. incision of the inner sheet, tape on the outer-trapezoidal lining, undercut of the foam along the entire thickness of the panel core,
- incomplete overlap cut, i.e. cutting of the inner sheet, undercut of the foam along the entire thickness of the panel's core.

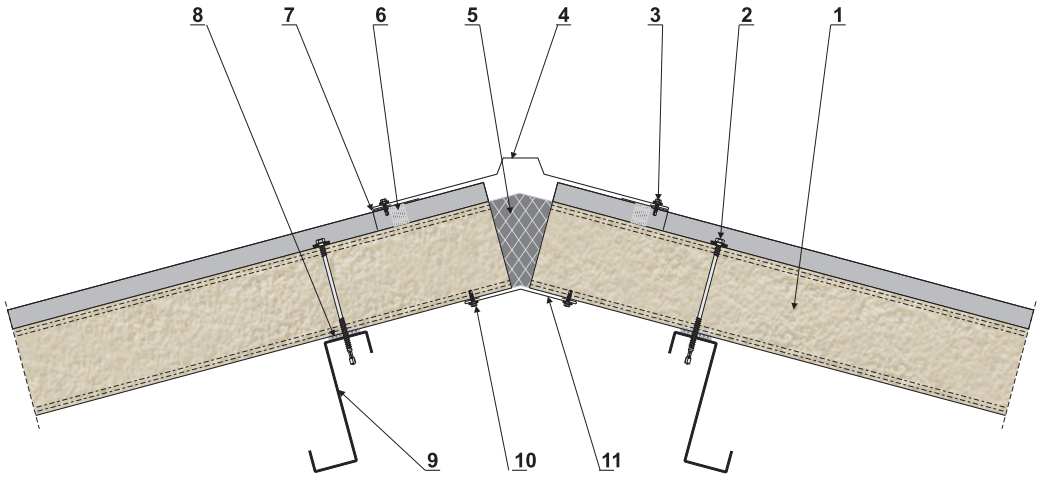
Individual widths of the undercut (only in the range from 50 to 300 mm) are possible, but without the tape on the outer - trapezoidal lining with the foam undercut along the entire thickness of the panel core.

For PWD-PIR boards 40, 60, 80, 100, 120 min. the length of the boards with full undercut is 5,000 mm. Panels with lengths less than 5,000 mm can be made only without tape on the outer - trapezoidal cladding.

For PWD-PIR panels 160 min. the minimum length of boards with full undercut is 4,000 mm. The PWD-PIR 160 panel with a length of less than 4,000 mm can be made only without tape on the outer - trapezoidal facing.

Connecting roof panels PWD-PIR in the ridge
Solution I

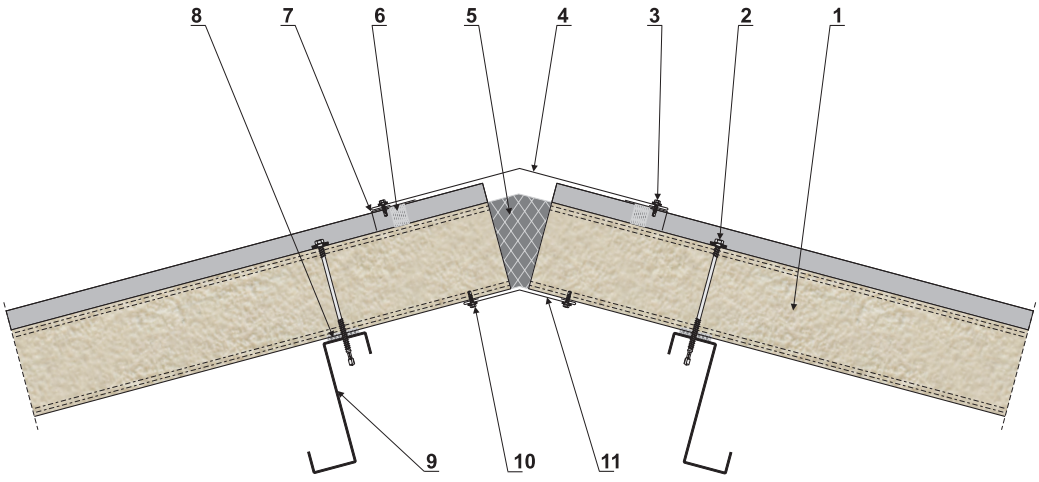
Figure 16



1 - roof panel PWD-PIR
2 - joint for mounting panels PWD-PIR
3 - self-drilling joint
4 - ridge flashing OBR-PIR-PD3
5 - isolating material or sealing foam
6 - butyl sealing tape
7 - intermediate flashing – covering OBR-PIR-PD4
8 - sealing tape
9 - construction element
10 - self-drilling joint or rivet
11 - covering internal flashing OBR-PIR-PD2

Connecting roof panels PWD-PIR in the ridge
Solution II

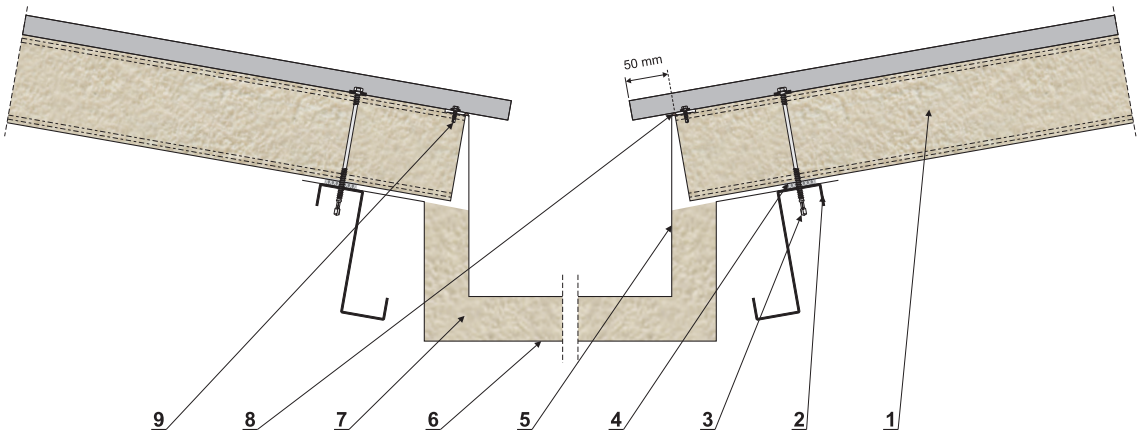
Figure 17



1 - roof panel PWD-PIR
2 - joint for mounting panels PWD-PIR
3 - self-drilling joint
4 - simple ridge flashing OBR-PIR-PD3
5 - isolating material or sealing foam
6 - butyl sealing tape
7 - intermediate flashing – covering OBR-PIR-PD4
8 - sealing tape
9 - construction element
10 - self-drilling joint or rivet
11 - covering internal flashing OBR-PIR-PD2

Gutter in roofline
PWD-PIR
Solution I

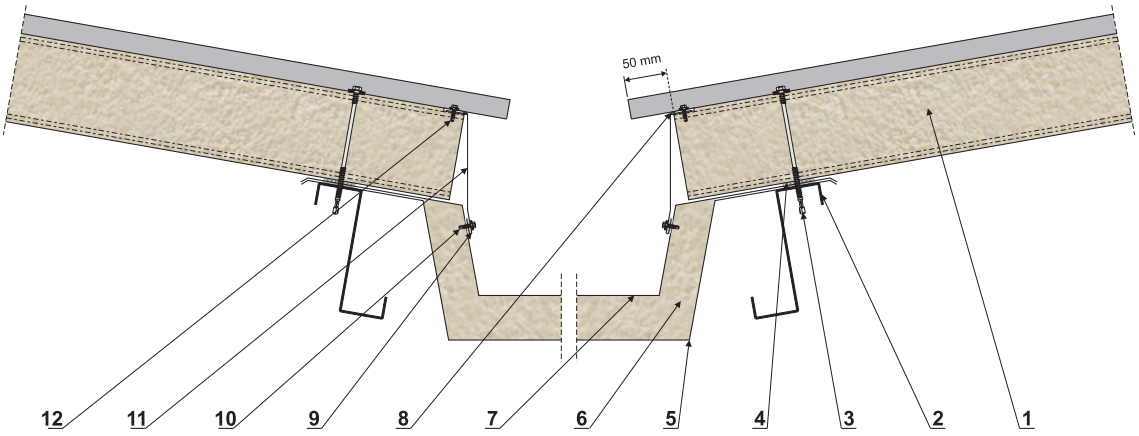
Figure 18



1 - roof panel PWD-PIR
2 - construction element
3 - joint for mounting panels PWD-PIR
4 - sealing tape
5 - external gutter flashing
6 - internal gutter flashing
7 - isolating material or sealing foam
8 - seal or butyl
9 - self-drilling joint

Gutter in roofline
PWD-PIR
Solution II

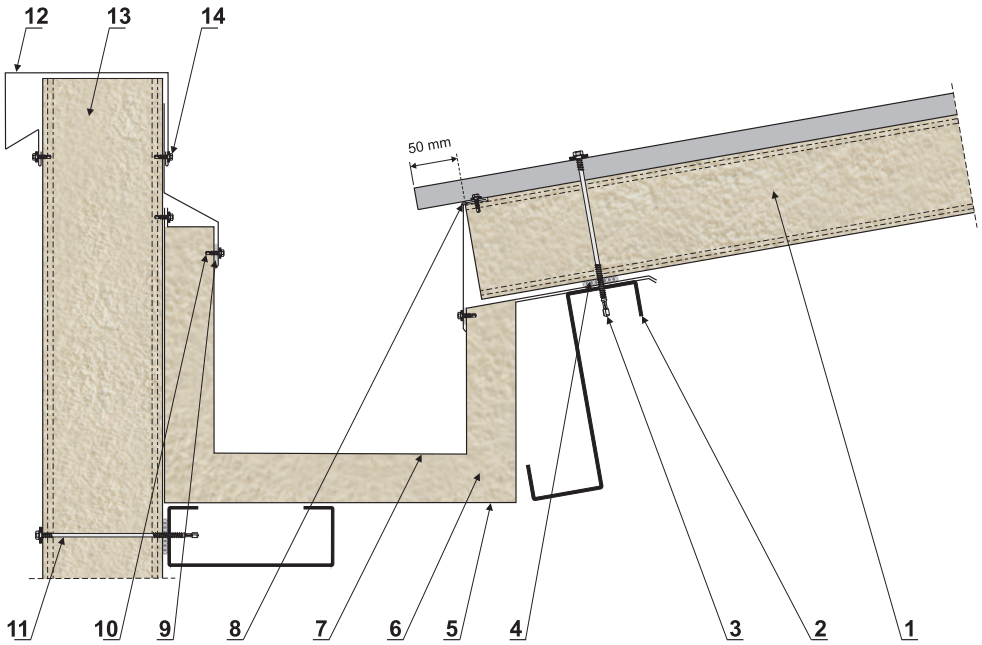
Figure 19



1 - roof panel PWD-PIR
2 - construction element
3 - joint for mounting panels PWD-PIR
4 - sealing tape
5 - internal individual gutter flashing
6 - isolating material or sealing foam
7 - external individual gutter flashing
8 - seal or butyl
9 - sealing butyl tape
10 - self-drilling joint
11 - individual covering flashing
12 - self-drilling joint

Gutter next to attic PWD-PIR Solution I

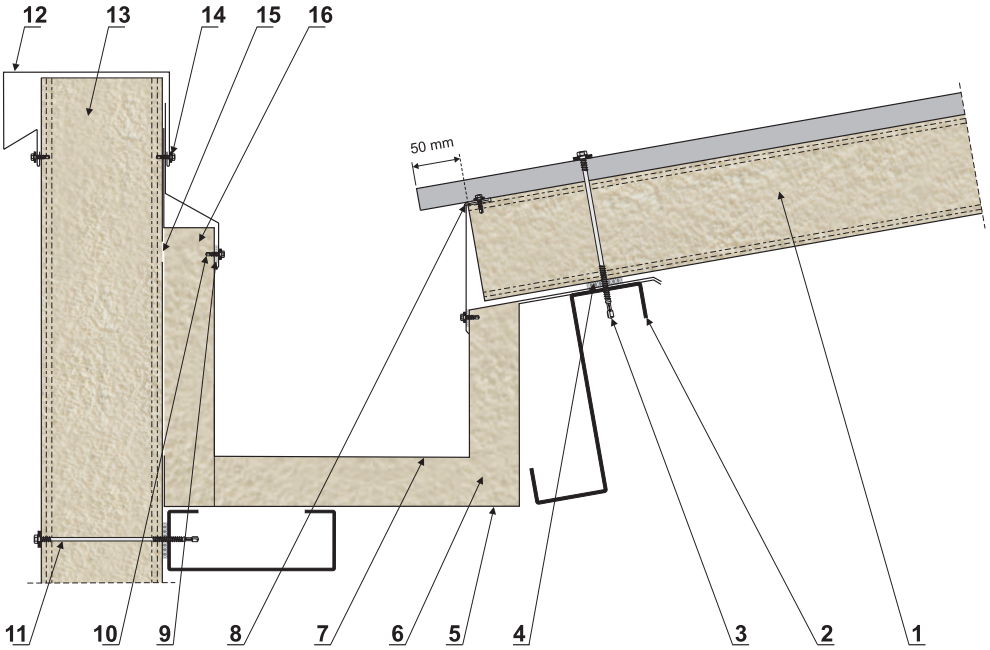
Figure 20



1 - roof panel PWD-PIR
2 - construction element
3 - joint for mounting panels PWD-PIR
4 - sealing tape
5 - external individual gutter flashing
6 - isolating material or sealing foam
7 - internal individual gutter flashing
8 - seal or butyl
9 - sealing butyl tape
10 - self-drilling joint
11 - mounting joint for panels PWS-PIR-ST/PL
12 - flashing OBR-PS12 or individual
13 - wall panel PWS-PIR-ST/PL
14 - self-drilling joint

Gutter next to attic PWD-PIR Solution II

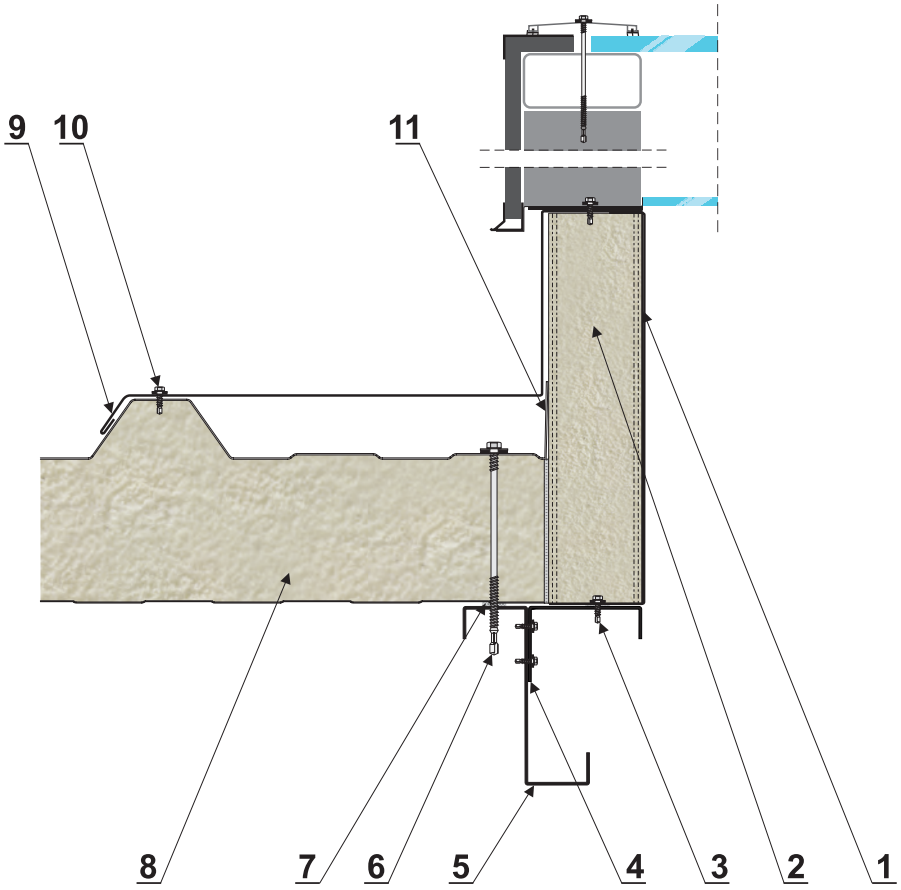
Figure 21



1 - roof panel PWD-PIR
2 - construction element
3 - joint for mounting panels PWD-PIR
4 - sealing tape
5 - external individual gutter flashing
6 - isolating material or sealing foam
7 - internal individual gutter flashing
8 - seal or butyl
9 - sealing butyl tape
10 - self-drilling joint
11 - mounting joint for panels PWS-PIR-ST/PL
12 - flashing OBR-PS12 or individual
13 - wall panel PWS-PIR-ST/PL
14 - self-drilling joint
15 - cracked facing on width 10 mm (recommended for improving thermal isolation)
16 - isolation panel

Skylight next to ridge side flashings PWD-PIR

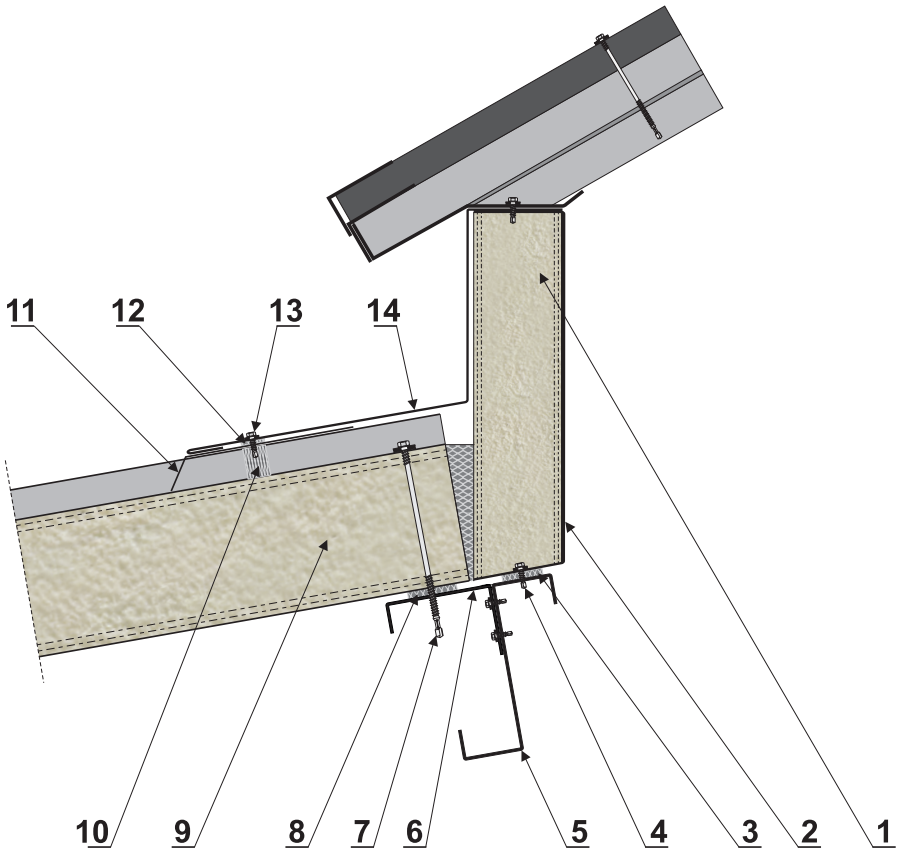
Figure 22



1 - base of the skylight
2 - isolating material or mineral wool
3 - self-drilling joint
4 - construction element
5 - construction element
external individual gutter flashing
6 - joint for mounting panels PWD-PIR
isolating material or sealing foam
7 - sealing tape
8 - roof panel PWD-PIR
9 - individual flashing
10 - self-drilling joint
11 - top facing of the roof panel, bend slightly

Skylight next to ridge from canopy PWD-PIR

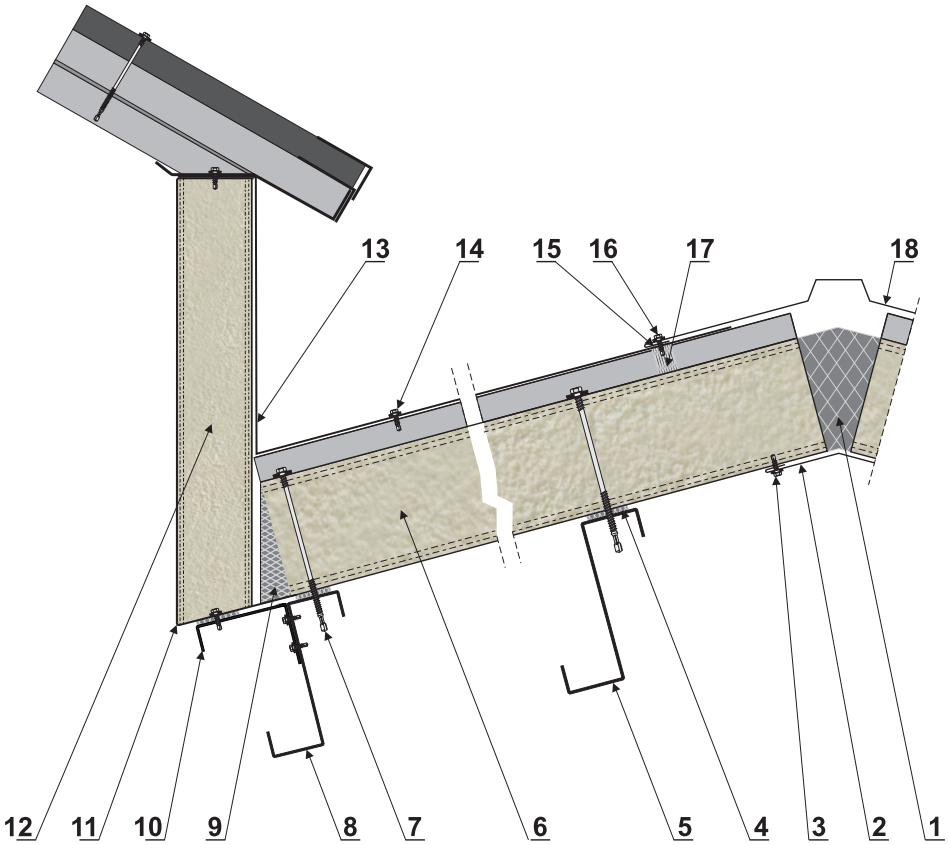
Figure 23



1 - isolating material or mineral wool
2 - base of the skylight
3 - sealing tape
4 - self-drilling joint
5 - construction element
6 - construction element
7 - joint for mounting panels PWD-PIR
8 - sealing tape
9 - roof panel PWD-PIR
10 - sealing tape
11 - closing flashing OBR-PIR-PD4
12 - butyl tape
13 - self-drilling joint
14 - individual flashing

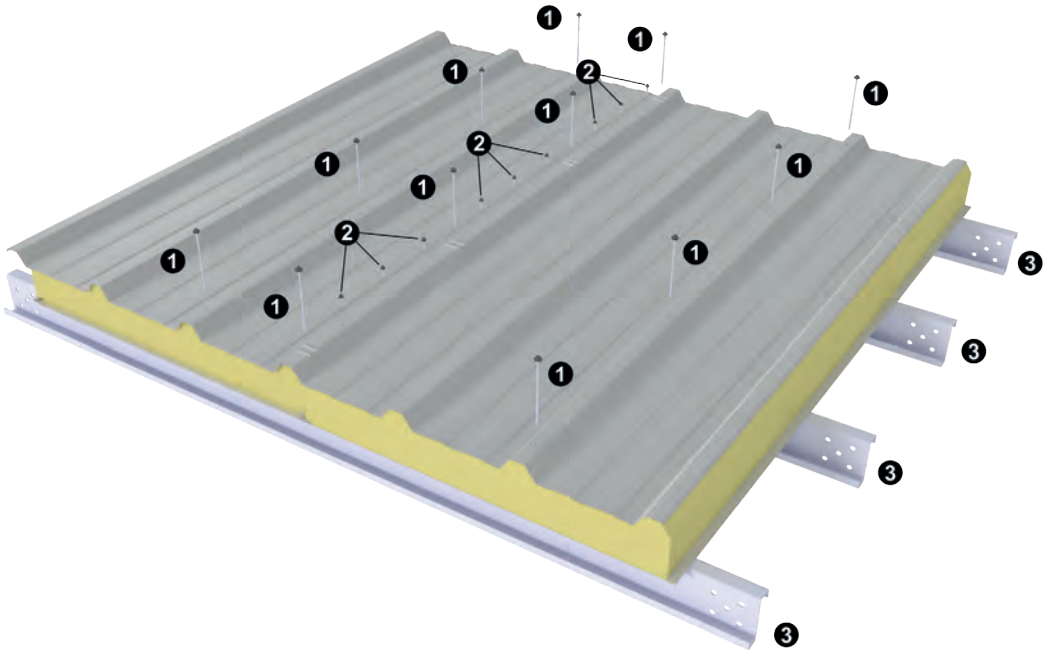
**Skylight next to ridge
ridge side
PWD-PIR**

Figure 24



1 - isolating material or mineral wool
2 - internal mask flashing
3 - self-drilling joint or rivet
4 - sealing tape
5 - construction element
6 - roof panel PWD-PIR
7 - joint for mounting panels PWD-PIR isolating material or sealing foam
8 - construction element
9 - isolating material or sealing foam
10- construction element
11 - base of the skylight
12 - isolating material or mineral wool
13 - individual flashing
14 - self-drilling joint
15 - sealing tape
16 - self-drilling joint
17 - butyl sealing tape
18 - ridge flashing OBR-PIR-PD3

Figure 25



1 - mounting joint for panel PWD-PIR
2 - Self-drilling screw
3 - Construction element

Figure 1
Rip off internal steel cladding from foam.

Figure 2
Deepen the cut of foam to the external cladding.

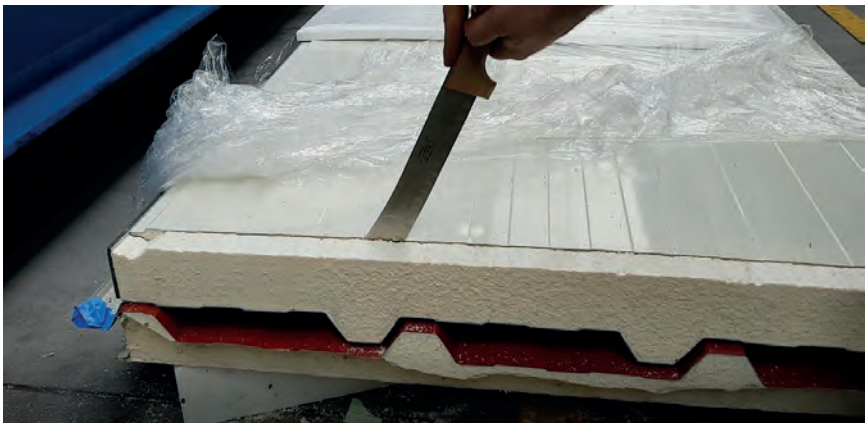


Figure 3a
Tear off the blue tape with foam.

Figure 3b

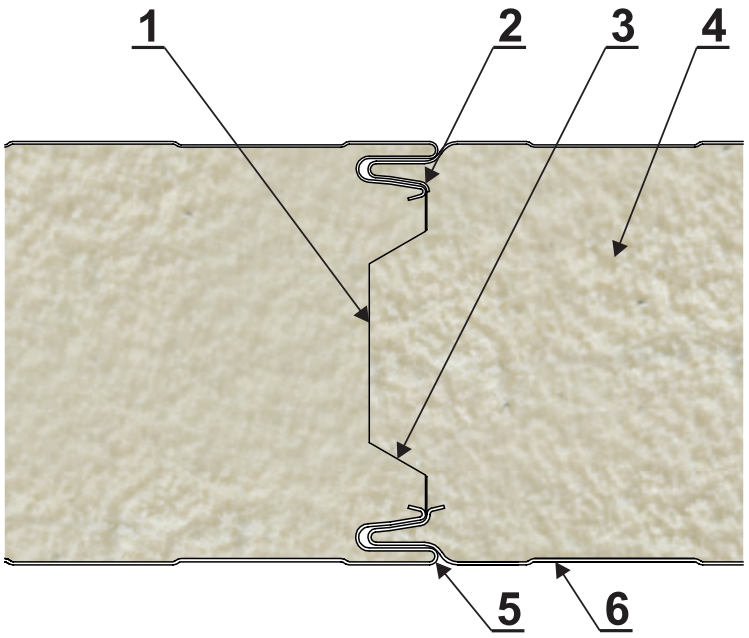
Figure 3c

Figure 4
Clean off the remain of the foam on overlap area.

Panel is dedicated for cold insulation case in buildings such as freezers and coolers.

Assembly panels PWS-PIR-CH
Joint lock
Panel thickness 120 mm – 180 mm

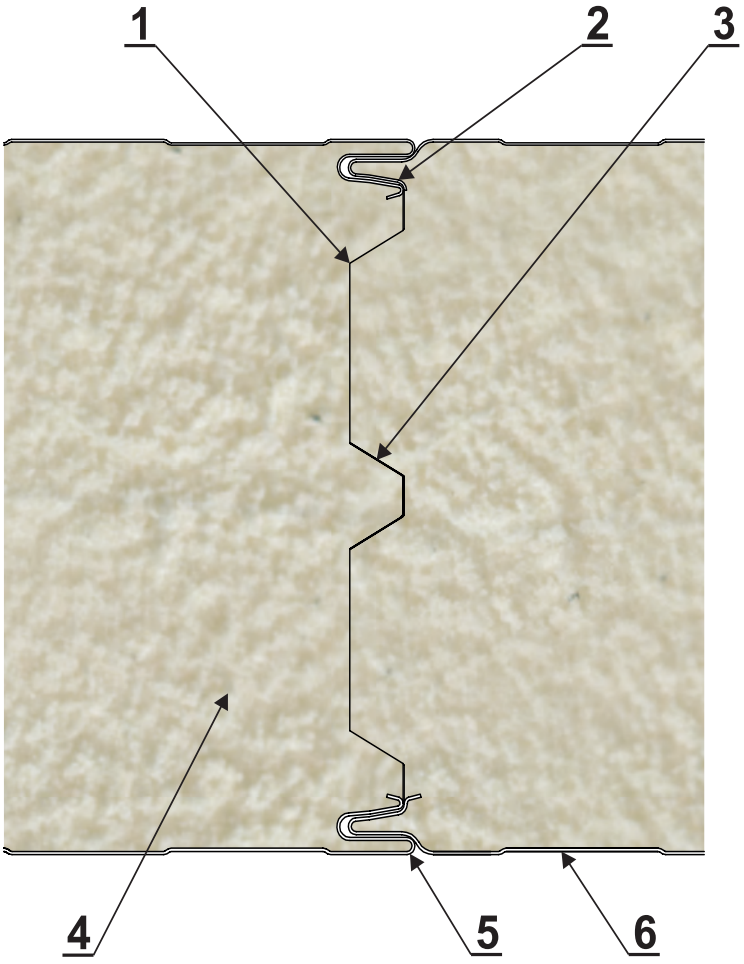
Figure 1



1 - longitude milled joint increasing fire tightness and thermal isolationą
2 - conical shape and optimal choice of longitudinal slope contact surface angle, allow quick and precise assembly
3 - ultimate conformation of part of the core (milled joint) minimizing the linear thermal bridge
4 - rigid foam PIR core, harmless for natural environment, very low coefficient of heat transmission
5 - bending radius of facings are optimally designed to prevent protective coatings from damages
6 - variety of facings profiling provides aesthetic look of the facade

Assembly panels PWS-PIR-CH
Joint lock
Panel thickness 200 mm – 220 mm

Figure 2

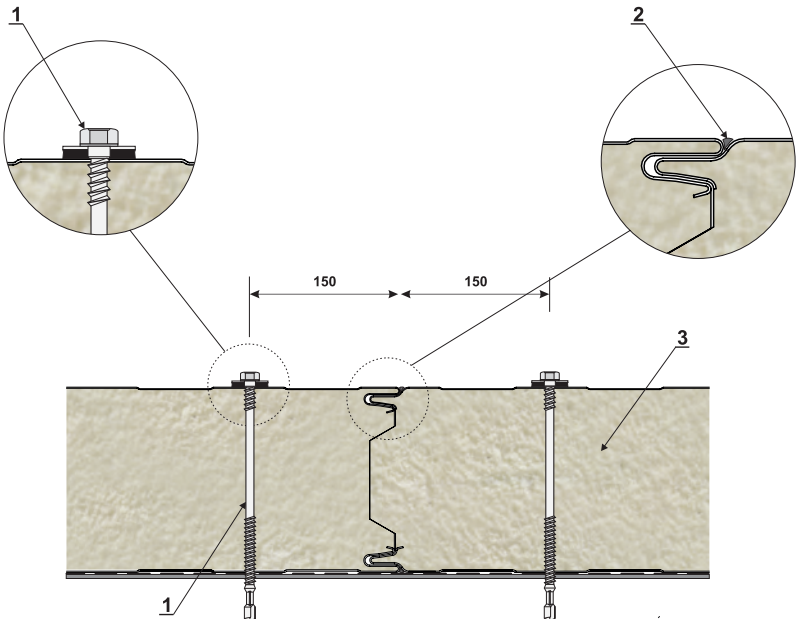


1 - longitude milled joint increasing fire tightness and thermal isolation
2 - conical shape and optimal choice of longitudinal slope contact surface angle, allow quick and precise assembly
3 - ultimate conformation of part of the core (milled joint) minimizing the linear thermal bridge
4 - stiff foam PIR core, harmless for natural environment, very low coefficient of heat transmission
5 - bending radius of facings are optimally designed to prevent protective coatings from damages
6 - variety of facings profiling provides aesthetic look of the facade

Mounting panels PWS-PIR-CH
Joint lock

VERTICAL SYSTEM

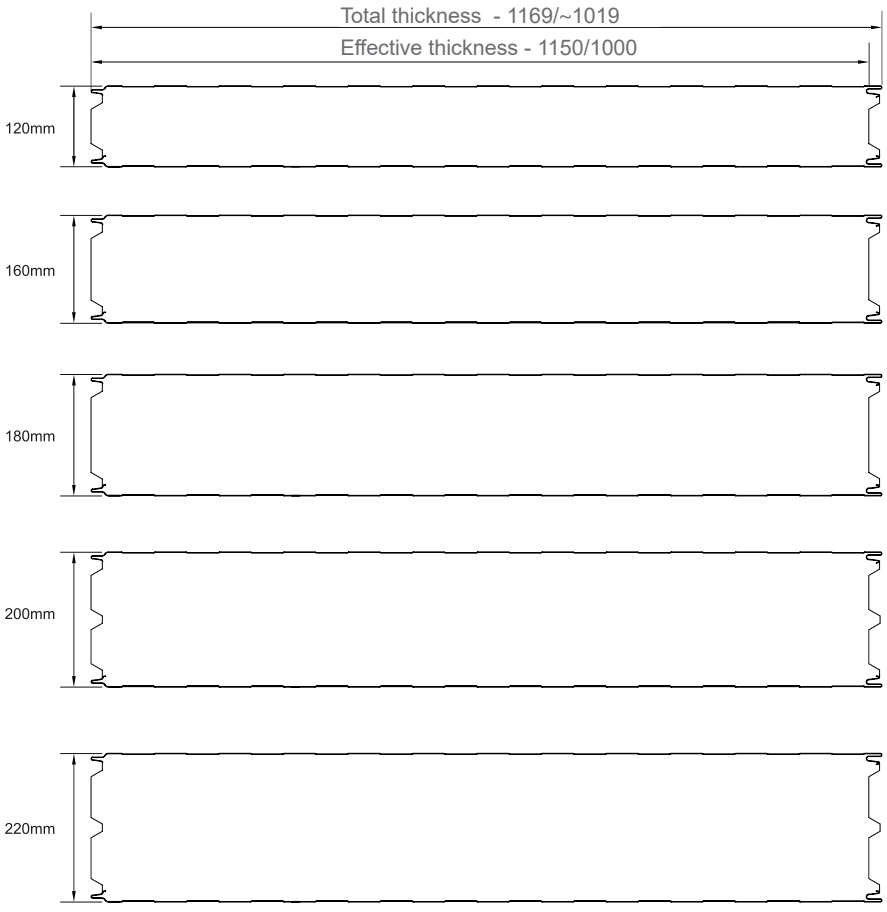
Figure 3



1 - stainless joint
2 - permanently plastic compound
3 - panel PWS-PIR-CH

Thickness of panels PWS-PIR-CH

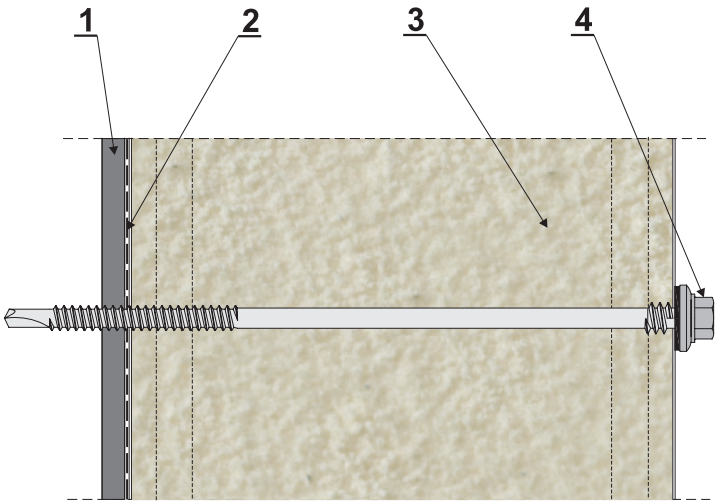
Figure 4



Mounting panels PWS-PIR-CH

VERTICAL SYSTEM/HORIZONTAL SYSTEM

Figure 5

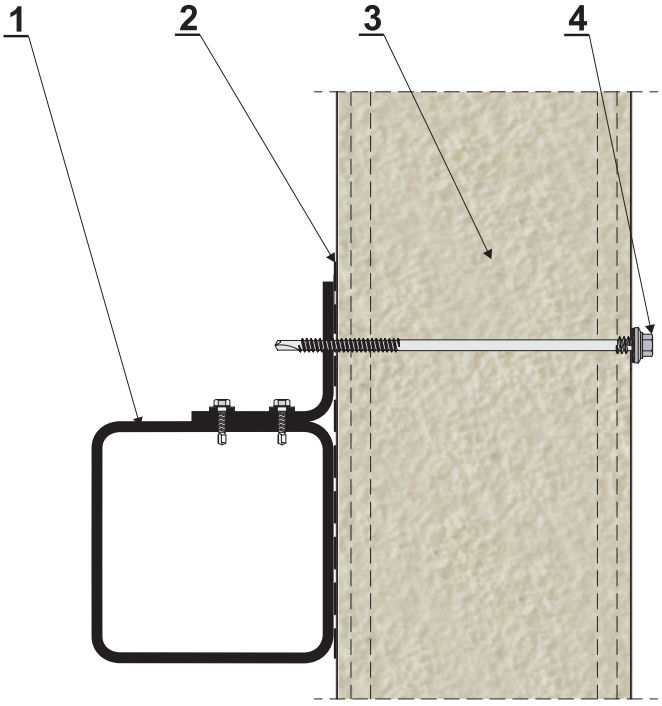


1 - construction element
2 - polyethylene tape
3 - sandwich panel PWS-PIR-CH
4 - stainless joint

Mounting panels PWS-PIR-CH from hot rolled bolt

VERTICAL SYSTEM

Figure 6

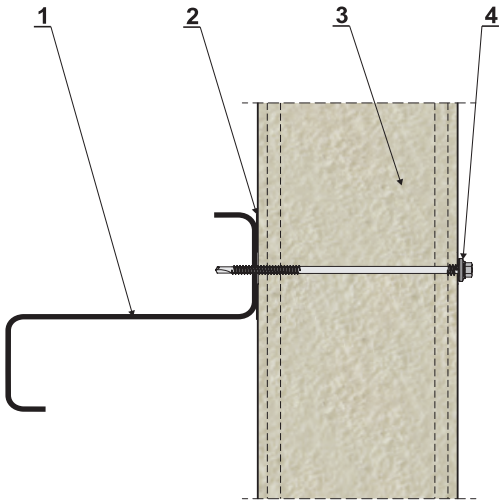


1 - construction element
2 - polyethylene tape
3 - sandwich panel PWS-PIR-CH
4 - stainless joint

Mounting panels PWS-PIR-CH from thin wall bolt

VERTICAL SYSTEM

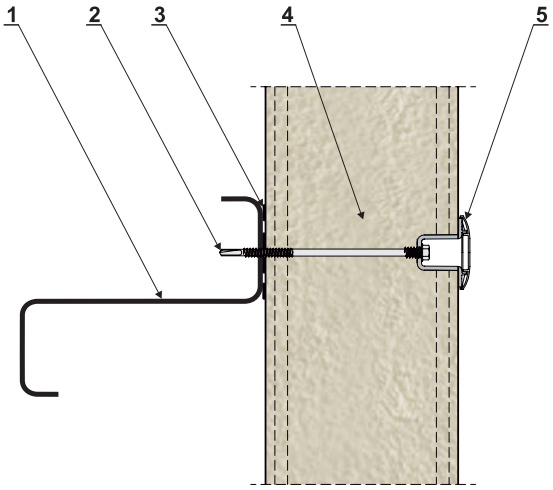
Figure 7



1 - construction element
2 - polyethylene tape
3 - sandwich panel PWS-PIR-CH
4 - stainless joint

Mounting panels PWS-PIR-CH from thin wall bolt LAX joint

Figure 8

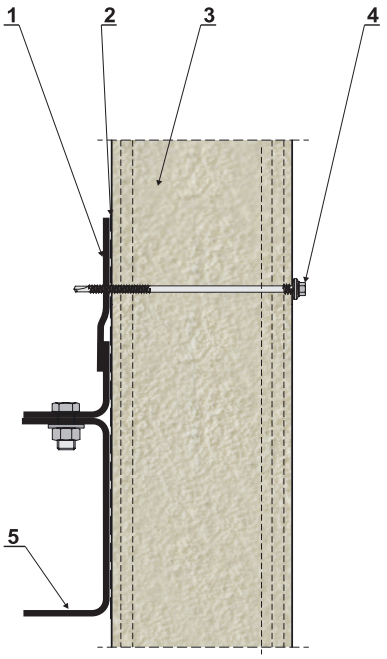


1 - construction element
2 - polyethylene tape
3 - sandwich panel PWS-PIR-CH
4 - stainless joint
5 - tulejka i zaślepka LAX

Sliding connection panels PWS-PIR-CH

VERTICAL SYSTEM

Figure 9

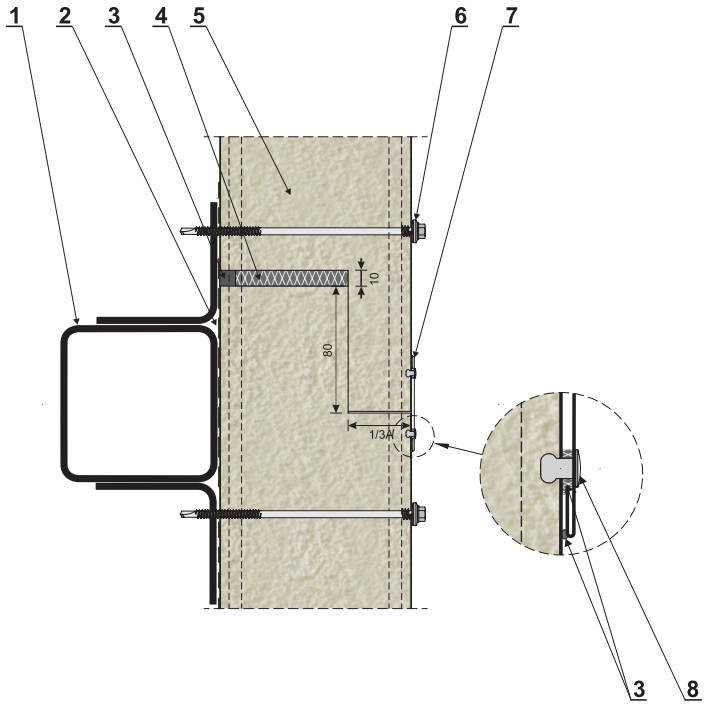


1 - individual supporting washer
2 - polyethylene tape
3 - sandwich panel PWS-PIR-CH
4 - stainless joint
5 - wall bolt

Mounting panels PWS-PIR-CH connection in bolt joining point on the length

VERTICAL SYSTEM

Figure 10

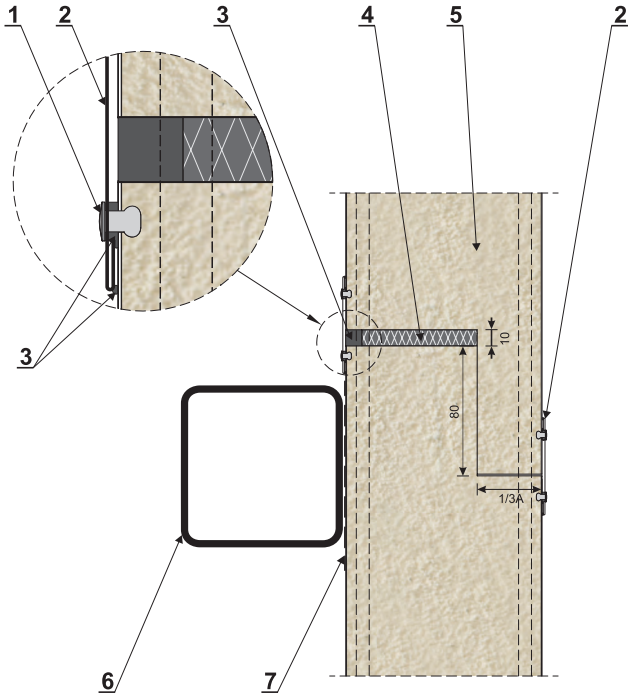


1 - construction element
2 - polyethylene tape
3 - permanently plastic compound
4 - montage foam
5 - sandwich panel PWS-PIR-CH
6 - stainless joint
7 - flashing OBR-PIR-CH4
8 - one-sided airtight rivet

Mounting panels PWS-PIR-CH connection beside boltjoining point on the length

VERTICAL SYSTEM

Figure 11

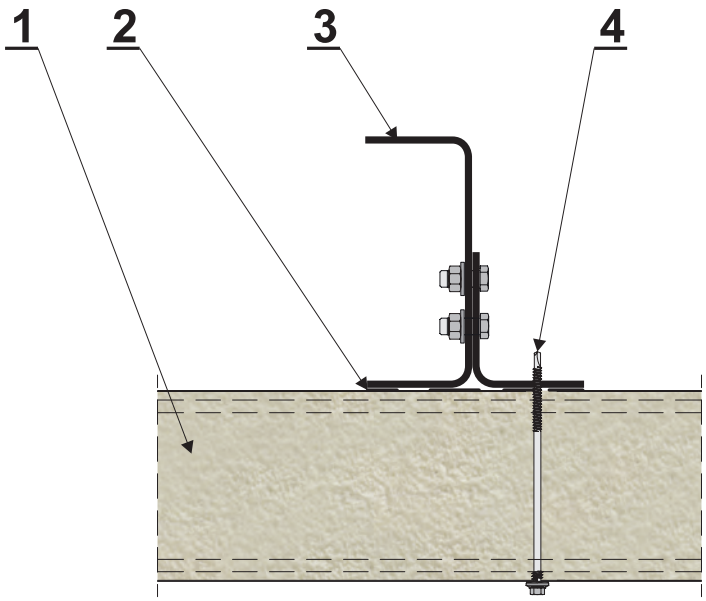


1 - onesided airtight rivet
2 - flashing OBR-PIR-CH4
3 - permanently plastic compound
4 - montage foam
5 - sandwich panel PWS-PIR-CH
6 - construction element
7 - polyethylene tape

Mounting panels PWS-PIR-CH to the ceiling

HORIZONTAL SYSTEM

Figure 12

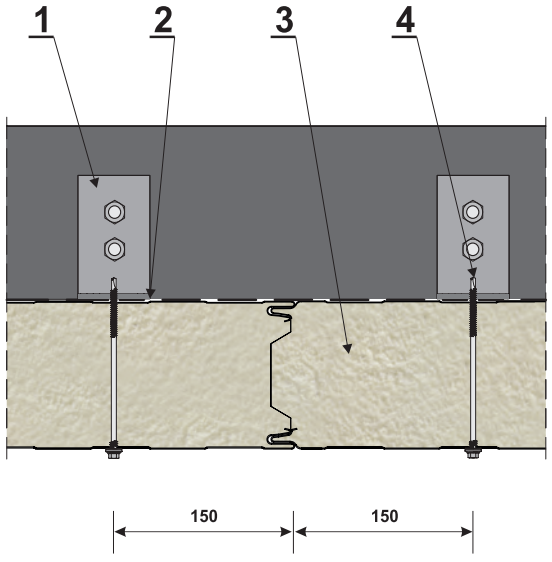


1 - sandwich panel PWS-PIR-CH
2 - polyethylene tape
3 - construction element
4 - stainless joint

Mounting panels PWS-PIR-CH to the ceiling

HORIZONTAL SYSTEM

Figure 13

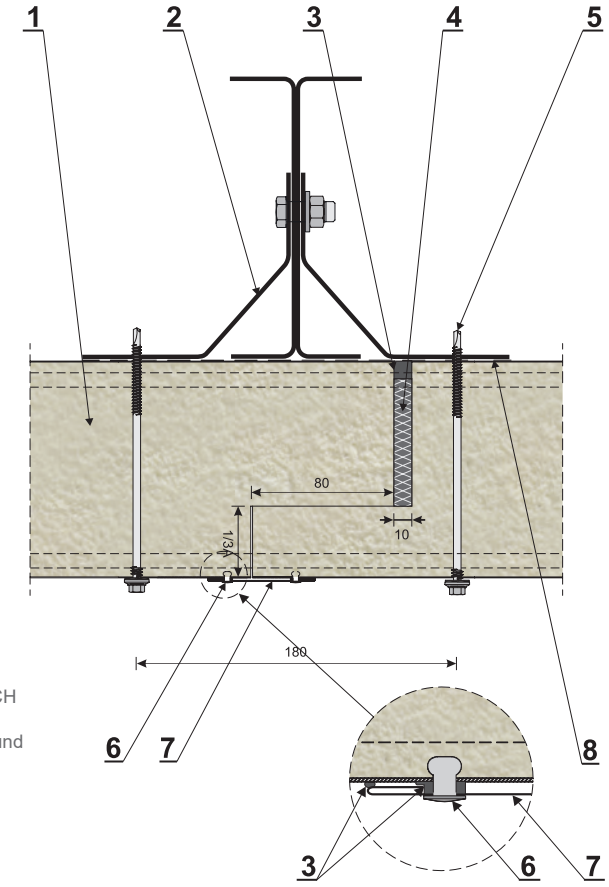


1 - construction element
2 - polyethylene tape
3 - sandwich panel PWS-PIR-CH
4 - stainless joint

Mounting panels PWS-PIR-CH on the length To the ceiling

HORIZONTAL SYSTEM

Figure 14

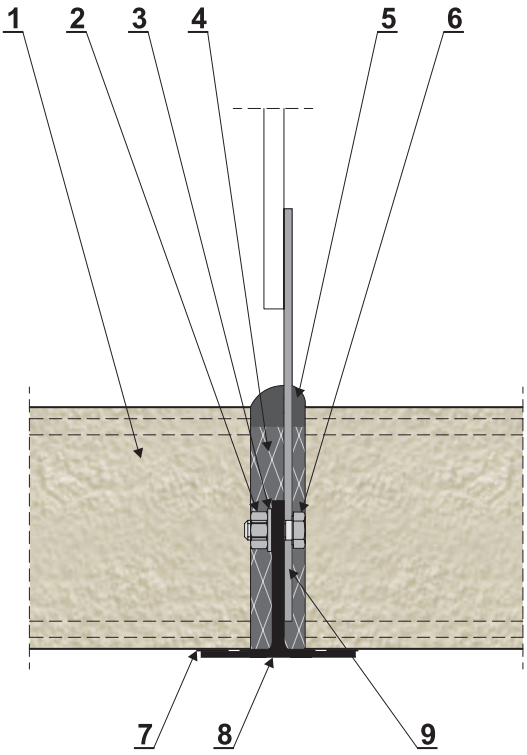


1 - sandwich panel PWS-PIR-CH
2 - construction element
3 - permanently plastic compound
4 - montage foam
5 - stainless joint
6 - one-sided airtight rivet
7 - flashing OBR-PIR-CH4
8 - polyethylene tape

Mounting panels PWS-PIR-CH to the ceiling – T profile

HORIZONTAL SYSTEM

Figure 15

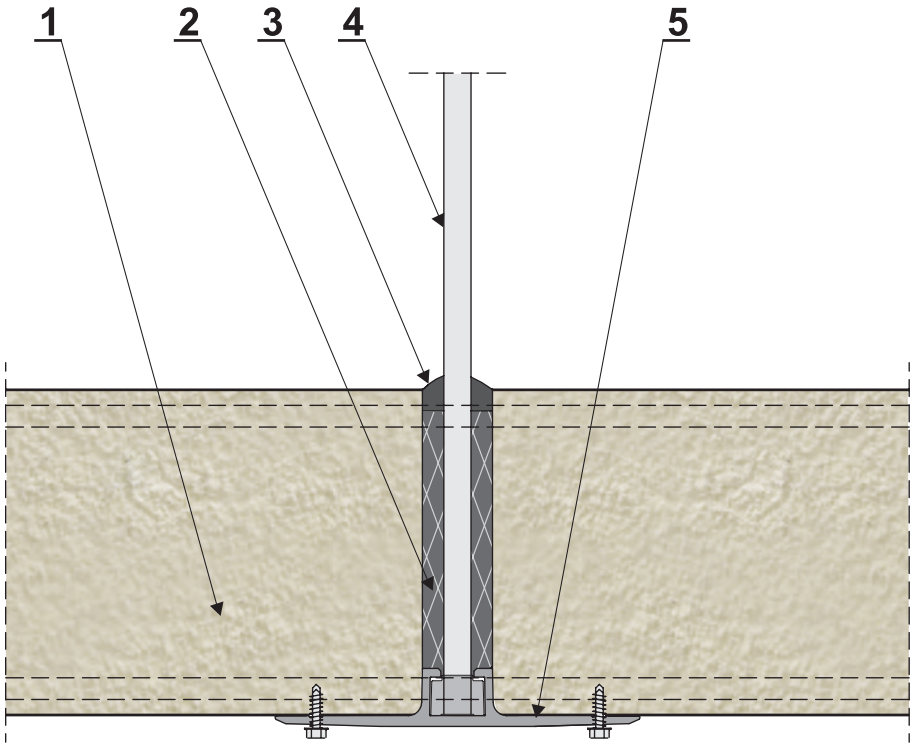


1 - sandwich panel PWS-PIR-CH
2 - zinc plated nut
3 - zinc plated washer
4 - montage foam
5 - permanently plastic compound
6 - zinc plated screw
7 - polyethylene tape
8 - T-profile
9 - hanger – tie-rod

Mounting panels PWS-PIR-CH to the ceiling – aluminum profile

SOLUTION I

Figure 16



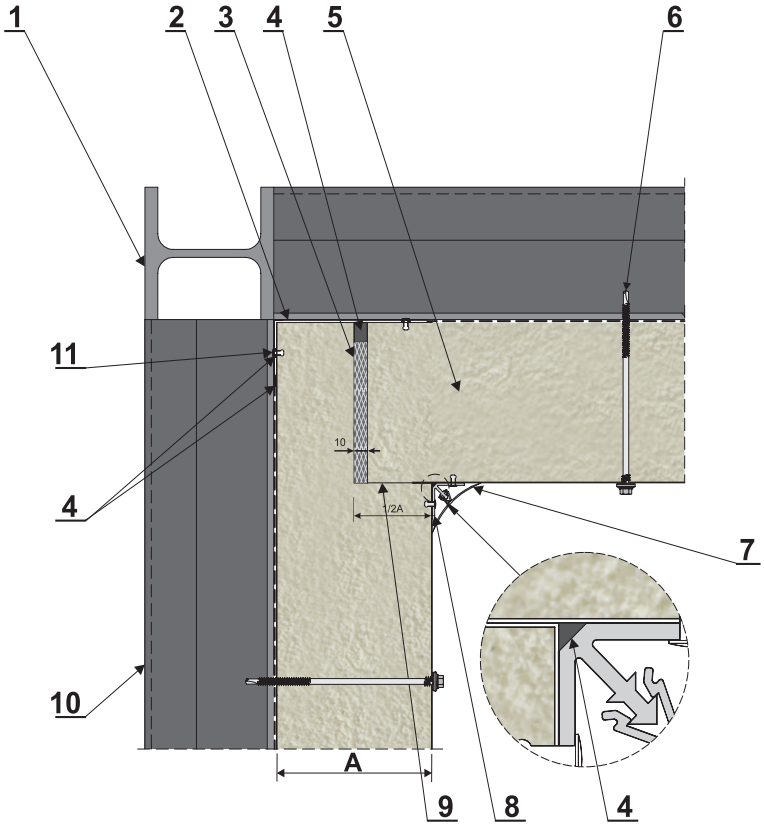
1 - sandwich panel PWS-PIR-CH
2 - montage foam
3 - permanently plastic compound
4 - hanger – tie-rod
5 - aluminum profile

Mounting panels PWS-PIR-CH in the corner

VERTICAL SYSTEM

SOLUTION I

Figure 17



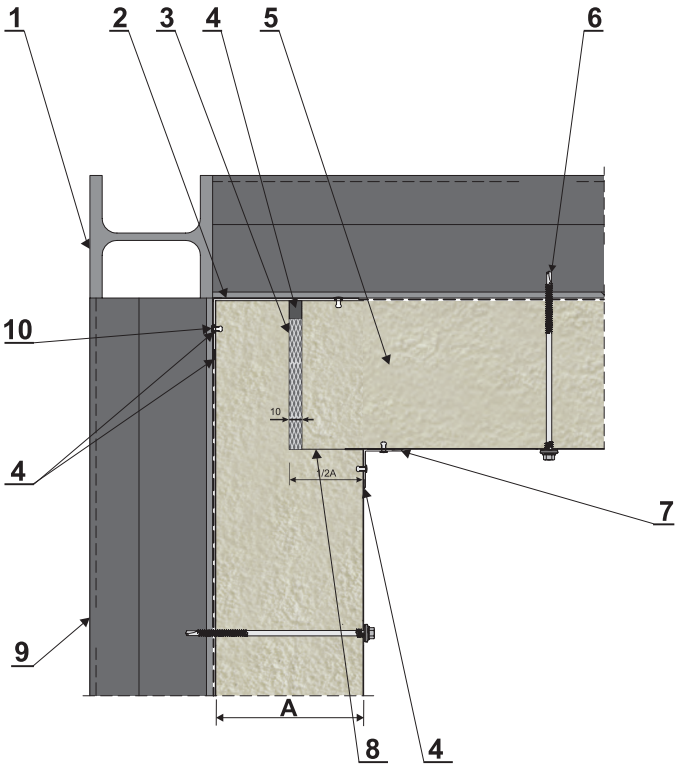
1 - post
2 - OBR-PIR-CH1
3 - montage foam
4 - permanently plastic compound
5 - sandwich panel PWS-PIR-CH
6 - stainless joint
7 - corner profile PCV
8 - mounting profile PCV
9 - cracked facing on length ½ A
10 - wall bolt
11 - one-sided airtight rivet

Mounting panels PWS-PIR-CH in the corner

VERTICAL SYSTEM

SOLUTION II

Figure 18



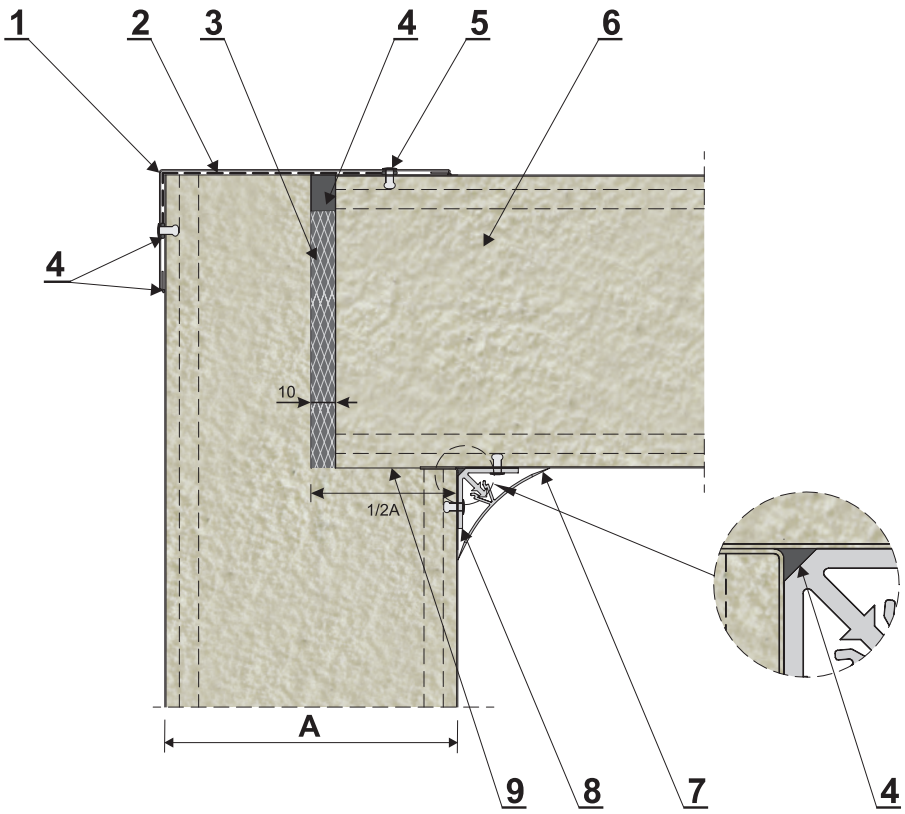
1 - post
2 - OBR-PIR-CH1
3 - montage foam
4 - permanently plastic compound
5 - sandwich panel PWS-PIR-CH
6 - stainless joint
7 - flashing OBR-PIR-CH2
8 - cracked facing on length ½ A
9 - wall bolt
10 - one-sided airtight rivet

Mounting wall and roof panels PWS-PIR-CH in the corner

VERTICAL SYSTEM

SOLUTION I

Figure 19



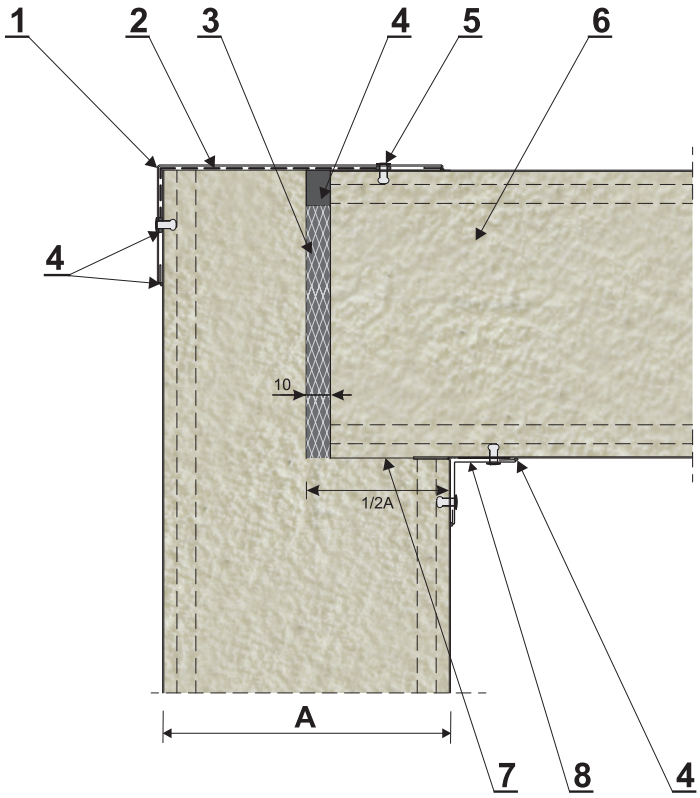
1 - OBR-PIR-CH1
2 - polyethylene tape
3 - montage foam
4 - permanently plastic compound
5 - one-sided airtight rivet
6 - sandwich panel PWS-PIR-CH
7 - corner profile PCV
8 - mounting profile PCV
9 - cracked facing on length ½ A

Mounting wall and roof panels PWS-PIR-CH in the corner

VERTICAL SYSTEM

SOLUTION II

Figure 20



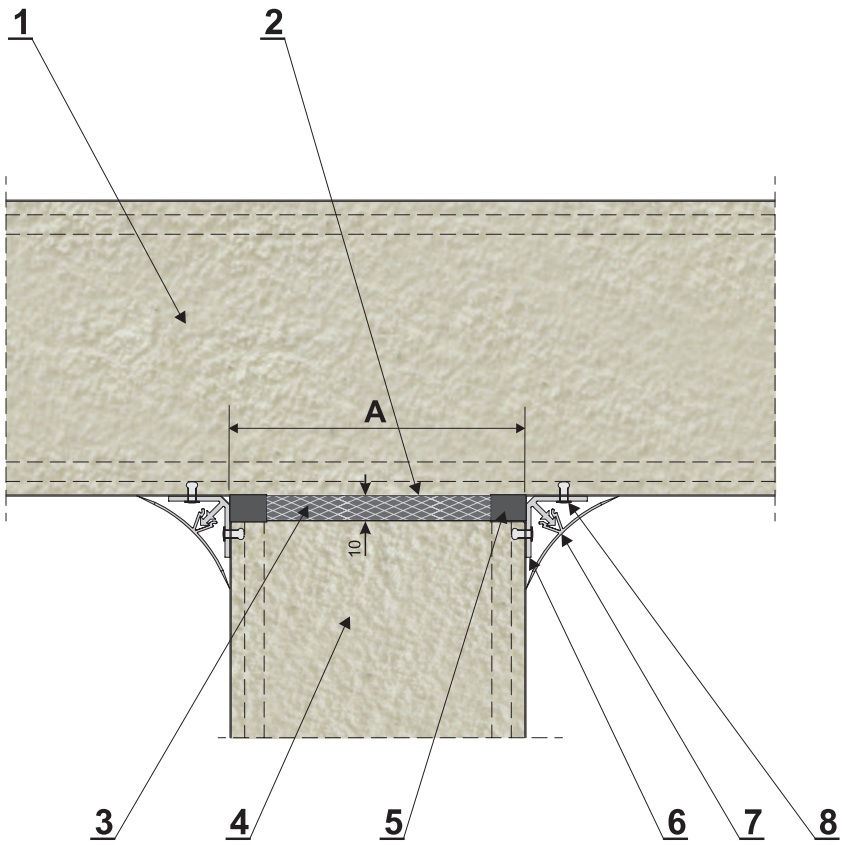
1 - OBR-PIR-CH1
2 - polyethylene tape
3 - montage foam
4 - permanently plastic compound
5 - one-sided airtight rivet
6 - sandwich panel PWS-PIR-CH
7 - cracked facing on length ½ A
8 - flashing OBR-PIR-CH2

Mounting panels PWS-PIR-CH Division wall to external wall and division wall to the ceiling

VERTICAL/HORIZONTAL SYSTEM

SOLUTION I

Figure 21



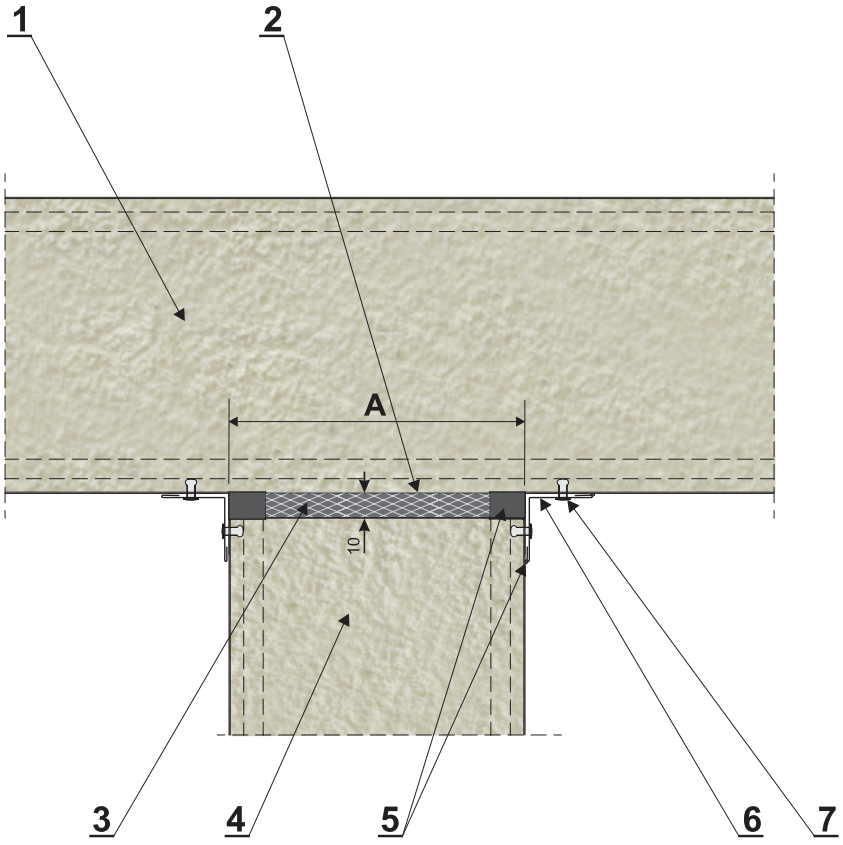
1 - sandwich panel PWS-PIR-CH
2 - cracked facing on length ½ A
3 - montage foam
4 - sandwich panel PWS-PIR-CH
5 - permanently plastic compound
6 - mounting profile PCV
7 - corner profile PCV
8 - one-sided airtight rivet

Mounting panels PWS-PIR-CH Division wall to external wall and division wall to the ceiling

VERTICAL/HORIZONTAL SYSTEM

SOLUTION II

Figure 22

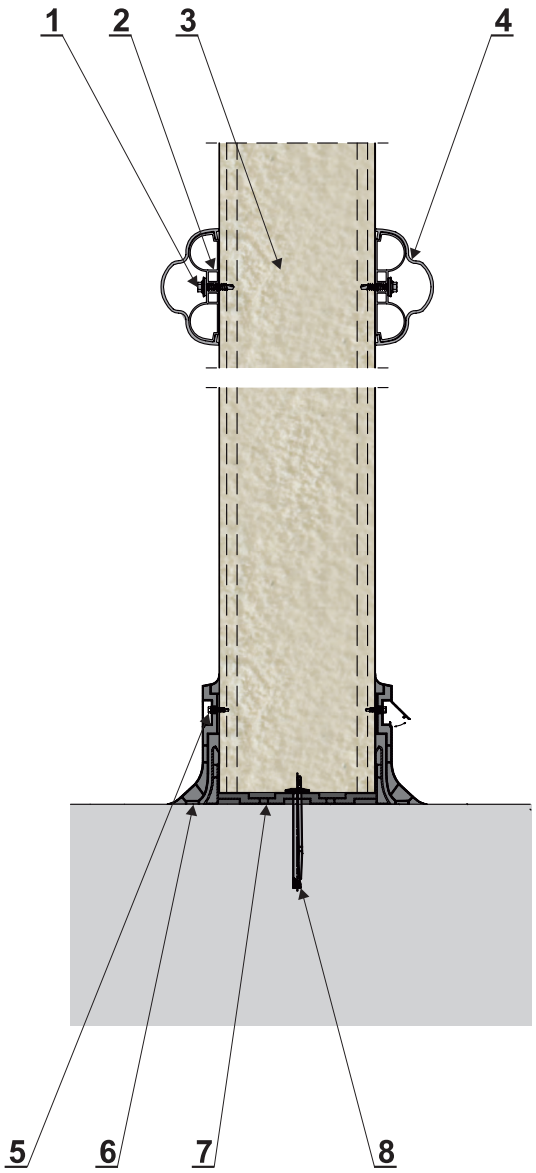


1 - sandwich panel PWS-PIR-CH
2 - cracked facing on length ½ A
3 - montage foam
4 - sandwich panel PWS-PIR-CH
5 - permanently plastic compound
6 - flashing OBR-PIR-CH2
7 - one-sided airtight rivet

Mounting panels PWS-PIR-CH on channel profile

VERTICAL SYSTEM

Figure 23

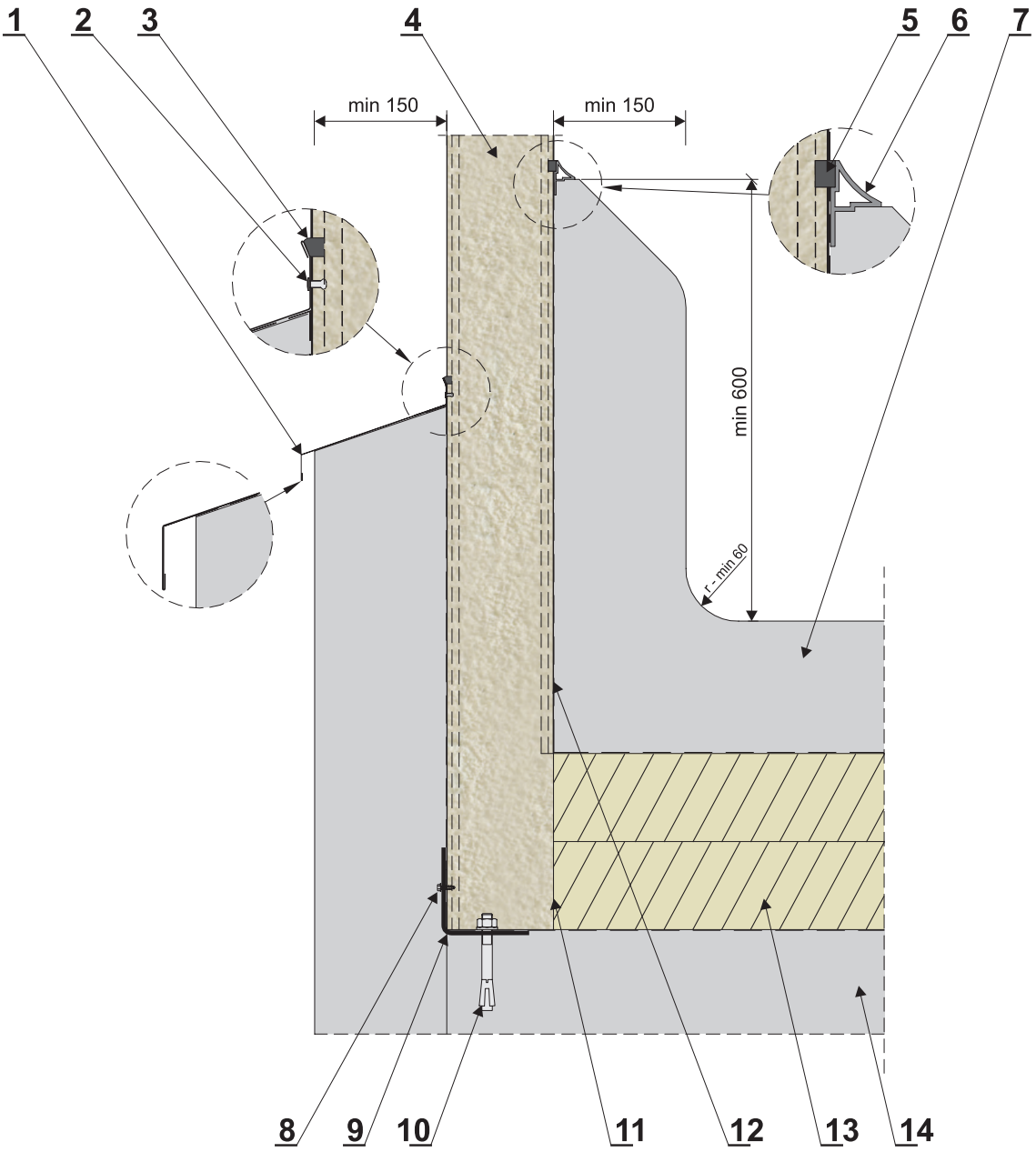


1 - assembly screw
2 - support element for mounting
3 - sandwich panel PWS-PIR-CH
4 - masking element
5 - self-drilling screw
6 - pedestal flashing PCV
7 - channel profile
8 - anchor bolt in concrete

Mounting external panels PWS-PIR-CH with floor and concrete pedestal

VERTICAL SYSTEM

Figure 24

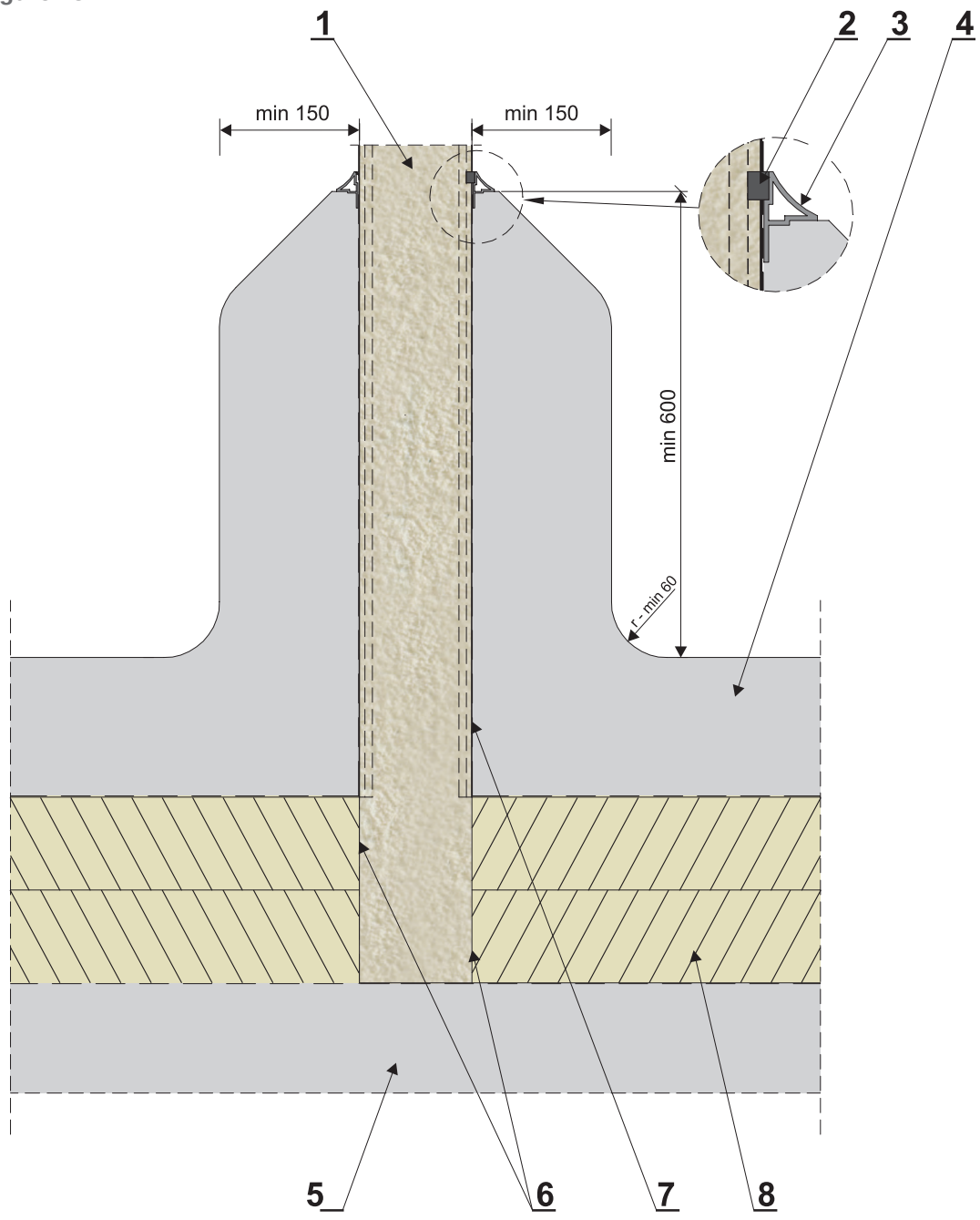


1 - flashing OBR-PIR-CH3
2 - one-sided airtight rivet
3 - butyl seal
4 - sandwich panel PWS-PIR-CH
5 - permanently plastic compound
6 - corner PCV
7 - concrete floor
8 - self-drilling screw
9 - cold-formed builder`s square
10 - anchor bolt in concrete
11 - cracked facing on thermal isolation height
12 - hydro-insulation
13 - thermal isolation
14 - concrete panel

Mounting internal panels PWS-PIR-CH with concrete pedestal

VERTICAL SYSTEM

Figure 25

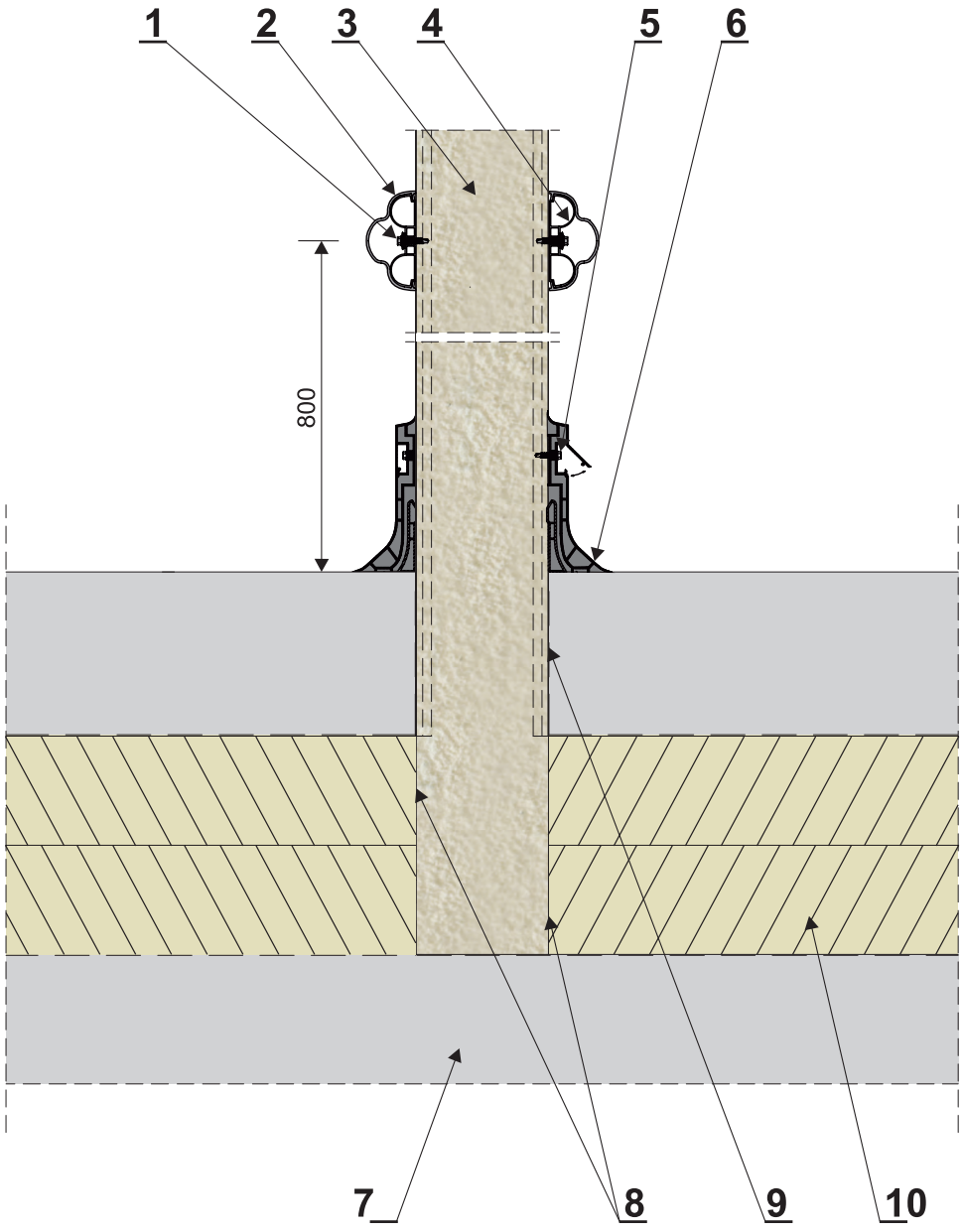


1 - sandwich panel PWS-PIR-CH
2 - permanently plastic compound
3 - corner PCV
4 - concrete floor
5 - concrete panel
6 - cracked facing on thermal isolation height
7 - hydro-insulation
8 - thermal isolation

Mounting internal panels PWS-PIR-CH with PCV pedestal

VERTICAL SYSTEM

Figure 26

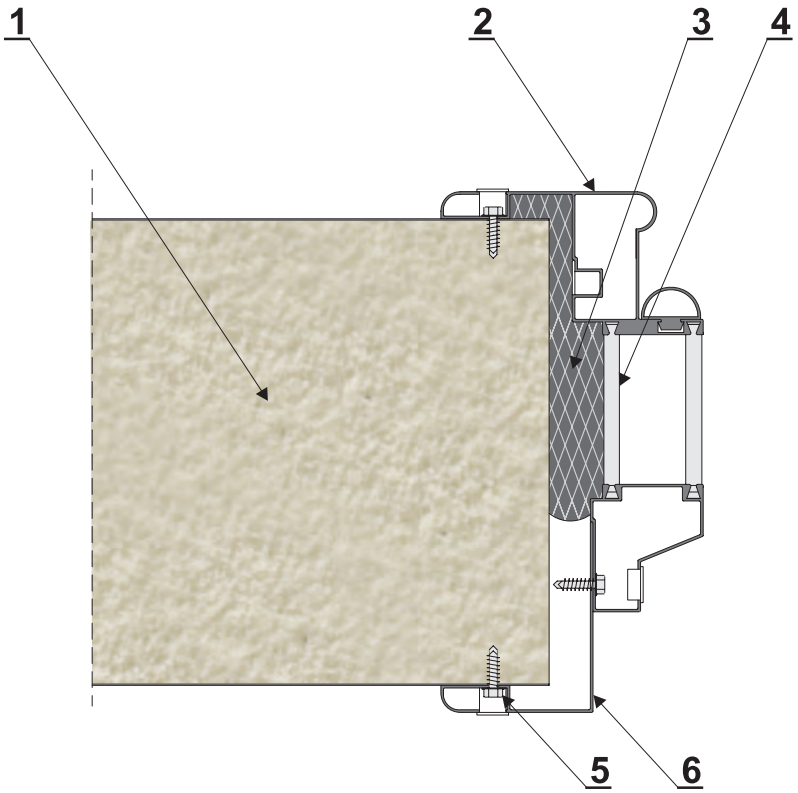


1 - assembly screw
2 - masking element
3 - sandwich panel PWS-PIR-CH
4 - support element for mounting
5 - self-drilling screw
6 - pedestal flashing PCV
7 - concrete panel
8 - cracked facing on thermal isolation height
9 - hydro-insulation
10 - thermal isolation

Placing of cooling doors

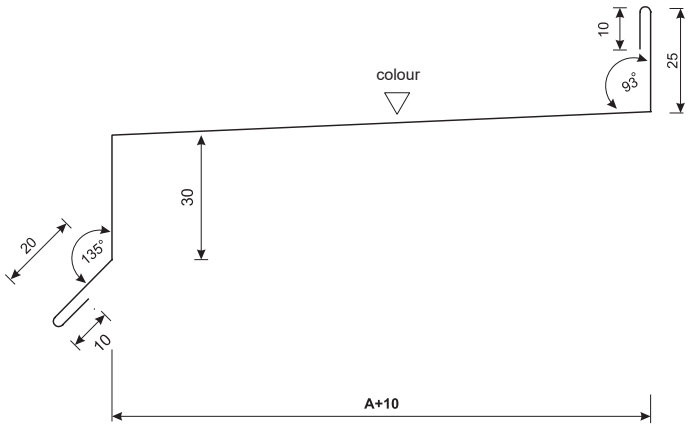
VERTICAL SYSTEM

Figure 27



1 - sandwich panel PWS-PIR-CH
2 - internal frame
3 - montage foam
4 - isolation washer
5 - assembly screw
6 - external frame

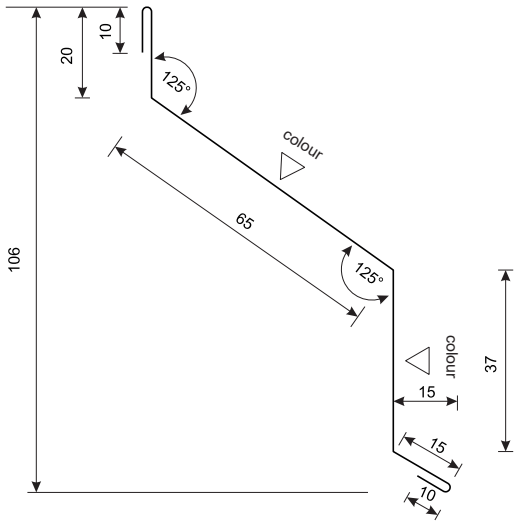
Pedestal flashing OBR-PIR-PS1



Flashing symbol	Measurement A+10 [mm]	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS1/40	50	145	0,58
OBR-PIR-PS1/50	60	155	0,62
OBR-PIR-PS1/60	70	165	0,66
OBR-PIR-PS1/80	90	185	0,74
OBR-PIR-PS1/100	110	205	0,82
OBR-PIR-PS1/120	130	225	0,90

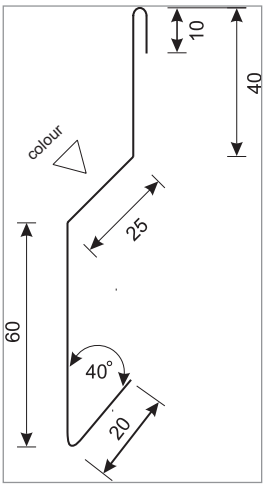
A = 40, 50, 60, 80, 100, 120 mm
(thickness of sandwich panel)

Masking flashing OBR-PIR-PS2



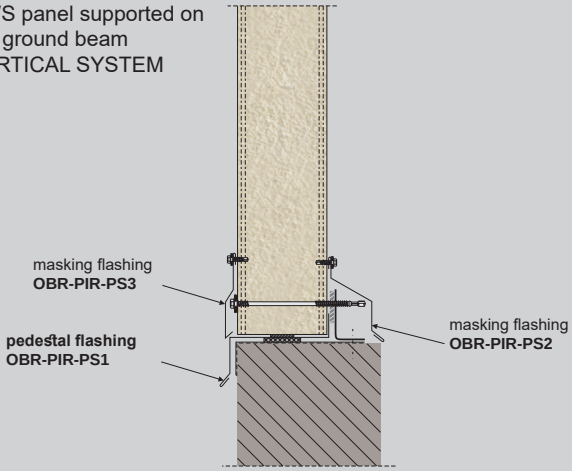
Flashing symbol	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS2	157	0,63

Masking flashing OBR-PIR-PS3

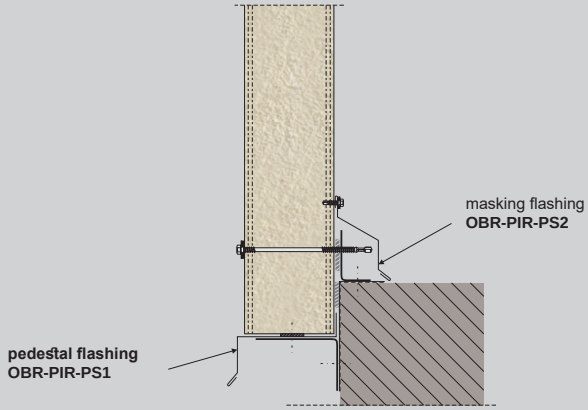


Flashing symbol	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS3	155	0,62

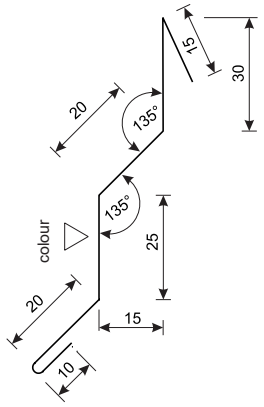
PWS panel supported on the ground beam
VERTICAL SYSTEM



PWS panel supported below the ground beam
VERTICAL SYSTEM

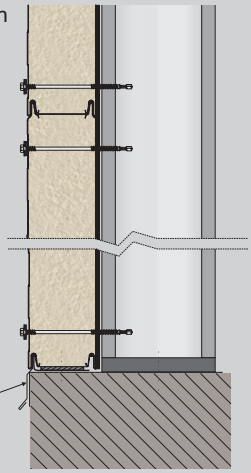


Pedestal feather – groove flashing
OBR-PIR-PS4

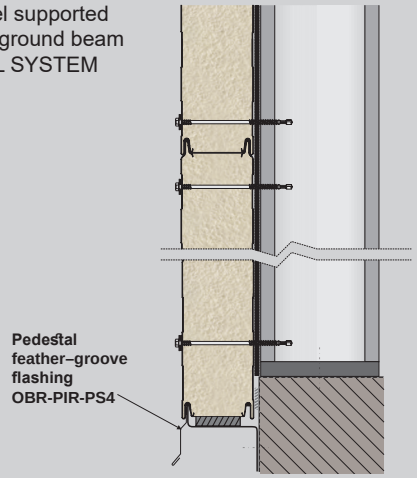


Flashing symbol	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS4	120	0,48

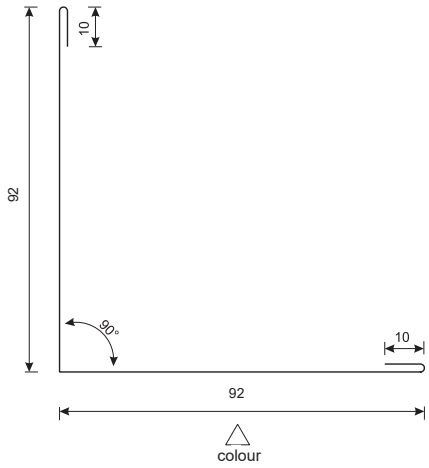
PWS panel supported on the ground beam
VERTICAL SYSTEM



PWS panel supported below the ground beam
VERTICAL SYSTEM

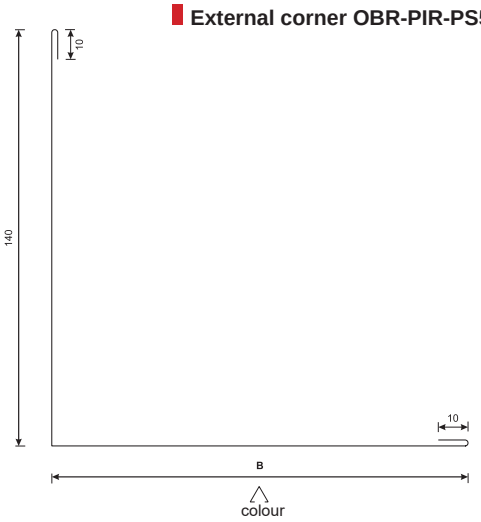


External corner OBR-PIR-PS5



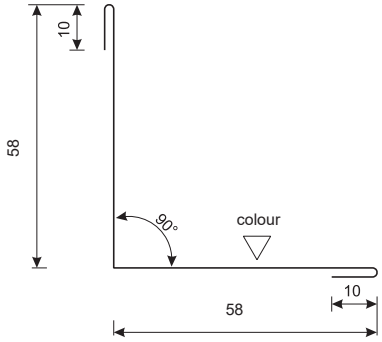
Flashing symbol	In expansion [mm]	Weight 1mb [kg/m]
OBR-PIR-PS5	204	0,82

External corner OBR-PIR-PS5A



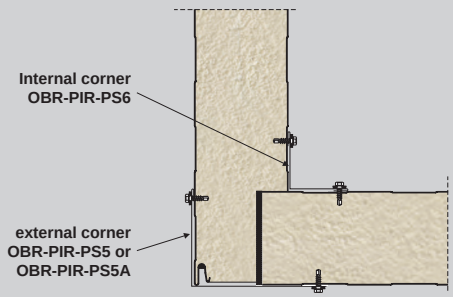
Flashing symbol	Measurement B [mm]	In expansion [mm]	Weight 1mb [kg/m]
OBR-PIR-PS5A / 100	140	300	1,20
OBR-PIR-PS5A / 120	160	320	1,28

Internal masking panel OBR-PIR-PS6



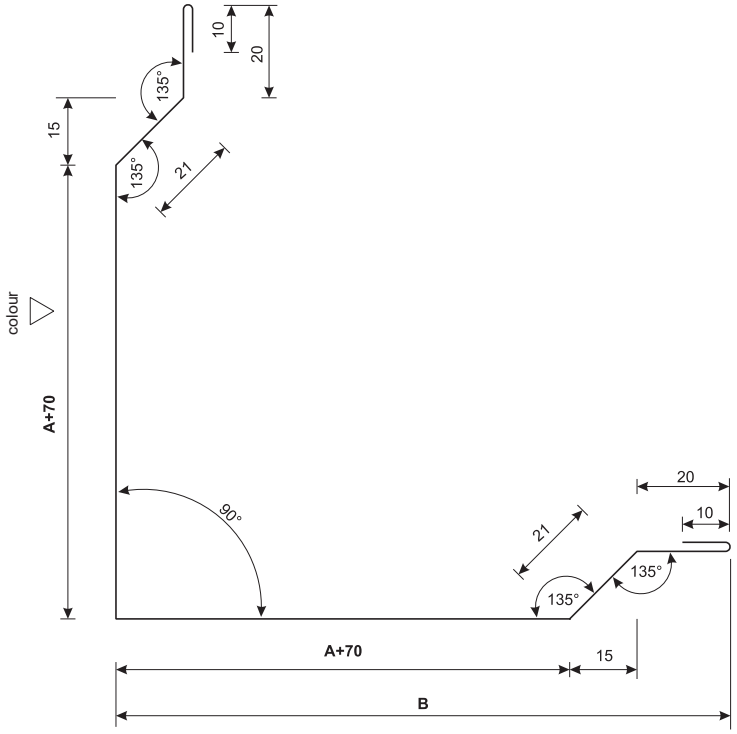
Flashing symbol	In expansion [mm]	Weight 1mb [kg/m]
OBR-PIR-PS6	136	0,54

PWS panel supported in the corner
HORIZONTAL/VERTICAL SYSTEM



Indentation of panels allows for application of external corner flashing in one width no matter what kind of thickness will be used.

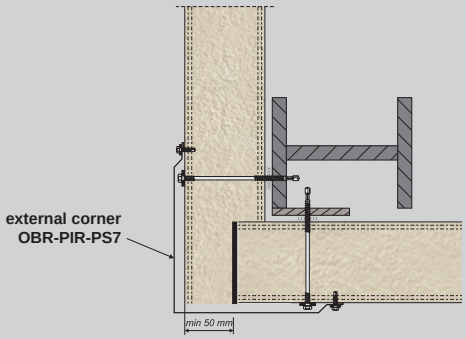
External corner OBR-PIR-PS7



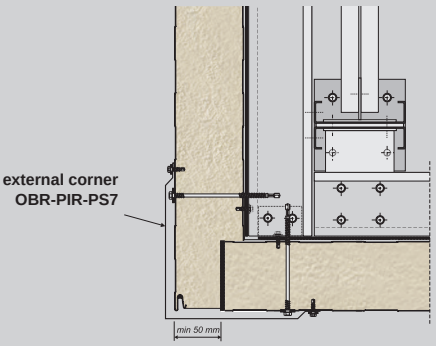
Flashing symbol	Measurement A+70 [mm]	Measurement B [mm]	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS7/40	110	145	322	1,28
OBR-PIR-PS7/50	120	155	342	1,37
OBR-PIR-PS7/60	130	165	362	1,44
OBR-PIR-PS7/80	150	185	402	1,60
OBR-PIR-PS7/100	170	205	442	1,77
OBR-PIR-PS7/120	190	225	482	1,93
OBR-PIR-PS7/160	230	265	562	2,24
OBR-PIR-PS7/180	250	285	602	2,40
OBR-PIR-PS7/200	270	305	642	2,56
OBR-PIR-PS7/220	290	325	682	2,72

A = 40, 50, 60, 80, 100, 120, 160, 180, 200, 220 mm
(thickness of sandwich panel)

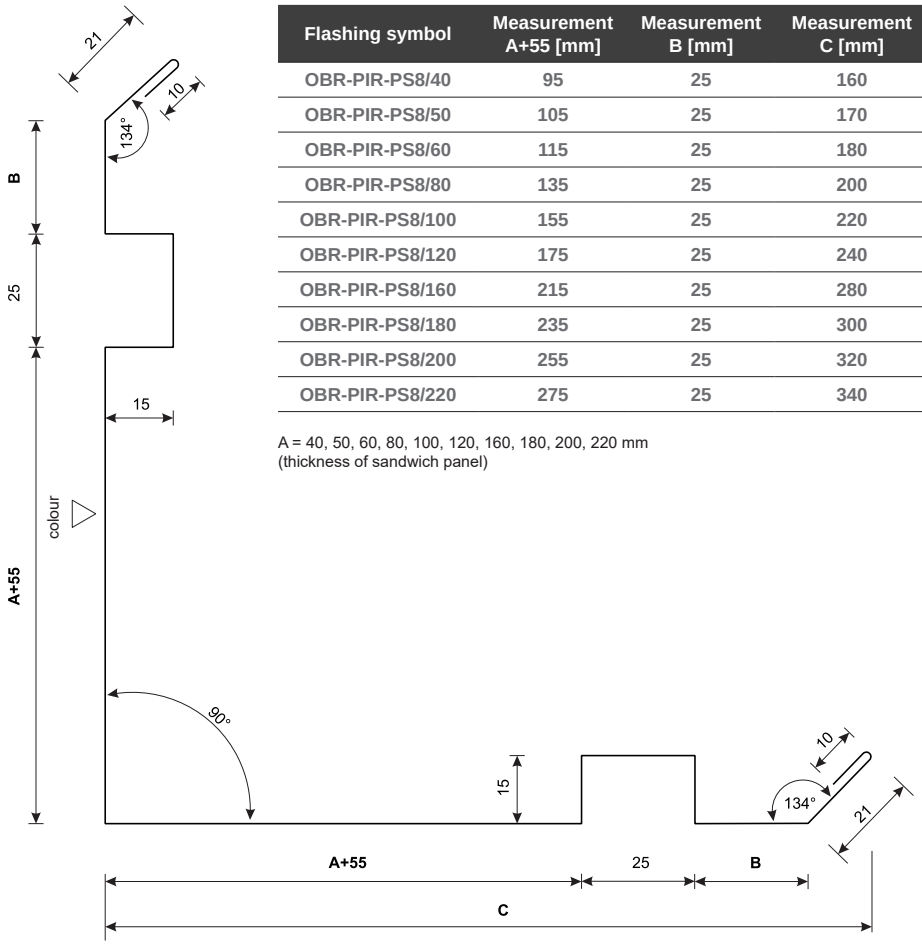
PWS panel supported in the corner solution III
HORIZONTAL SYSTEM



PWS panel supported in the corner
VERTICAL SYSTEM



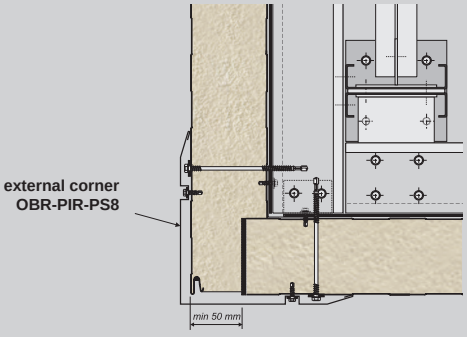
External corner OBR-PIR-PS8



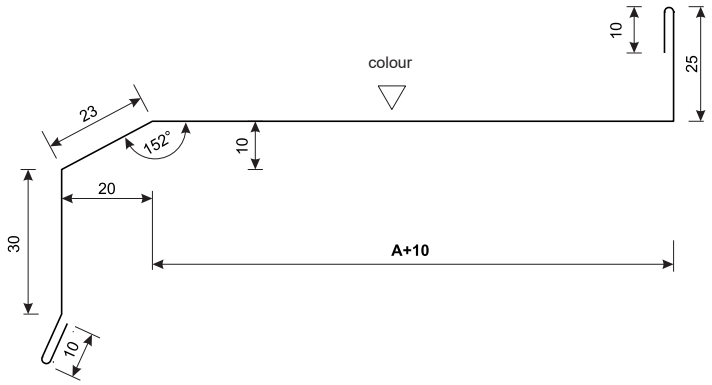
Flashing symbol	Measurement A+55 [mm]	Measurement B [mm]	Measurement C [mm]	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS8/40	95	25	160	412	1,64
OBR-PIR-PS8/50	105	25	170	432	1,72
OBR-PIR-PS8/60	115	25	180	452	1,80
OBR-PIR-PS8/80	135	25	200	492	1,97
OBR-PIR-PS8/100	155	25	220	532	2,12
OBR-PIR-PS8/120	175	25	240	572	2,28
OBR-PIR-PS8/160	215	25	280	652	2,60
OBR-PIR-PS8/180	235	25	300	692	2,76
OBR-PIR-PS8/200	255	25	320	732	2,92
OBR-PIR-PS8/220	275	25	340	772	3,08

A = 40, 50, 60, 80, 100, 120, 160, 180, 200, 220 mm
(thickness of sandwich panel)

PWS panel supported in the corner solution IV
HORIZONTAL/VERTICAL SYSTEM



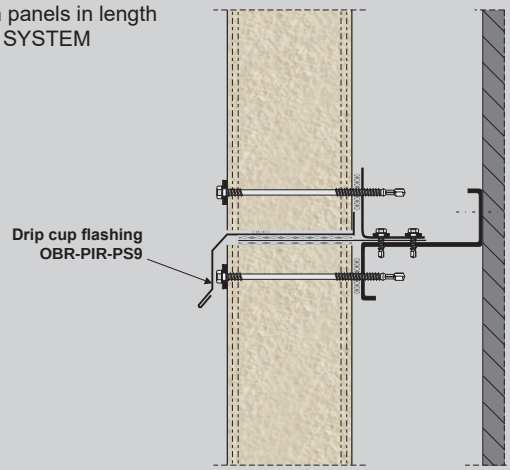
Drip cup flashing OBR-PIR-PS9



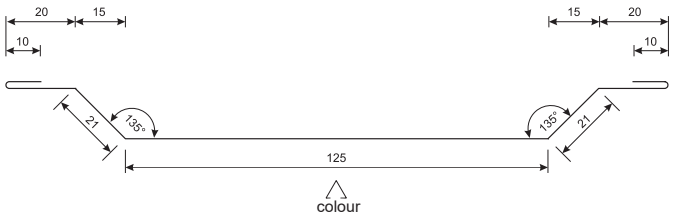
Flashing symbol	Measurement A+70 [mm]	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS9/40	50	158	0,63
OBR-PIR-PS9/50	60	168	0,67
OBR-PIR-PS9/60	70	178	0,71
OBR-PIR-PS9/80	90	198	0,79
OBR-PIR-PS9/100	110	218	0,87
OBR-PIR-PS9/120	130	238	0,95

A = 40, 50, 60, 80, 100, 120 mm
(thickness of sandwich panel)

Connection panels in length
VERTICAL SYSTEM

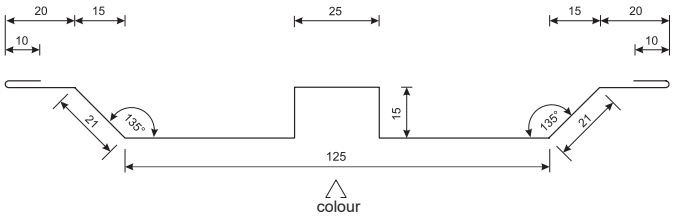


Masking flashing OBR-PIR-PS10



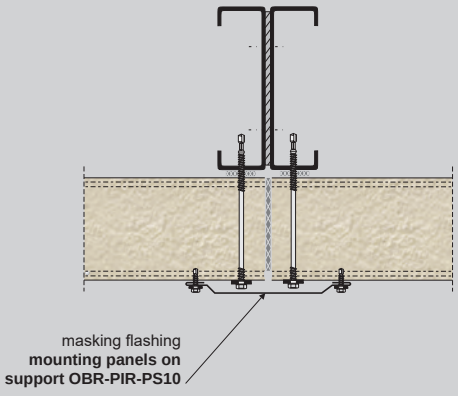
Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS10	227	0,70

Masking flashing OBR-PIR-PS11

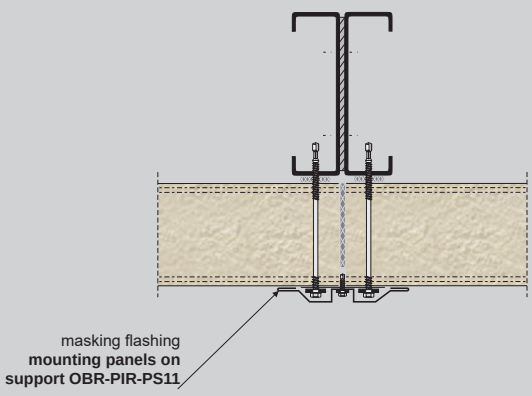


Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS11	257	0,82

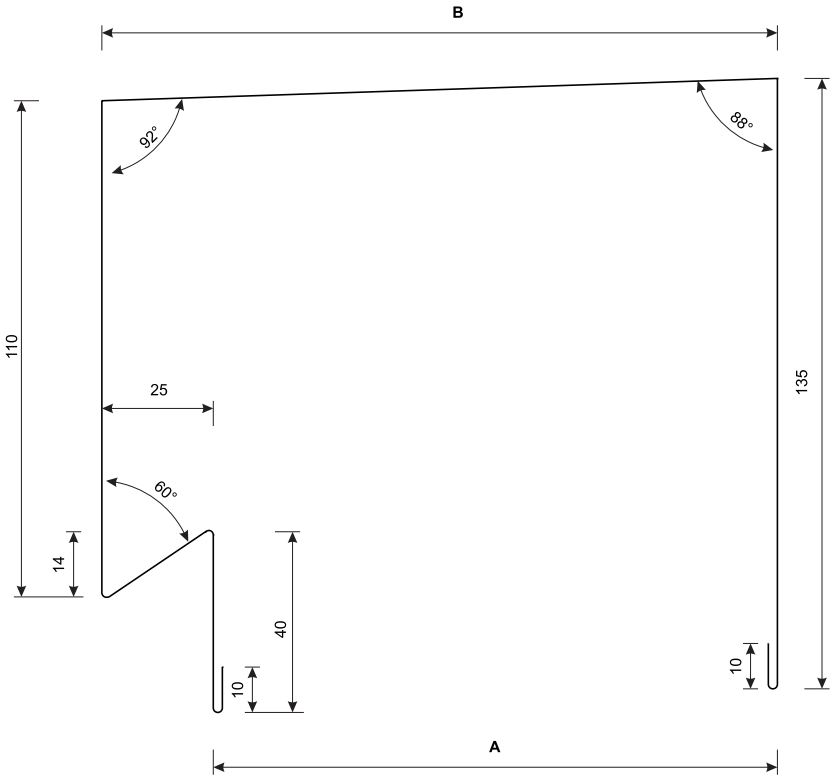
Mounting panels to the pole – Edge support – solution I
HORIZONTAL SYSTEM



Mounting panels to the pole – Edge support – solution II
HORIZONTAL SYSTEM



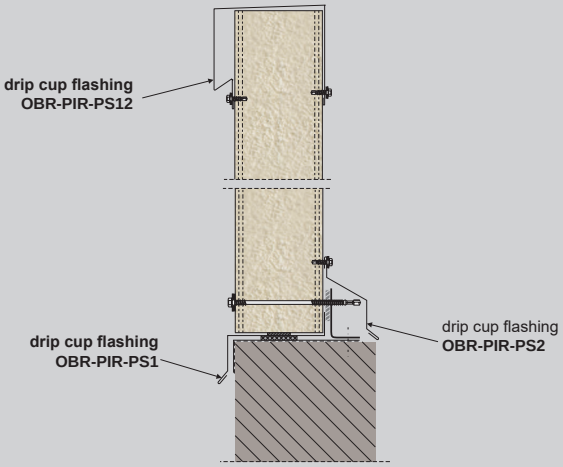
Attica flashing OBR-PIR-PS12



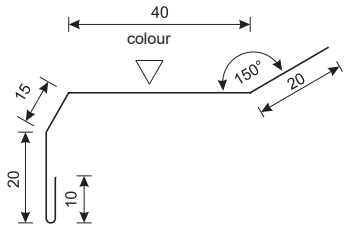
Flashing symbol	Measurement A [mm]	Measurement B [mm]	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS12/40	40	65	399	1,59
OBR-PIR-PS12/50	50	75	409	1,63
OBR-PIR-PS12/60	60	85	419	1,67
OBR-PIR-PS12/80	80	105	439	1,75
OBR-PIR-PS12/100	100	125	459	1,83
OBR-PIR-PS12/120	120	145	479	1,91
OBR-PIR-PS12/160	160	185	519	2,07
OBR-PIR-PS12/180	180	205	539	2,15
OBR-PIR-PS12/200	200	225	559	2,23
OBR-PIR-PS12/220	220	245	579	2,31

A = 40, 50, 60, 80, 100, 120, 160, 200, 220 mm
(thickness of sandwich panel)

Attica flashing
VERTICAL SYSTEM



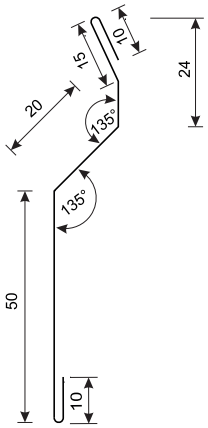
Masking flashing (mounted in foam) OBR-PIR-PS13



Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS13	105	0,42

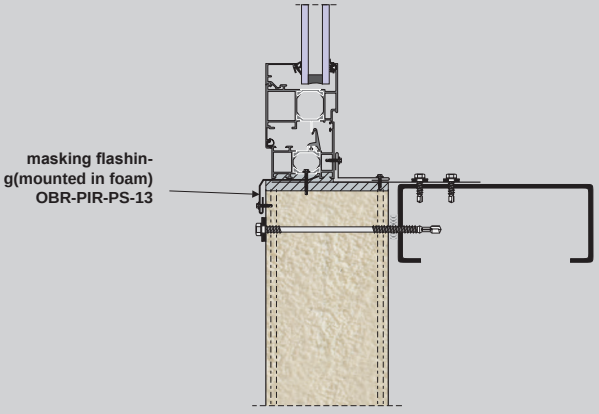
B- please specify measurement in your purchase order

Drip cup flashing OBR-PIR-PS14

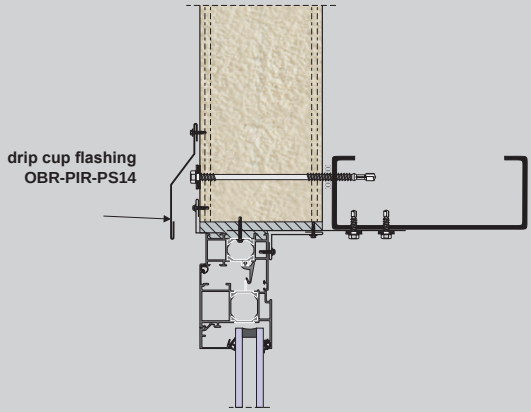


Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS14	120	0,48

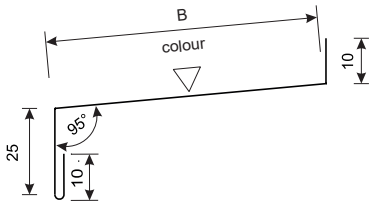
Window system – bottom
VERTICAL SYSTEM



Window system – top
VERTICAL SYSTEM



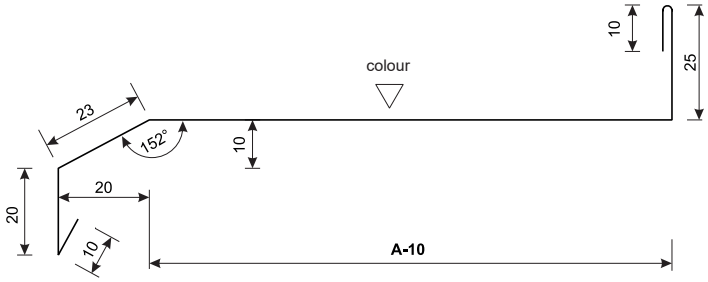
Window flashing OBR-PIR-PS15



Flashing symbol	Measurement B [mm]	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS15	-	B+45	-

B- please specify measurement in your purchase order

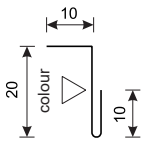
Drip cup flashing OBR-PIR-PS16



Flashing symbol	Measurement A-10 [mm]	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PS16/40	30	118	0,47
OBR-PIR-PS16/50	40	128	0,51
OBR-PIR-PS16/60	50	138	0,55
OBR-PIR-PS16/80	70	158	0,63
OBR-PIR-PS16/100	90	178	0,71
OBR-PIR-PS16/120	110	198	0,79
OBR-PIR-PS16/160	150	238	0,95
OBR-PIR-PS16/180	170	258	1,03
OBR-PIR-PS16/200	190	278	1,11
OBR-PIR-PS16/220	210	298	1,19

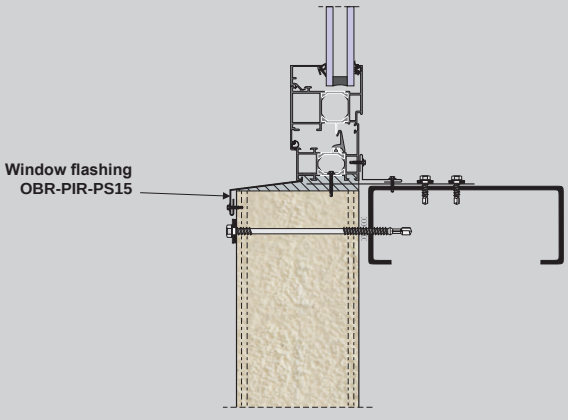
A = 40, 50, 60, 80, 100, 120, 160, 180, 200, 220 mm
(thickness of sandwich panel)

Window flashing OBR-PIR-PS17

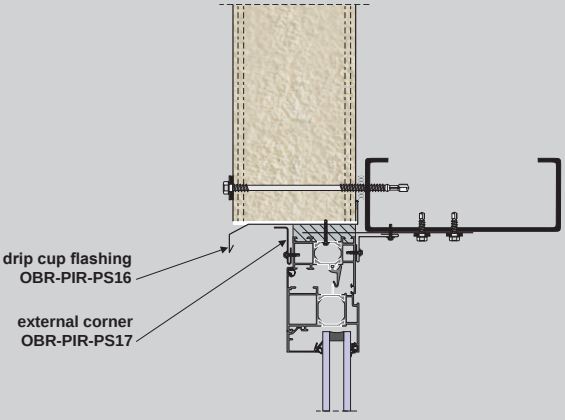


Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PS-17	40	0,16

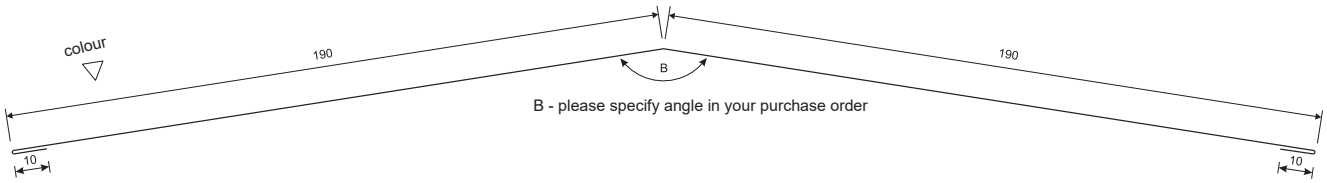
PWS panel connected with the window solution II
VERTICAL SYSTEM



PWS panel connected with the window solution II
VERTICAL SYSTEM



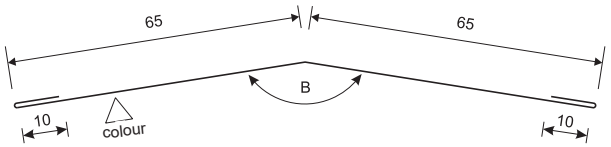
Straight ridge OBR-PIR-PD1



Flashing symbol	Angle - Bº [mm]	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD1	162	400	1,60

Bº - please specify angle in your purchase order

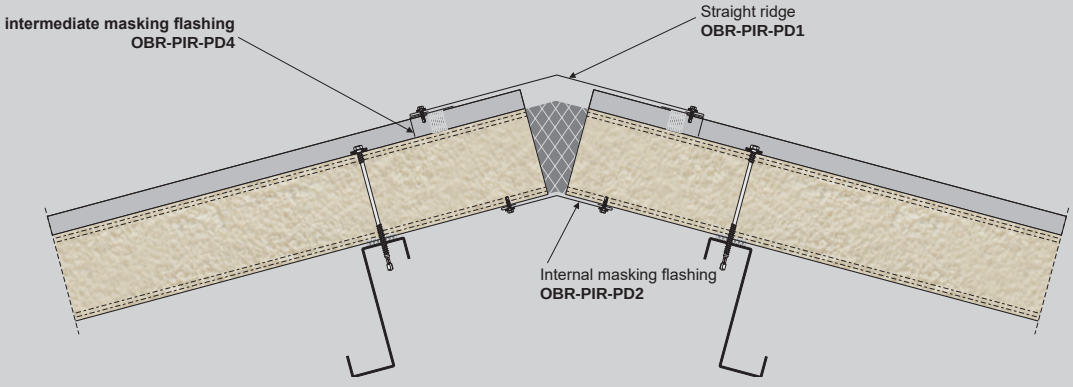
Internal masking flashing OBR-PIR-PD2



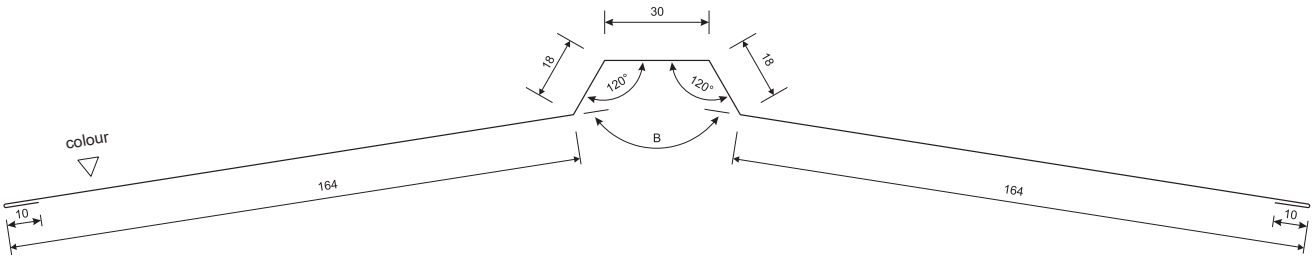
Flashing symbol	Angle- Bº [mm]	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD2	162	150	0,60

Bº -please specify angle in your purchase order

Ridge flashing



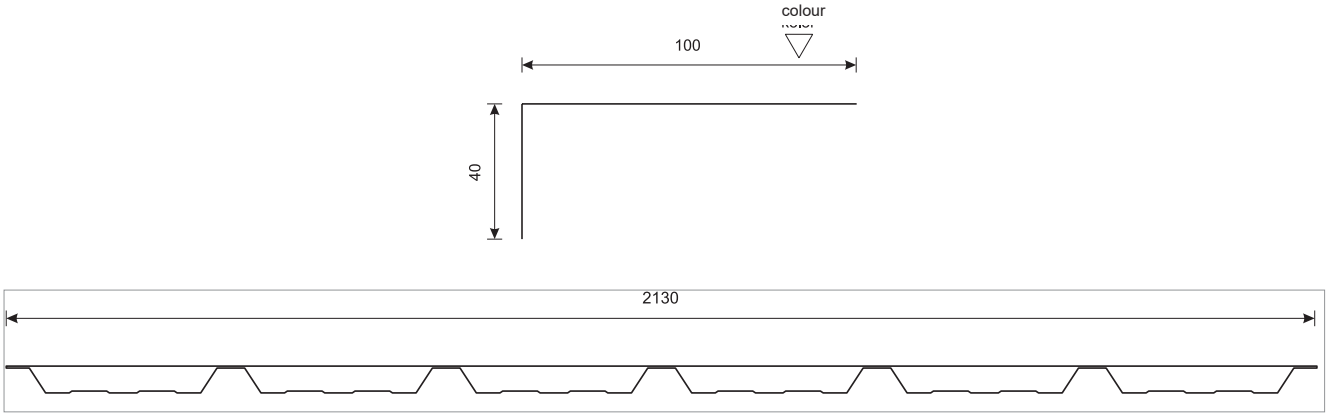
Ridge flashing OBR-PIR-PD3



Flashing symbol	Angle- Bº [mm]	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD3	162	414	1,65

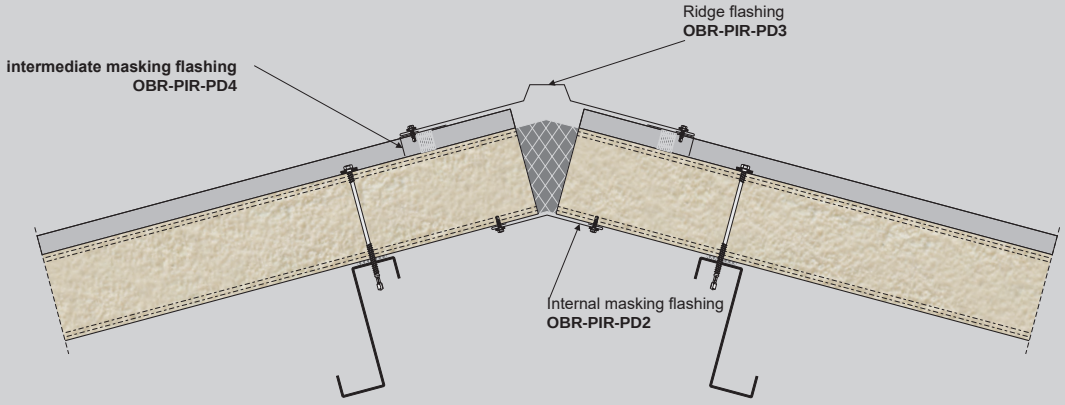
Bº - please specify angle in your purchase order

Internal masking flashing OBR-PIR-PD4

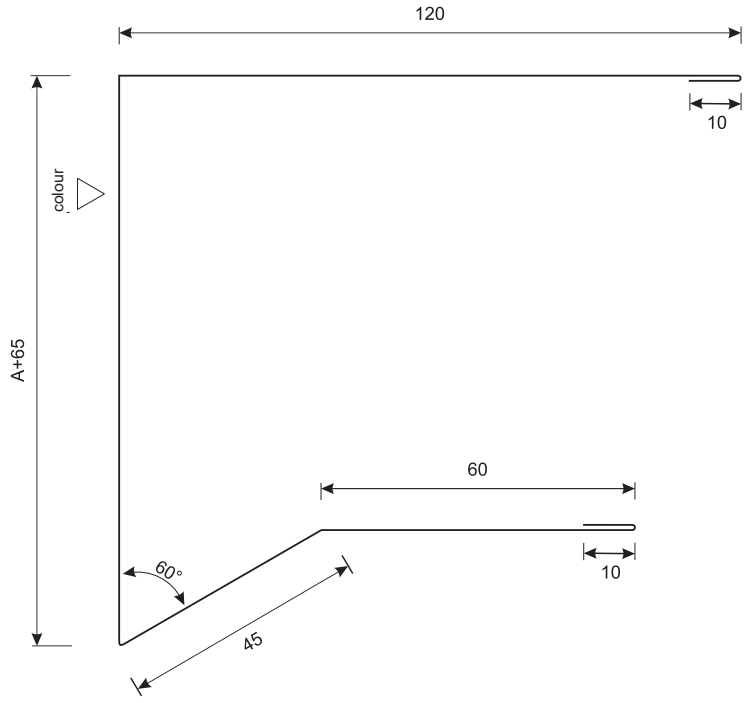


Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD4	140	0,56

Ridge flashing



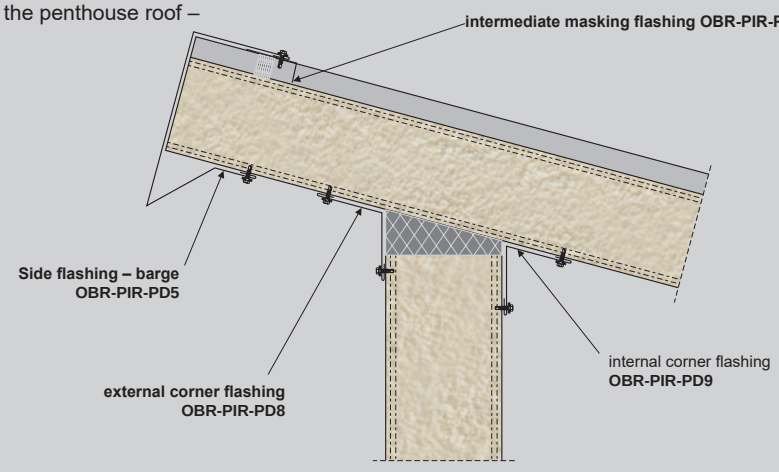
Side flashing - barge OBR-PIR-PD5



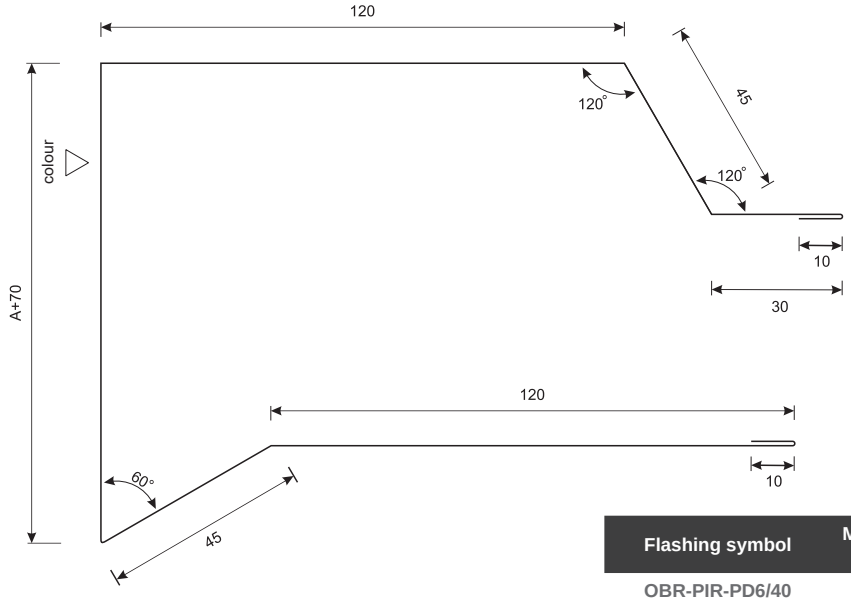
Flashing symbol	Measurement A+65 [mm]	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD5/40	105	350	1,40
OBR-PIR-PD5/60	125	370	1,48
OBR-PIR-PD5/80	145	390	1,56
OBR-PIR-PD5/100	165	410	1,64
OBR-PIR-PD5/120	185	430	1,72
OBR-PIR-PD5/160	225	470	1,88

A = 40, 60, 80, 100, 120, 160 mm
(thickness of sandwich panel)

Edge of the top of the penthouse roof – solution II

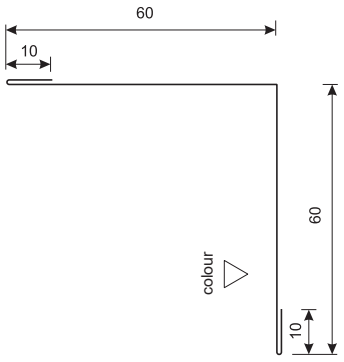


Side flashing - barge OBR-PIR-PD6



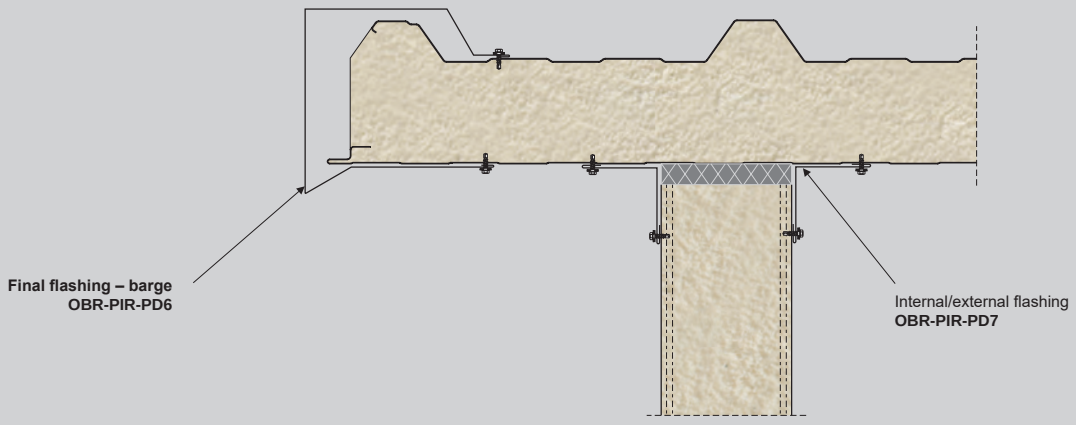
Flashing symbol	Measurement B [mm]	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD6/40	40	490	1,96
OBR-PIR-PD6/60	60	510	2,04
OBR-PIR-PD6/80	80	530	2,12
OBR-PIR-PD6/100	100	550	2,20
OBR-PIR-PD6/120	120	570	2,28

External/internal flashing OBR-PIR-PD7

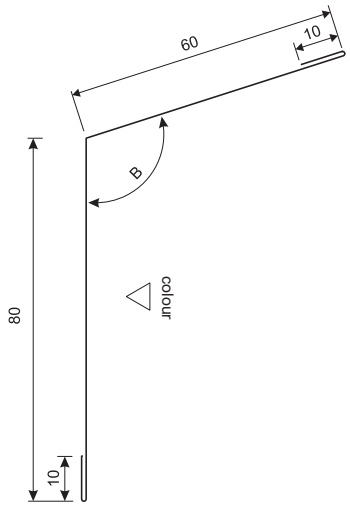


Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD7	140	0,56

Edge of the top of the roof – barge



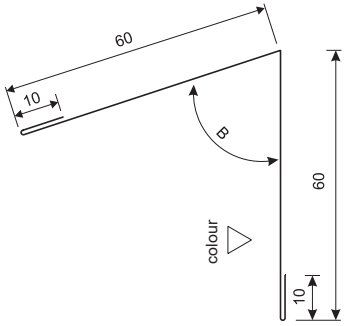
corner flashing OBR-PIR-PD8



Flashing symbol	Angle - Bº [mm]	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD8	108	160	0,64

Bº - please specify angle in your purchase order

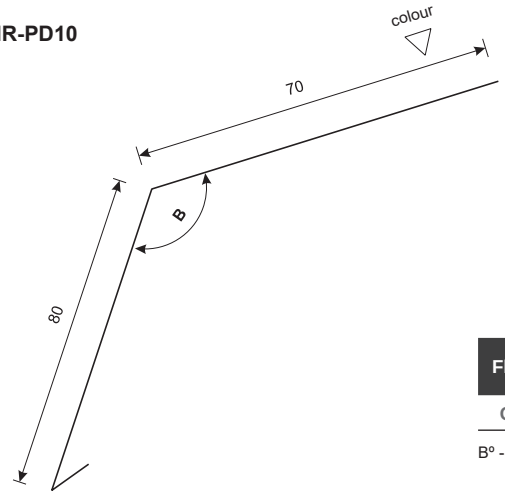
corner flashing OBR-PIR-PD9



Flashing symbol	Angle- Bº [mm]	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD9	72	140	0,56

Bº - please specify angle in your purchase order

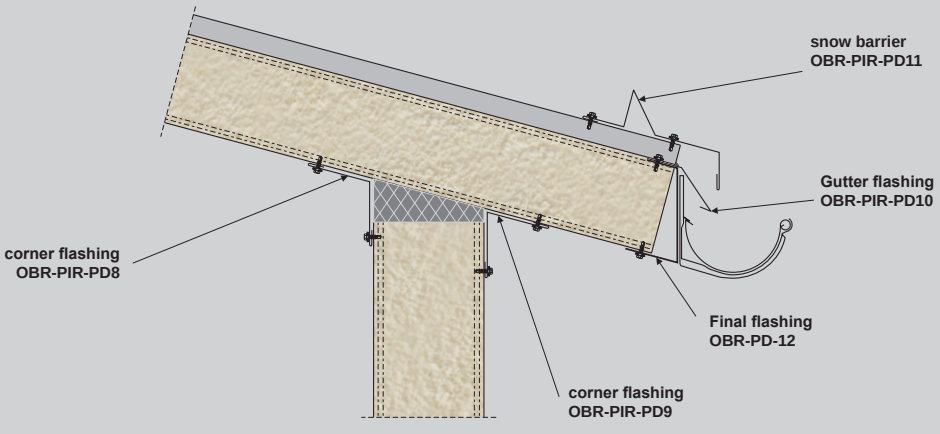
Gutter flashing OBR-PIR-PD10



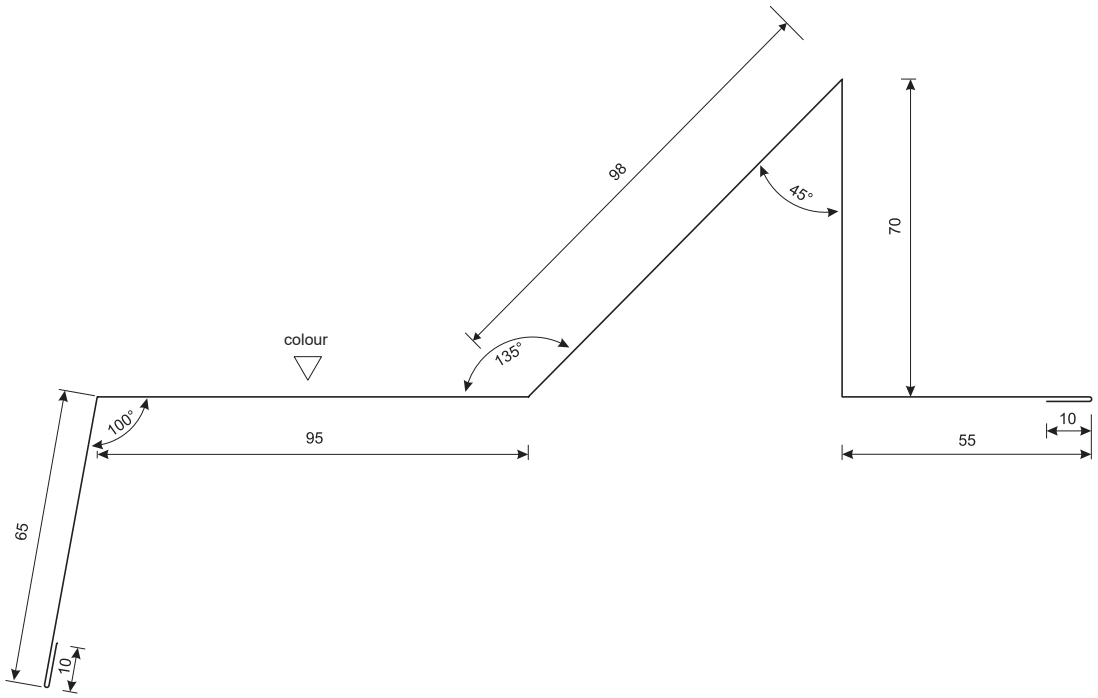
Flashing symbol	Angle- Bº [mm]	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD10	126	160	0,64

Bº - please specify angle in your purchase order

Edge of the top of the roof – mounting the gutter
- solution I

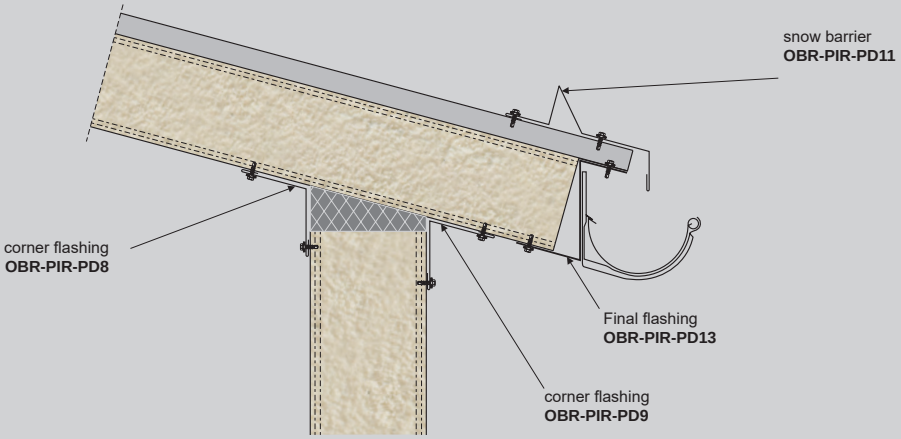


Snow barrier OBR-PIR-PD11

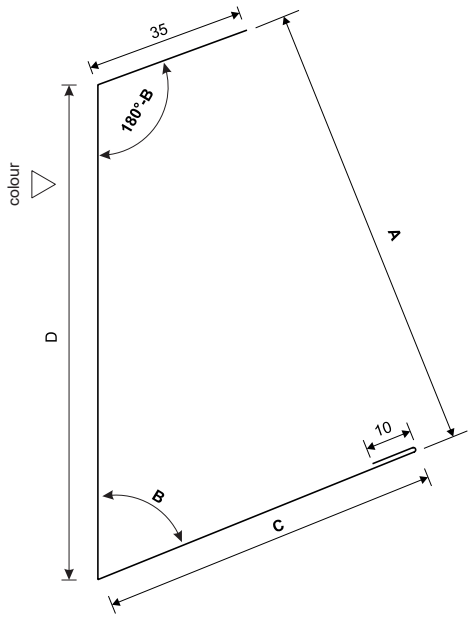


Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-PD11	403	1,61

Edge of the top of the roof – mounting the gutter – solution II



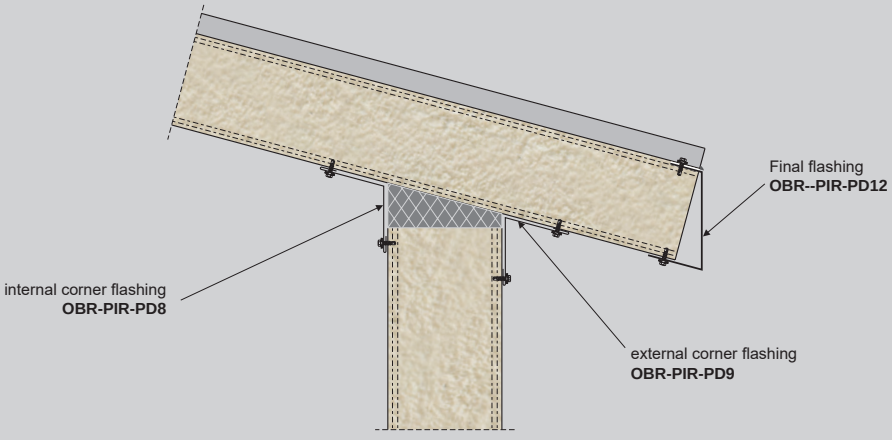
Final flashing OBR-PIR-PD12



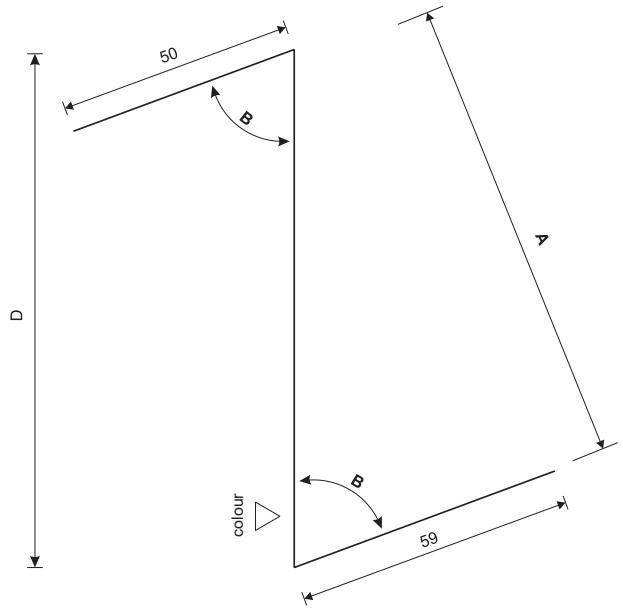
Flashing produced from sheet of thickness 1,00 mm

Bº - please specify angle in your purchase order – depends on roof slope
A, C, D - please specify measurement in your purchase

Edge of the top of the roof next to the gutter – solution I



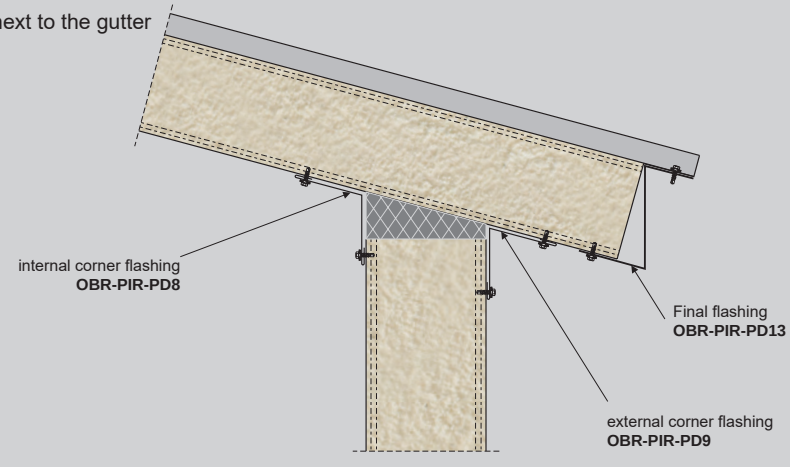
Final flashing OBR-PIR-PD13



Flashing produced from sheet of thickness 1,00 mm

Bº - please specify angle in your purchase order – depends on roof slope
A, C, D - please specify measurement in your purchase

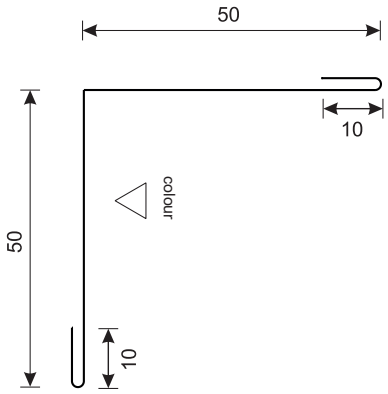
Edge of the top of the roof next to the gutter – solution II



External corner OBR-PIR-CH1

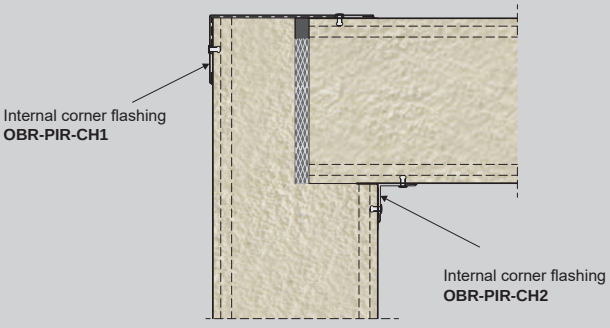
Flashing symbol	Measurement B [mm]	In expansion [mm]	Weigh 1mb [kg/m]
OBR-PIR-CH1/120	120	190	0,76
OBR-PIR-CH1/160	140	210	0,84
OBR-PIR-CH1/180	150	220	0,88
OBR-PIR-CH1/200	160	230	0,92
OBR-PIR-CH1/220	180	250	1,00

Internal masking flashing OBR-PIR-CH2

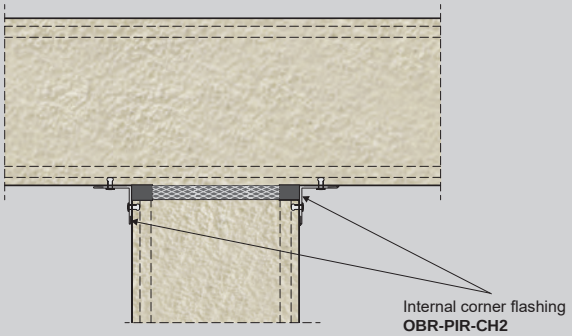


Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-CH2	120	0,48

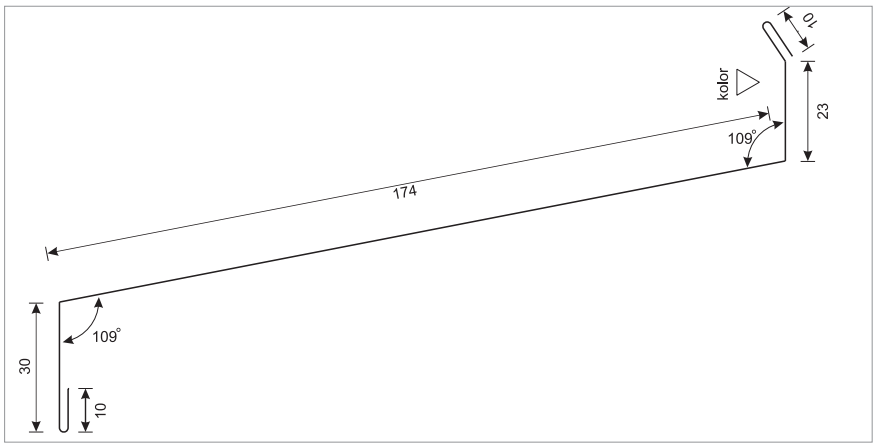
Connecting external wall with the ceiling



Connecting internal wall with the ceiling

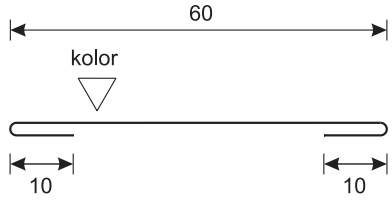


Drip cup OBR-PIR-CH3



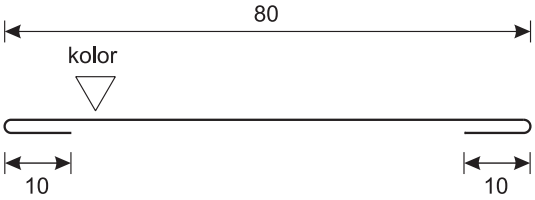
Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-CH3	247	0,99

masking flashing OBR-PIR-CH4



Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-CH4	80	0,32

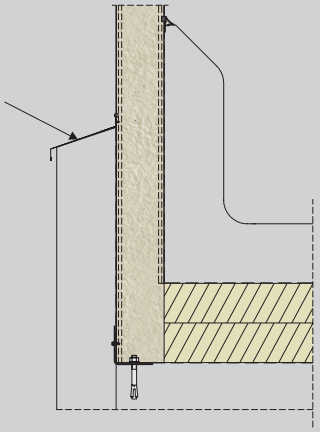
masking flashing OBR-PIR-CH4A



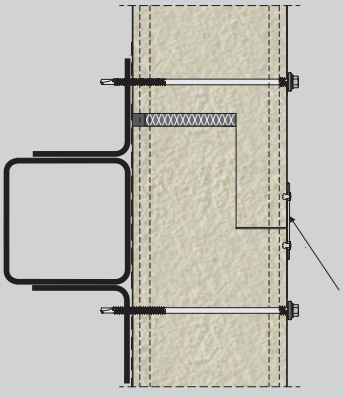
Flashing symbol	In section [mm]	Weigh 1mb [kg/m]
OBR-PIR-CH4A	100	0,4

Connecting external wall with the floor and concrete pedestal

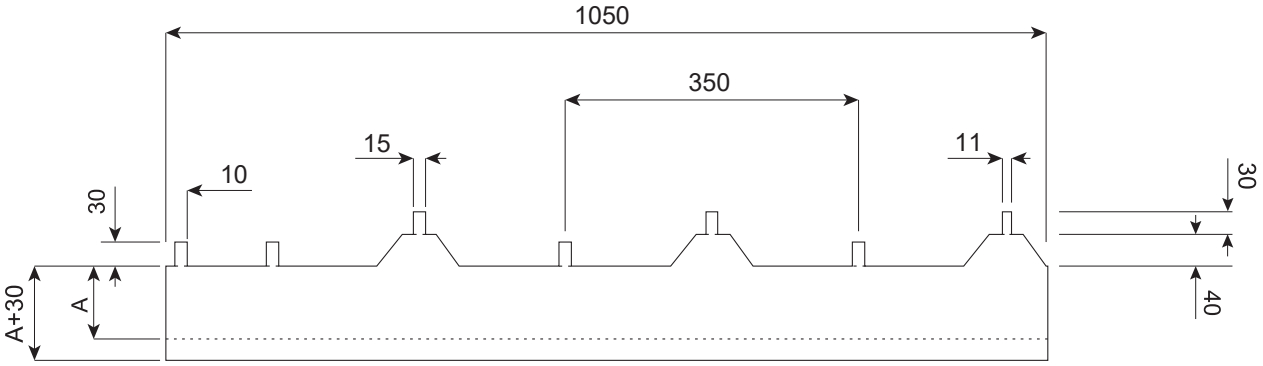
drip cup OBR-PIR-CH3



connecting panels in length

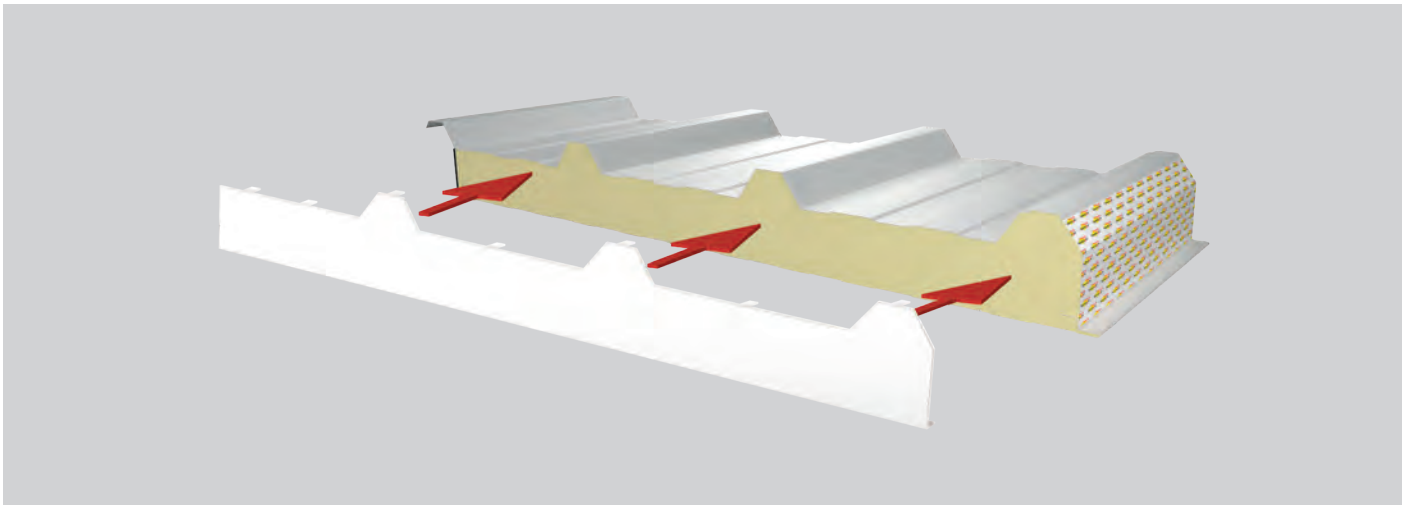


masking flashings „FRONT COVER”



The „front cover” masking flashing is intended for the PWD-PIR roof sandwich panel and is fixed to the face of the panel. The A dimension depends on the board thickness. The dashed lines mark the places where the flashing should be bent at an angle of 90°.

symbol/panel thickness [mm]	Measurement A [mm]
PWD-PIR 40	40
PWD-PIR 60	60
PWD-PIR 80	80
PWD-PIR 100	100
PWD-PIR 120	120
PWD-PIR 160	160



The producer recommends getting acquainted with assembly techniques, included in the hereby catalogues, however, these are only producer's suggestions. The catalogue is not technical documentation. The responsibility for employing specific techniques regarding the cladding or roofing made of PIRTECH panels is the designer's. The catalogue of technical solutions is not the basis for placing claims with regard to the product quality requirements.

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