



BP2.EU

SANDWICH PANELS



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ABOUT US





HISTORY

BLACHPROFIL 2° is a capital group established in 1995 in Cracow. At the beginning, the company focused on selling roofing products at a sales shop. However, from the very beginning, our goal was the production and continuous development in order to meet new trends and growing requirements of aware clients. Within a few years, we have created a machinery park equipped with modern technological lines that are being continuously developed and modernized. Employment at the company grew proportionally to its development and so starting with a few people it has reached a staffing level of 300 qualified employees. Continuous development and market expansion spanning all of Europe has caused that our fleet has grown to 130 vehicles.

S.C IMPRO S. R. L.

New directions of development and searching for attractive sales markets led to the establishment of S.C. IMPRO S. R. L. The registered office of the Romanian company belonging to the capital group of BLACHPROFIL 2° looks almost identical as the original logistics centre in Grojec near Cracow. S.C. IMPRO S. R. L. in Cluj-Napoca has become an independent production centre related to the Polish company by means of the logistics and distribution network.

SANDWICH PANELS - TIMISOARA

As an international production company having its own logistics and distribution network in Poland and Central Europe, at the turn of 2017 and 2018, we accepted new challenges and took over the MARCEGAGLIA production plant manufacturing sandwich panels in Timisoara. The completely functional plant merged with S.C. IMPRO S. R. L. and enriched our offer with sandwich panels.

In 2017, Adam Małysz, winner of four Olympic medals and six world championships, unquestionable master of ski jumping, who is also a master of roofing, became a brand ambassador for BLACHPROFIL 2°. Later the same year, BLACHPROFIL 2° created the first in Poland Academy of Champions, i.e. a set of stationary and mobile trainings that support roofers. We think that as a manufacturer of complex roofings we are obliged to take an active part in the training process and specialization of roofers working in our sector. Particular attention is paid to teaching the youth the profession and so BLACHPROFIL 2° has become a partner of the renowned program PSD Zawód Dekarz (Polish Roofers Association) that supports young roofers in learning this difficult and precise profession.

The company supports a healthy way of life. We have established BP2 TEAM that supports competitors of cross-fit which is a popular discipline among our crew. BLACHPROFIL 2° is also a sponsor of Slovakian hockey team HC KOSICE.

The constantly changing world and market makes that we are not stopping at developing and searching for new technologies. This all about providing our clients with the best quality there is.

IDEA

BLACHPROFIL 2° is based on four pillars that guarantee the company stability and development. The most important is PEOPLE.

Mutual trust, respect and commitment have made some of us work together for over 20 years! Leading values and continuously growing number of employees make BLACHPROFIL 2° a strong team!

An indispensable element of team work is the second pillar of our company - RELATIONS. Good relations with clients, suppliers and partners are built on an open and first and foremost fair communication. What is important to us is reliability and responsibility, and thus we are proud to have gained trust of over 1500 active clients.

Quality and efficient service are guaranteed by the third pillar of BLACHPROFIL 2°, i.e. TECHNOLOGY AND LOGISTICS. On the one hand, this is robotization using modern production plants and, on the other, automation of the internal company processes. The EDI format allows for exchanging financial documents with suppliers without human interaction and piles of paper; the eProfile is used by our receivers as a complex customer service system.

The fourth pillar of BLACHPROFIL 2° is QUALITY. Innovations improve standards; therefore, we have created our own professional quality control laboratory. Because of the laboratory, except for the metallurgical attestations received from our suppliers that guarantee a specified level of delivered raw materials, we are able to verify their quality. Our specialists carefully inspect numerous material and mechanical parameters, such as scratching resistance, coating adhesion or susceptibility to deformation. Tests performed in a salt spray chamber, imitating an accelerated impact of external factors on materials and profiles produced by us, allow for simulating material behaviour within a period of 30 years in just one month. All these processes give us full control over the quality of products delivered by us.

SANDWICH PANELS

Dynamic development of BLACHPROFIL 2° in December 2017 led to the takeover of MARCEGAGLIA's fully operational plant in Timisoara manufacturing sandwich panels. Therefore, we have enriched our offer with this modern and unusually light-construction product with a wide range of applications and high cost efficiency.

Sandwich panels are used in the investment construction engineering, especially where cost and construction time are really important. Construction time is reduced by 50-60% in relation to traditional solutions. Due to low weight, transportation of sandwich panels does not entail the use of heavy duty transportation means. A number of structural benefits significantly improve the construction process:

- quick and easy installation;
- comparably easy disassembly;
- minimum quantity of finishing works;
- perfect effect of thermal insulation performance of division walls;
- energy efficiency.

Another advantage is an option to install sandwich panels at low temperatures, thus not being weather-dependent so that the works can be carried out even during the winter season.

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CONSTRUCTION OF SANDWICH PANELS



Construction of sandwich panels

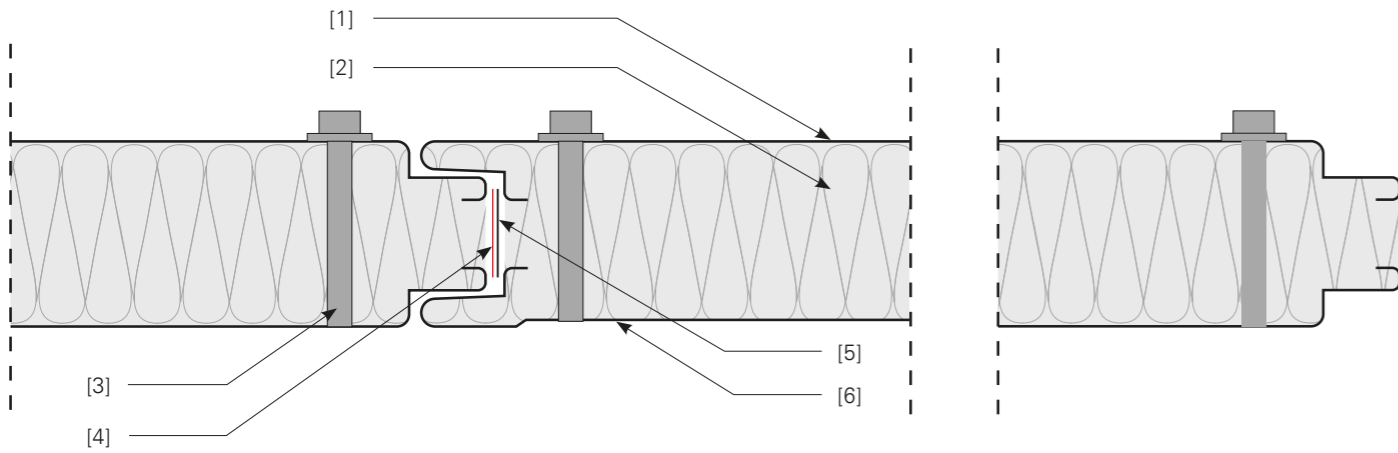
General information

Sandwich panels are composite prefabricated elements that consist of three layers: external and internal cladding and the structural and insulating core. The core of the sandwich panel is responsible for thermal and acoustic insulating power as well as for fire-resistance and the facing serves as a structure that guarantees high mechanical strength. The BLACHPROFIL 2® offer includes sandwich panels with three types of the core: CorePUR, CorePIR, CoreWOOL.

Connecting sandwich panels

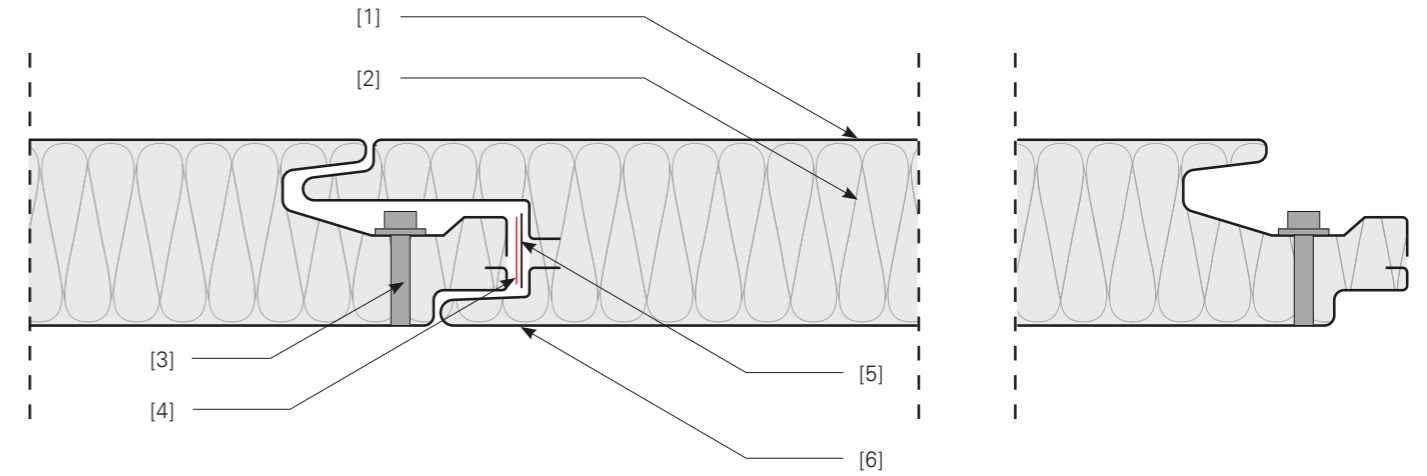
Special design of the sandwich panel's joint ensures tightness and minimizes the loss of thermal insulation deficits at the connections. Thus, the longitudinal joints (i.e. "locks") in BLACHPROFIL 2® sandwich panels are conical. Due to this special design, they can be characterized by better water and fire resistance as well as air-tightness. Such design of the joints improves the load-bearing parameters and rigidity of the panel and significantly facilitates and accelerates installation, minimizing the risk of damage at the same time.

WALL SANDWICH PANEL WITH VISIBLE FASTENING



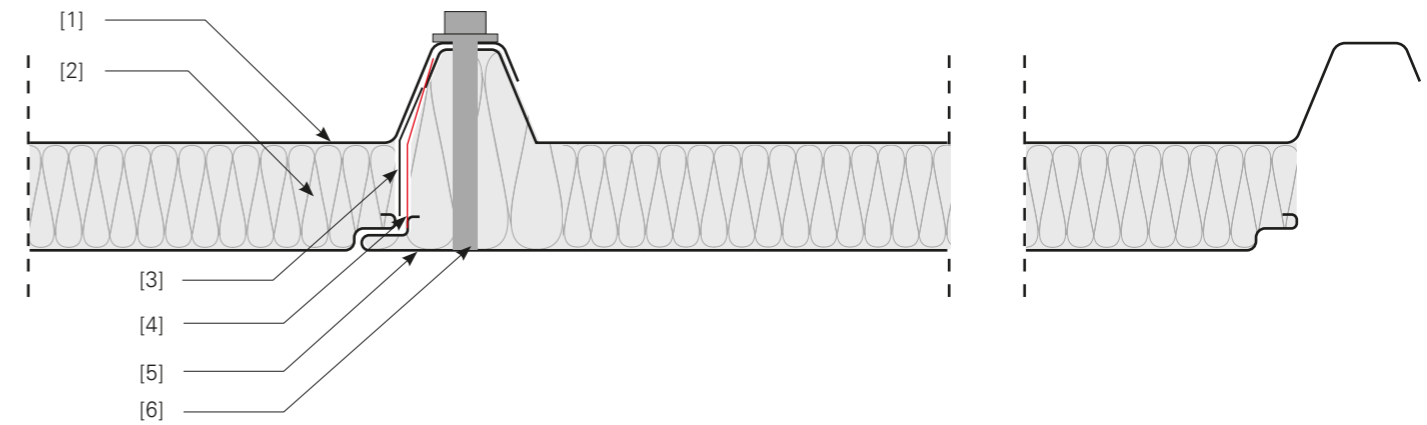
- [1] external facing
- [2] insulation (PUR/PIR/wool)
- [3] self-drilling fastener
- [4] tape
- [5] seal
- [6] steel internal facing

WALL SANDWICH PANEL WITH HIDDEN FASTENING



- [1] external facing
- [2] insulation (PUR/PIR)
- [3] self-drilling fastener
- [4] tape
- [5] seal
- [6] steel internal facing

ROOF SANDWICH PANEL



- [1] external facing
- [2] insulation (PUR/PIR/wool)
- [3] seal
- [4] tape
- [5] internal facing
- [6] panels fastener

3



SANDWICH PANELS SPECIFICATIONS

INTRODUCTION

Sandwich panels are prefabricated composite elements that consist of three layers: external and internal facings and the structural and insulating core. The core of sandwich panels is responsible for thermal and acoustic insulation as well as for fire resistance, and the facings serve as a structure that guarantees high mechanical strength. The BLACHPROFIL 2® offer includes sandwich panels with three types of the core: CorePUR, CorePIR, CoreWOOL.



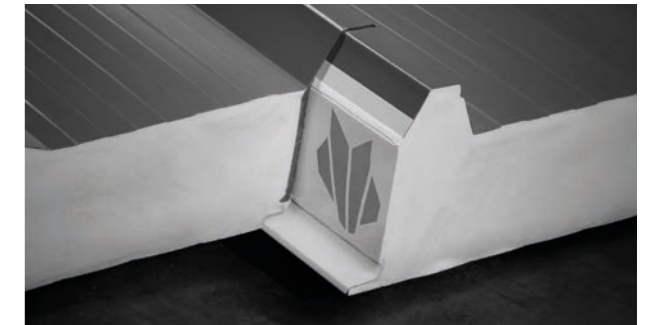
INSULATIONS

The sandwich panel core determines acoustic and thermal insulation and fire resistance. Quality of the core material and proper design of joints geometry that ensure tightness are responsible for the highest technical parameters. The BLACHPROFIL 2® offer includes sandwich panels with three types of the core:

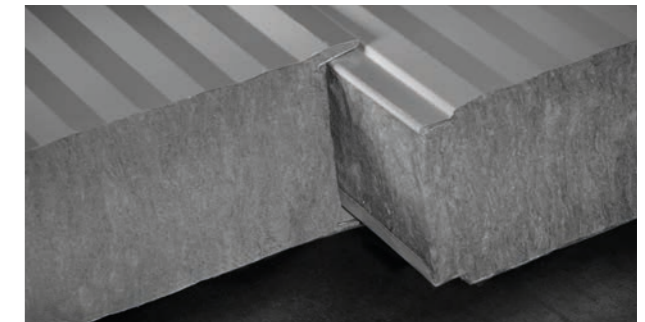
PUR – polyurethane foam with a density of 40 ± 3 [kg/m³]. Due to a high content of many closed cells, it provides a great vapour barrier, thermal insulation and anti-mould properties. The foam can be characterized by exceptional durability and maintains long-term mechanical properties.



PIR – polyisocyanurate foam of higher isocyanate content. It can be characterized by significantly higher fire resistance and maintains full thermal insulation properties.
Density: 42 ± 3 [kg/m³]



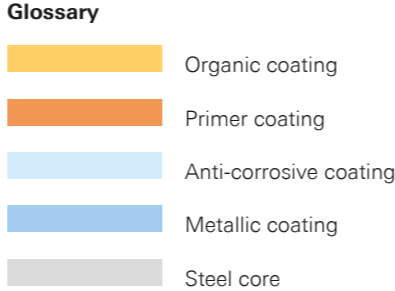
Wool - hard, fire-retardant, rock-based mineral wool with a density of 100 ± 10 [kg/m³]. The greatest advantage of it is its fire resistance incomparable with other materials as well as high rigidity and mechanical strength owing to basalt fibres laid perpendicular to the facings.



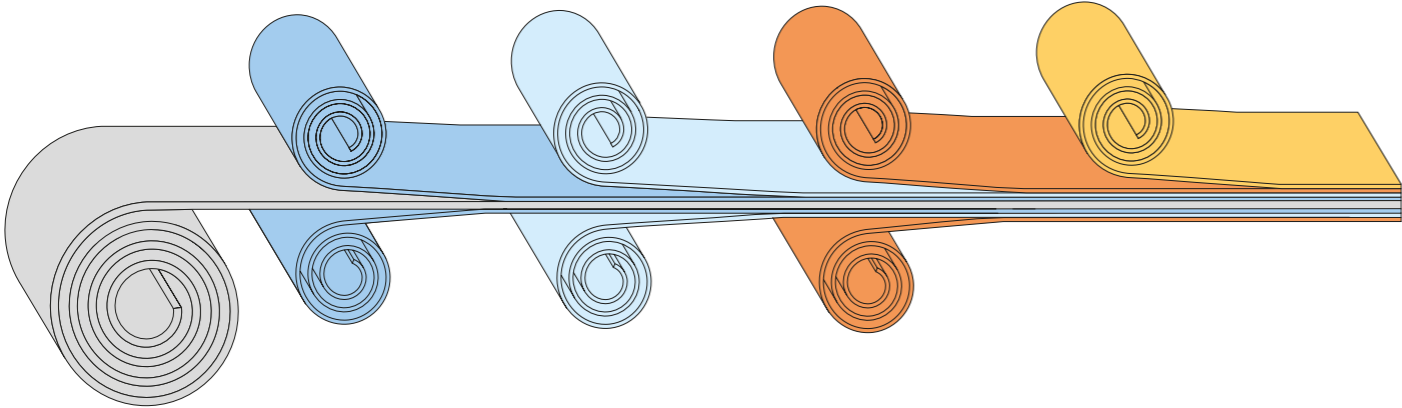
Construction of sandwich panels

STEEL FACINGS

Steel facings
 External parts of sandwich panels consist of two facings made of 0.4 - 0.7 mm thick galvanized steel sheet. Moreover, they are coated with protective organic coatings that ensure resistance to aggressive external factors, according to their purpose and corrosion class. Normally, BLACHPROFIL 2® steel facings are coated with a polyester coating but there is an option to order coatings from beyond the standard offer - where panels may come into contact with food or where better anti-corrosion or UV protection is needed. We also produce panels with fibre-glass facings. Moreover, we also facilitate perforation of all our sandwich panels, both wall and roof panels.



Coated sheet cross-section

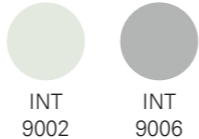


COLOURS

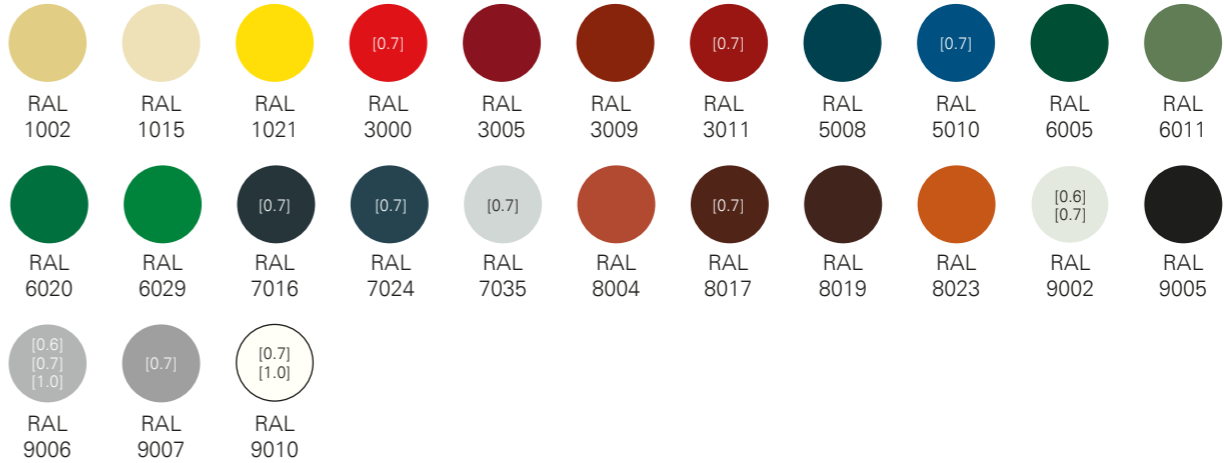


Non-standard colours and coatings, other than the ones in the presented range, are also available upon request.

POLYESTER Interior [INT]



POLYESTER Standard [RAL]



HERCULIT® [HC]



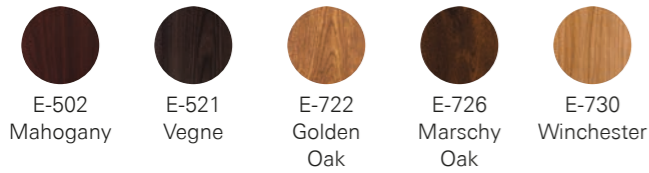
COLORCOAT HPS200 Ultra® [HPS]



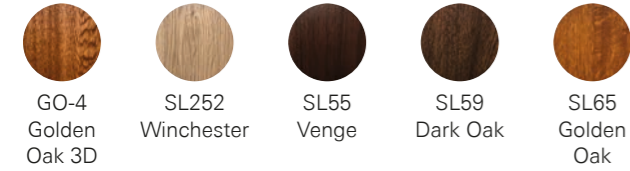
	Standard sheet thickness is 0.5 mm
[0.6]	Material also available with a thickness of 0.6mm
[0.7]	Material also available with a thickness of 0.7mm
[1.0]	Material also available with a thickness of 1.0mm

Construction of sandwich panels

Woodgrain veneered steel sheets DECOR Coat [PVCF-DC]



Woodgrain coated steel sheets MULTILAYER [SP35/MULTI]



INOX



ENVIRONMENTAL CLASSIFICATION

The precondition for correctly functioning roofing made of sandwich panels is the proper selection of the material according to the environmental conditions the roofing will be used under. Therefore, correct recognition of the environmental specifications is an important process that should cover an analysis of a series of factors. The most important factors are as follows: humidity, salinity (especially in seaside areas), presence of active substances. In case of the internal surfaces, the degree of the environment aggressiveness is mostly related to the type of operations performed in the facility.

The list below presents the classification of internal and external environments along with exemplary coating applications.

Internal environment classification according to EN 10169	Environment description	Examples	INT	RAL	PVDF25	HDP 35	PVDF35	HC	HDX	HPS200	PUR	PRISMA	INOX	VR-Fiberglass
A1-A2	Non-aggressive environment of medium air humidity, no condensation of water steam, walls are only subject to regular maintenance	Office buildings, warehouses of packaged dry products, warehouses of frozen ready products, sports halls, supermarkets	■	■	■	■	■	■	■	■	■	■	■	■
A3	Non-aggressive environment with high humidity with occasionally occurring water steam condensation, walls are subject to intensive cleaning	Industrial halls with dry production processes, warehouses with high humidity, e.g. for plants	□	■	■	■	■	■	■	■	■	■	■	■
A4	Low-aggressive environment with high humidity and frequent condensation of water steam or aggressive environment with low humidity and without condensation of water steam, walls are subject to intensive cleaning	Industrial halls with wet production processes, swimming pools, production halls with food processing lines	□	□	□	□	■	■	■	■	■	■	■	■
A5	Aggressive environment with high humidity and frequent or even permanent condensation of water steam, walls are subject to intensive cleaning	Waste-sorting plants, sewage treatment plants, waste incinerators, seafood processing plants, printing houses, metal chemical processing plants, steelworks	□	□	□	□	□	■	■	■	■	■	■	■
External environment classification according to EN 10169	Environment description	Examples	INT	RAL	PVDF25	HDP-HDS	PVDF35	HC	HDX	HPS200	PUR	PRISMA	INOX	VR-Fiberglass
C1	Environment without contamination		□	■	■	■	■	■	■	■	■	■	■	□
C2	Low degree of contamination, low SO ₂ content		□	■	■	■	■	■	■	■	■	■	■	□
C3	Medium degree of contamination and low degree of salinity		□	■	■	■	■	■	■	■	■	■	■	□
C4	Moderate degree of salinity and contamination (area within 10 - 20 km of the coast), high SO ₂ content		□	□	□	■	■	■	■	■	■	■	■	□
C5	Environment with high humidity and aggressive atmosphere, seaside areas lying up to 10km of the coast		□	□	□	□	□	■	■	■	■	■	■	□
UV resistance category			INT	RAL	PVDF25	HDP-HDS	PVDF35	HC	HDX	HPS200	PUR	PRISMA	INOX	VR-Fiberglass
Ruv1	Very low degree of resistance		□	■	■	■	■	■	■	■	■	■	■	□
Ruv2	Low degree of resistance - presence of discolouring and loss of gloss		□	■	■	■	■	■	■	■	■	■	■	□
Ruv3	Moderate degree of resistance - moderate discolouring and change of gloss		□	□	□	□	■	■	■	■	■	■	■	□
Ruv4	High resistance, low degree of discolouring and change of gloss		□	□	□	□	□	■	■	■	■	■	■	□

Guarantees are set individually for a given investment.

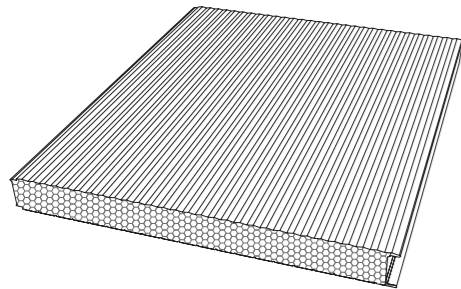
4

PRODUCTION PROGRAM



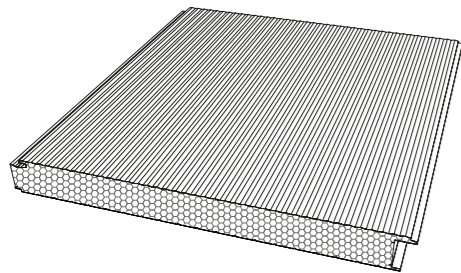
Production program

WALL PANELS



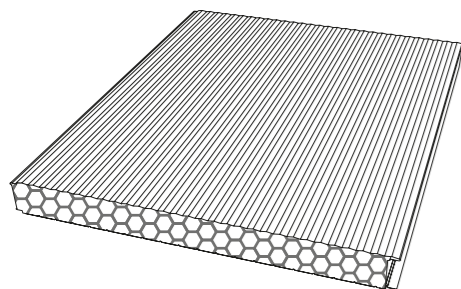
Wall sandwich panel with visible fastening **CORE^{PIR} / CORE^{PIR}**

Code	Profile	Available thickness [mm]
HPP PSD	Wave / Ribs	CORE ^{PIR} - 25 / 40 / 50 / 60 / 80 / 100 / 120 / 150
HPP PVS	Wave / Fiberglass	CORE ^{PIR} - 50 / 60 / 80 / 100 / 120 / 150
HPP PKS	Wave / Bituminized felt	
HPP PSL	Wave / Smooth*	



Wall sandwich panel with hidden fastening **CORE^{PIR} / CORE^{PIR}**

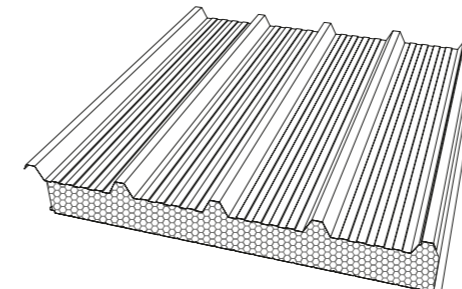
Code	Profile	Available thickness [mm]
HPP PSF	Wave / Ribs	CORE ^{PIR} - 40 / 60 / 80 / 100 / 120 / 150
HPP PFL	Wave / Smooth*	



Wall sandwich panel with mineral wool and visible fastening **CORE^{WOOL}**

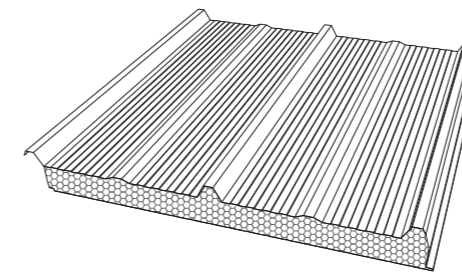
Code	Profile	Available thickness [mm]
HPP MDD	Wave / Ribs	60 / 80 / 100 / 120 / 150
HPP FDD	Wave / Ribs perforated	
HPP MDL	Wave / Smooth*	

ROOF PANELS



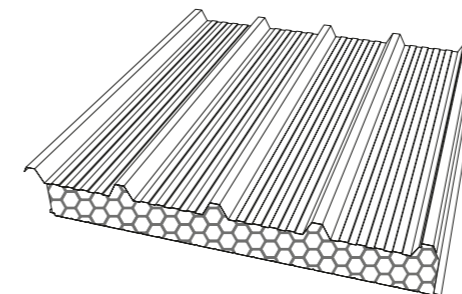
Roof sandwich panel **CORE^{PIR} / CORE^{PIR}**

Code	Profile	Available thickness [mm]
HPT TD5	Trapeze T-40 / Ribs	CORE ^{PIR} - 30 / 40 / 50 / 60 / 80 / 100 / 120
HPP TL5	Trapeze T-40 / Smooth*	
HPP TK5 VR	Trapeze T-40 / Fiberglass	



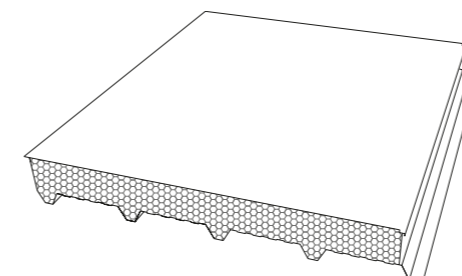
Roof sandwich panel **CORE^{PIR} / CORE^{PIR}**

Code	Profile	Available thickness [mm]
HPT TD3	Trapeze T-40 / Ribs	CORE ^{PIR} - 40 / 50 / 60 / 80 / 100 / 120
HPP TL3	Trapeze T-40 / Smooth*	
HPP TK3 VR	Trapeze T-40 / Fiberglass	



Roof sandwich panel with mineral wool **CORE^{WOOL}**

Code	Profile	Available thickness [mm]
HPT MTD	Trapeze T-40 / Ribs	60 / 80 / 100 / 120 / 150
HPT FTD	Trapeze T-40 / Ribs perforated	
HPP MLT	Trapeze T-40 / Smooth*	



Reversed roof sandwich panel **CORE^{PIR}**

Code	Profile	Available thickness [mm]
HPT TK5 CB	Bituminized felt / Trapeze T-40	30 / 40 / 50 / 60 / 80 / 100

*Smooth profile may include slight waviness of the surface - facing minimum thickness is 0.5mm.

5

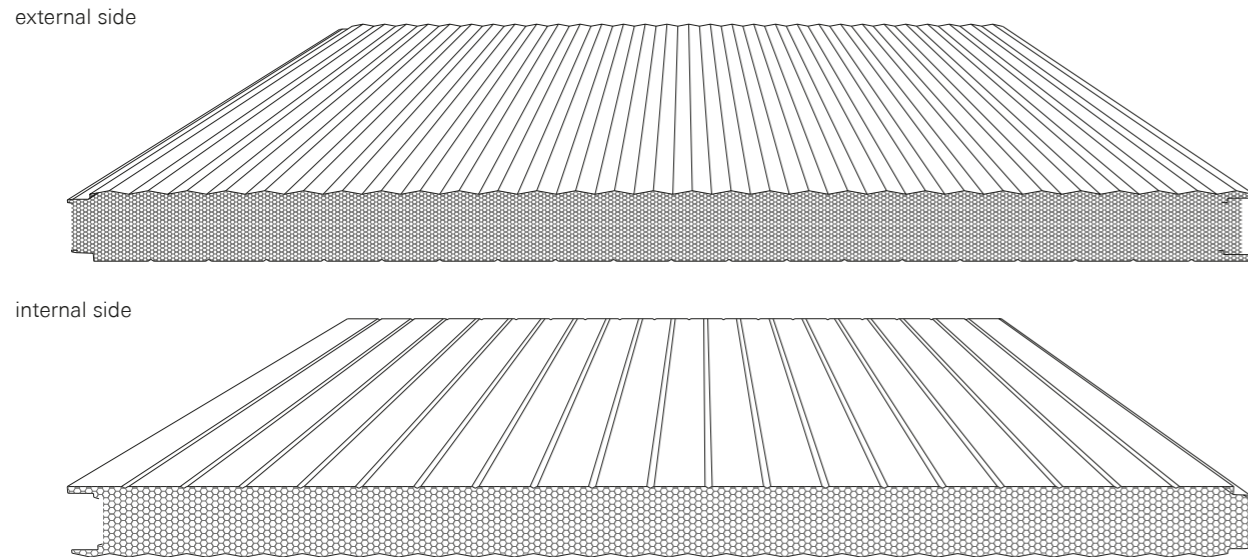
WALL SANDWICH PANELS



Wall sandwich panels

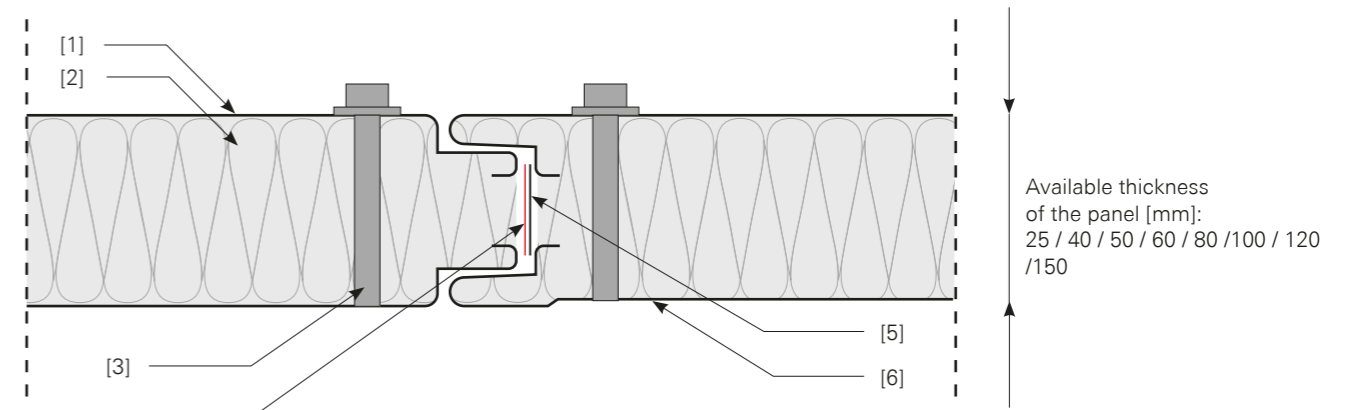
HPP PSD Wall sandwich panel PUR / PIR with visible fastening

Wall sandwich panels PUR/PIR with visible fastening consist of a structural insulation core and two steel facings. The facings are made of a 0.4-0.7 mm thick steel sheet and are coated with a polyester coating and protective organic coatings. The core of the panel is made of polyurethane (PUR) and polyisocyanurate (PIR) foam of with overall average density of 40/42 ±3 kg/m³. The panels have high fire-resistance and insulation properties and high durability. They are equipped with properly profiled joints locks that allow for fast and simple installation on any type of structure.



PUR panel thickness [mm]	25	40	50	60	80	100	120	150
PIR panel thickness [mm]	-	-	50	60	80	100	120	150
Weight [kg] 1/m ²	9,31	9,88	10,26	10,64	11,40	12,16	12,92	14,12
Core	PUR/PIR							
Effective width	1000 mm							
Total width	1018 mm							
Min. plate length	2,50 m							
Max. plate length	13,50 m							
Sheet thickness out./ inn.	0,4-0,7 / 0,4-0,7 mm							
Factor U [W/m ² k]	0,78	0,5	0,41	0,34	0,26	0,21	0,17	
Profiling type external/internal CORE ^{PUR}	PSD – Wave / Ribs							
Profiling type external/internal. CORE ^{PIR}	PVS – Fala/Fiberglass							
	PKS – Wave / Bituminized felt							
	PSL– Wave / Smooth*							
Coatings	RAL, HC, HPS200							
Accessories	fastening system, gaskets, flashings							

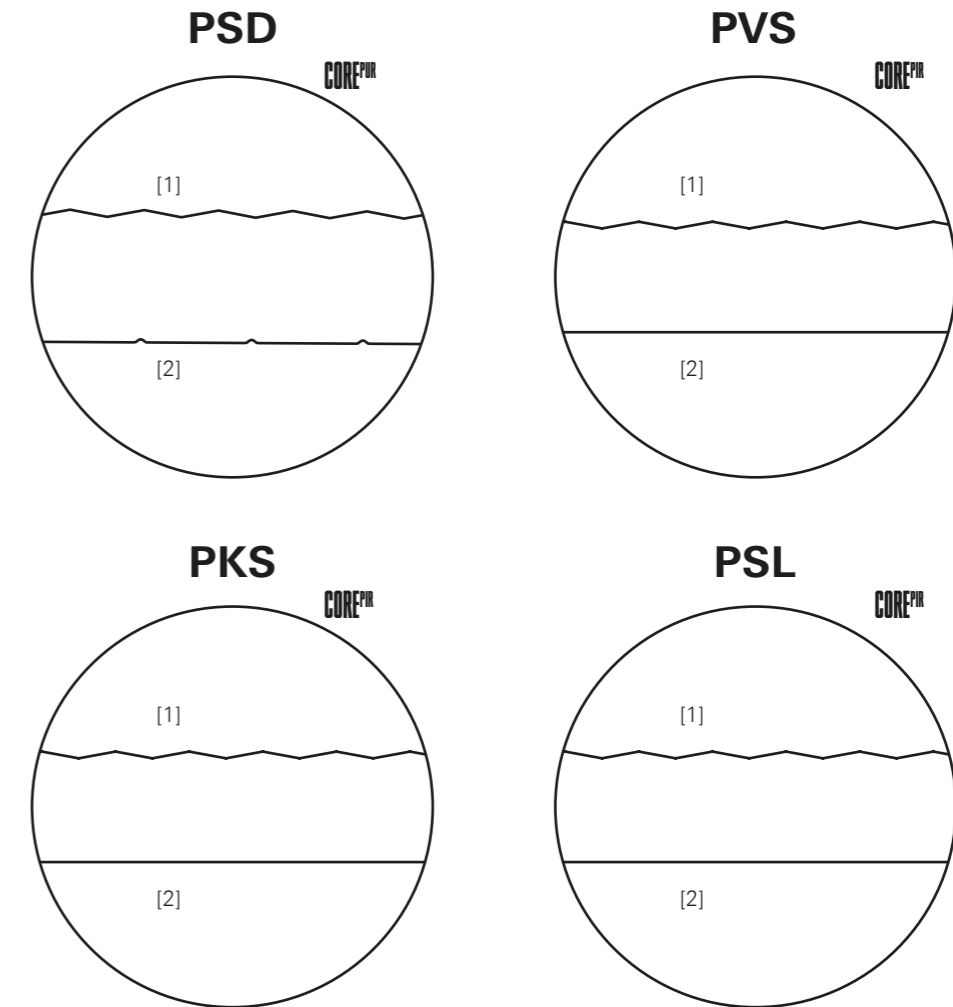
*Smooth profile may include slight waviness of the surface - facing minimum thickness is 0.5 mm.



Available thickness of the panel [mm]:
25 / 40 / 50 / 60 / 80 / 100 / 120 / 150

- [1] external steel facing
- [2] insulation (PUR/PIR)
- [3] self-drilling fastener
- [4] tape
- [5] seal
- [6] internal steel facing

PROFILING TYPES



- [1] external side
- [2] internal side

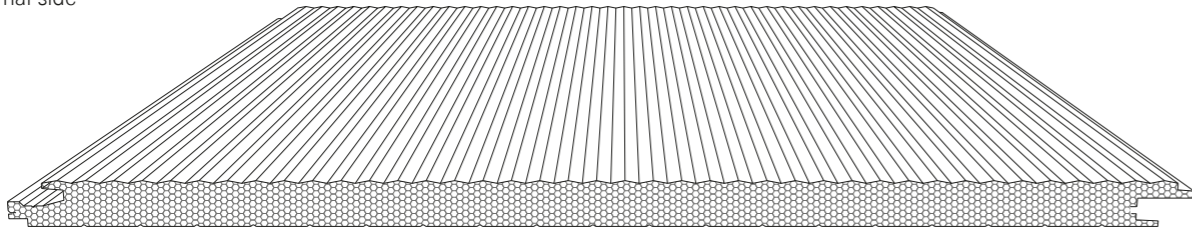
Wall sandwich panels

HPP PSF Wall sandwich panel PUR / PIR with hidden fastening

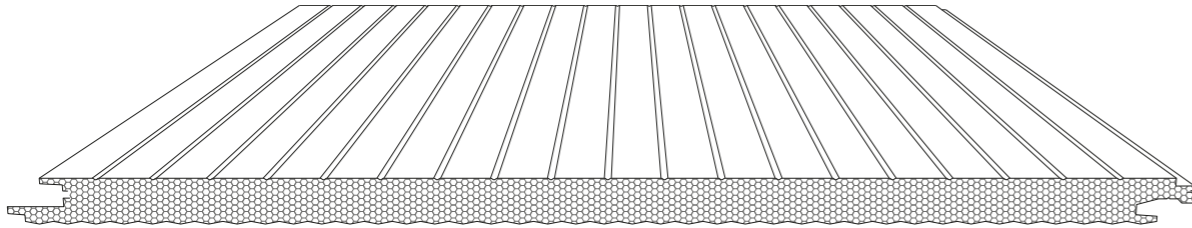
Wall sandwich panels PUR/PIR with hidden fastening consist of a structural insulating core and two steel facings. The facings are made of a 0.4-0.7 mm thick steel sheet and are coated with a polyester coating and protective organic coatings. The core of the panels is made of polyurethane (PUR) and polyisocyanurate (PIR) foam of total with overall average density of 40/42 ±3 kg/m³. The panels have high fire-resistance and insulation properties and high durability. Specially formed joints allow for hiding the fasteners, thus providing great facade aesthetics.

CORE^{PUR}
CORE^{PIR}

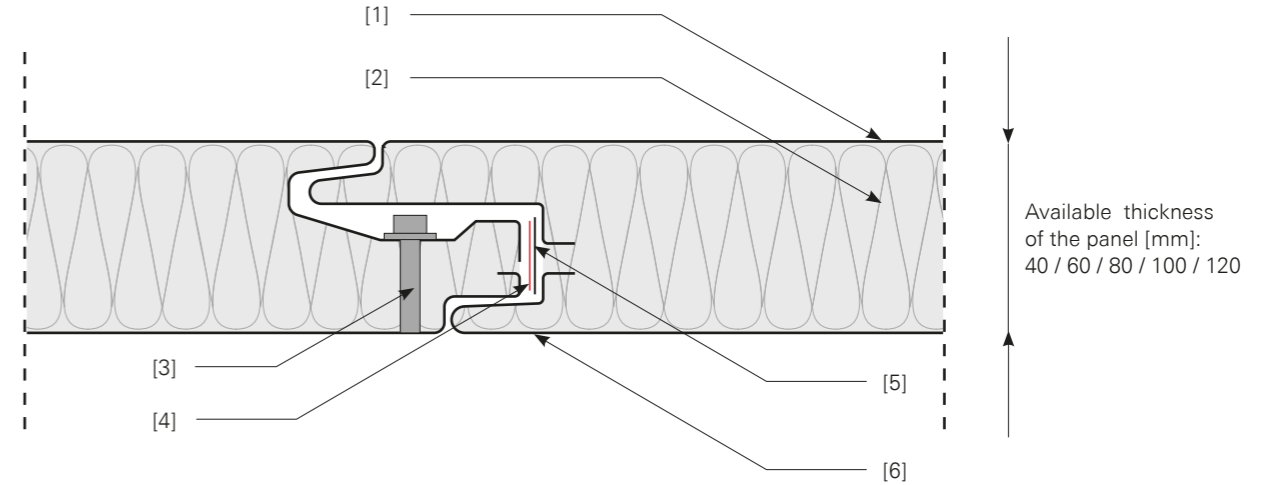
external side



internal side



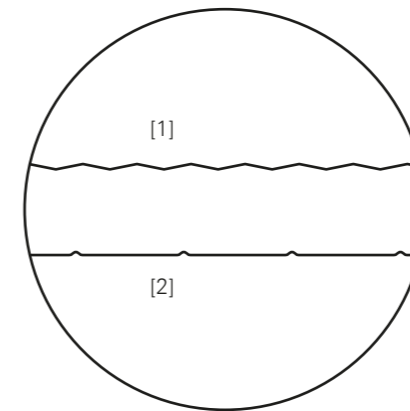
PUR panel thickness [mm]	40	60	80	100	120
PIR panel thickness [mm]	-	60	80	100	120
Weight [kg] 1/m²	10,8	11,56	12,32	12,32	13,89
Core	PUR/PIR				
Effective width	1000 mm				
Total width	1047 mm				
Min. plate length	2,50 m				
Max. plate length	13,50 m				
Sheet thickness out./ inn.	0,4-0,7 / 0,4-0,7 mm				
Factor U [W/m²k]	0,60	0,38	0,27	0,21	0,17
Profiling type external/internal	PSF - Wave / Ribs PFL - Wave / Smooth*				
Coatings	RAL, HC, HPS200				
Accessories	fastening system, gaskets, flashings				



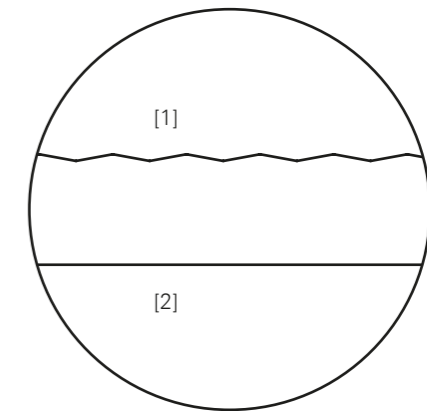
- [1] external steel facing
- [2] insulation (PUR/PIR)
- [3] self-drilling fastener
- [4] tape
- [5] seal
- [6] internal steel facing

PROFILING TYPES

PSF



PFL



- [1] external side
- [2] internal side

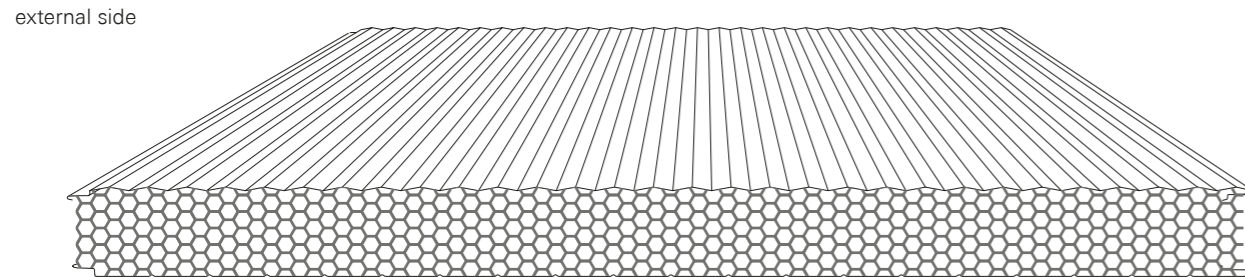
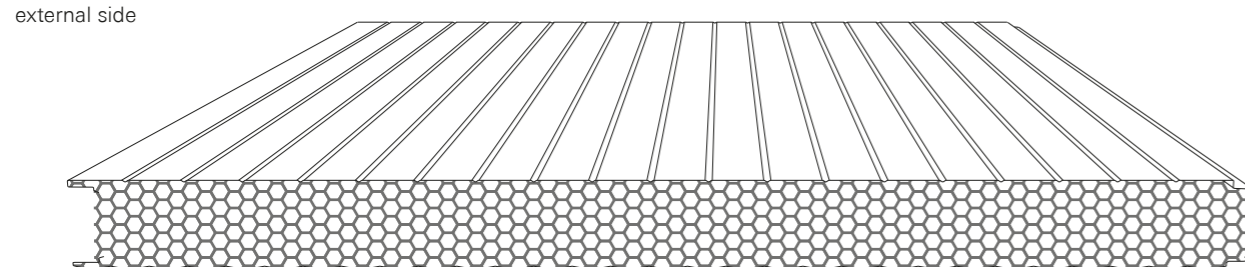
*Smooth profile may include slight waviness of the surface - facing minimum thickness is 0.5 mm.

Wall sandwich panels

HPP MDD Wall sandwich panel with mineral wool and visible fastening

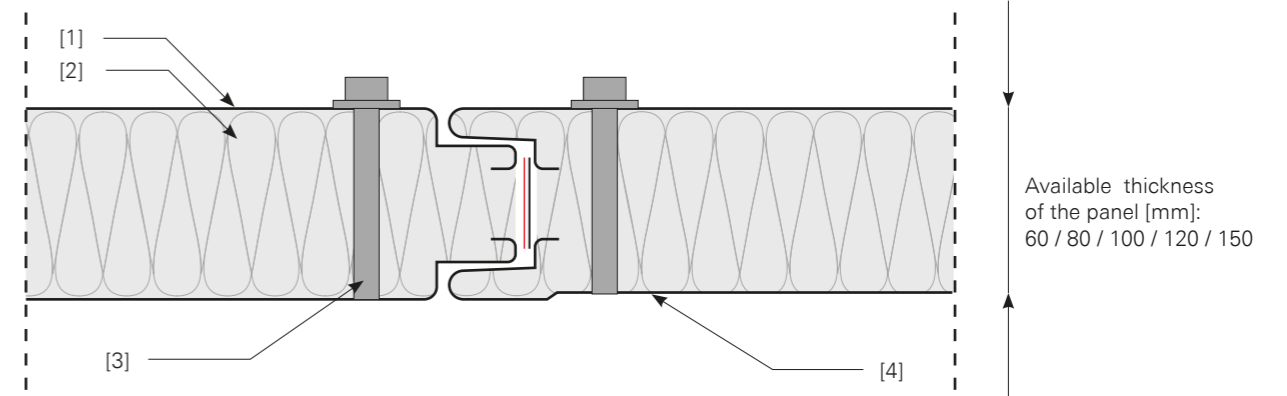


Wall sandwich panels with mineral wool and visible fastening consist of a structural insulating core and two facings. The facings are made of a 0.5-0.7 mm thick steel sheet and are coated with polyester or protective organic coatings. The panel core is made of mineral wool with overall average thickness of 100±10 kg/m³. The panels have exceptionally high fire resistance, high rigidity and mechanical durability. They are equipped with properly profiled joints that allow for fast and simple installation on any type of structure.



Tile thickness [mm]	60	80	100	120	150
Weight [kg] 1/m ²	14,18	15,70	17,70	19,70	22,70
Core	mineral wool of density 100kg/m ³				
Effective width	1000 mm				
Total width	1018 mm				
Min. plate length	2,50 m				
Max. plate length	13,50 m				
Sheet thickness out./ inn.	0,5-0,7 / 0,5-0,7 mm				
Factor U [W/m ² k]	0,50	0,41	0,34	0,28	
Profiling type external/internal	MDD - Wave / Ribsy				
	FDD - Wave / Ribs perforated				
	MDL - Wave / Smooth*				
Coatings	RAL, HC, HPS200				
Accessories	fastening system, gaskets, flashings				

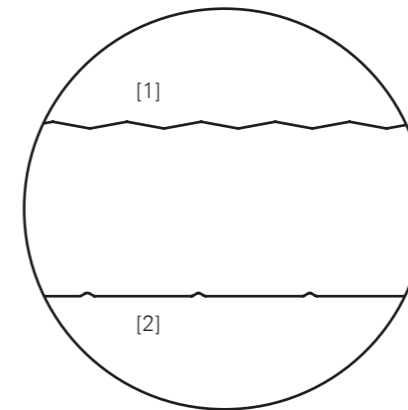
*Smooth profile may include slight waviness of the surface - facing minimum thickness is 0.5 mm.



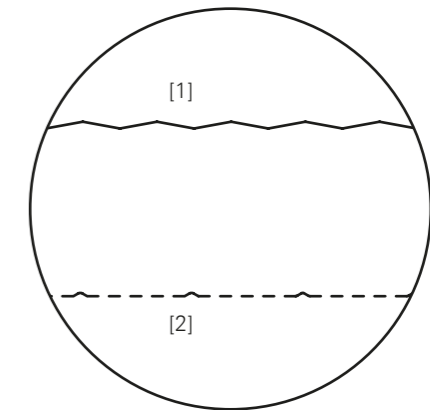
- [1] external steel facing
- [2] Insulation (mineral wool)
- [3] self-drilling fastener
- [4] internal steel facing

PROFILING TYPES

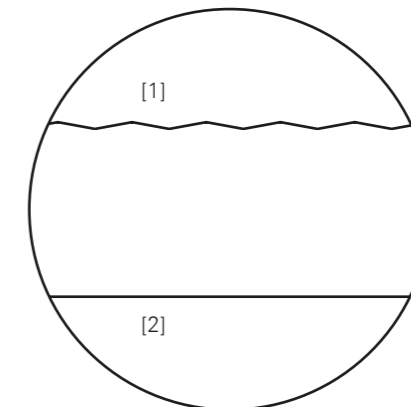
MDD



FDD



MDL



- [1] external side
- [2] internal side

6

ROOF SANDWICH PANELS



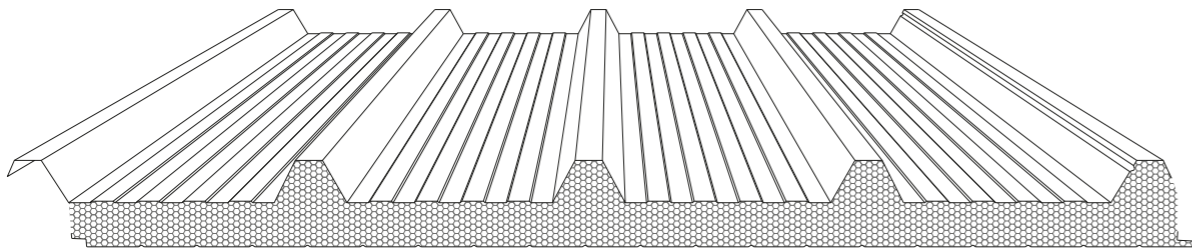
Roof sandwich panel

HPT TD5 Roof panels PUR/PIR

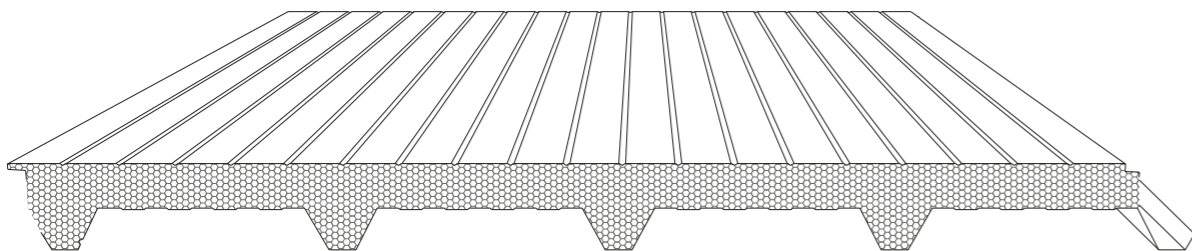
Roof panels PUR/PIR consist of a structural insulating core and two steel facings. The facings are made of a 0.4-0.7 mm thick steel sheet and coated with a polyester coating and protective organic coatings. The core of the panel is made of polyurethane (PUR) and polyisocyanurate (PIR) foam with overall average density of 40/42 ±3 kg/m³. The panels have high fire-resistance and insulation properties and high durability. They are equipped with properly profiled joints that allow for fast and simple installation on any type of structure. Regarding roof panels, minimum slope of the roof is >5% in case of continuous panels without skylights.

CORE^{PUR}
CORE^{PIR}

external side

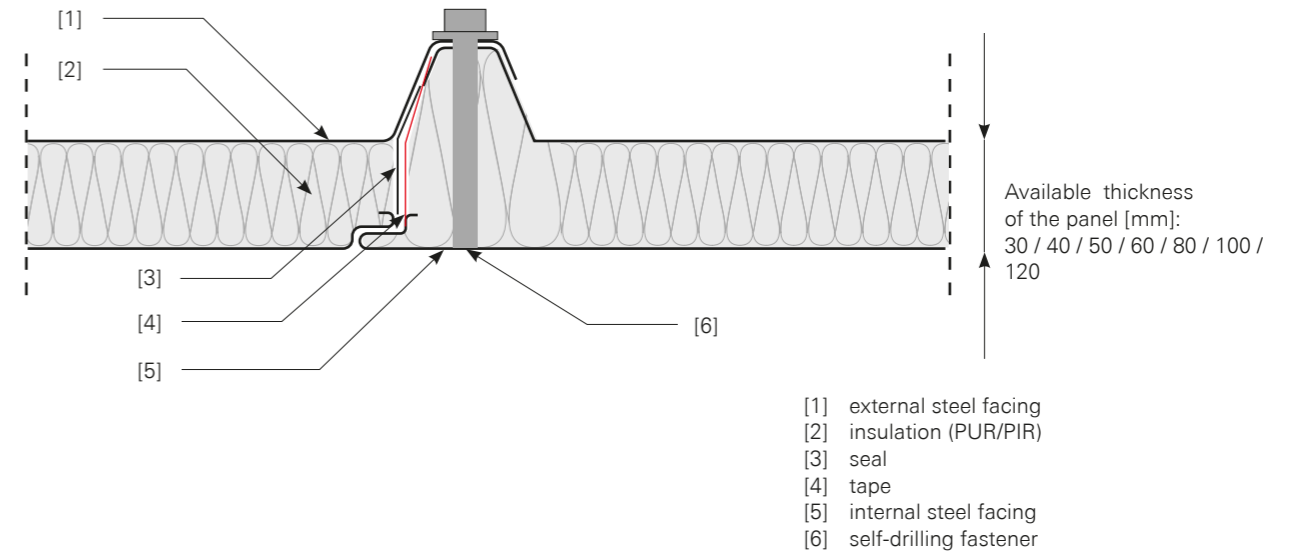


internal side



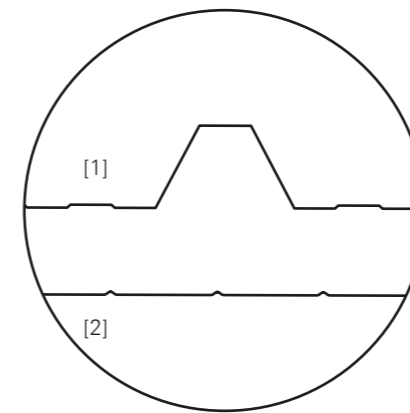
Tile thickness [mm]	30	40	50	60	80	100	120
PIR panel thickness [mm]	-	-	-	60	80	100	120
Weight [kg] 1/m²	10,23	10,61	10,99	11,37	12,13	12,89	13,65
Core	PUR/PIR						
Effective width	1000 mm						
Total width	1067 mm						
Min. plate length	2,50 m						
Max. plate length	13,50 m						
Sheet thickness out./ inn.	0,4-0,7 / 0,4-0,7 mm						
Factor U [W/m²k]	0,67	0,51	0,41	0,35	0,26	0,21	0,18
Profiling type external/internal	TD5 – Trapeze T-40 / Ribs						
	HPP TL5 - Trapeze T-40 / Smooth*						
	TK5 VR Trapez T-40 / Fiberglass						
Coatings	RAL, HC, HPS200						
Accessories	fastening system, gaskets, flashings						

*Smooth profile may include slight waviness of the surface - facing minimum thickness is 0.5 mm.

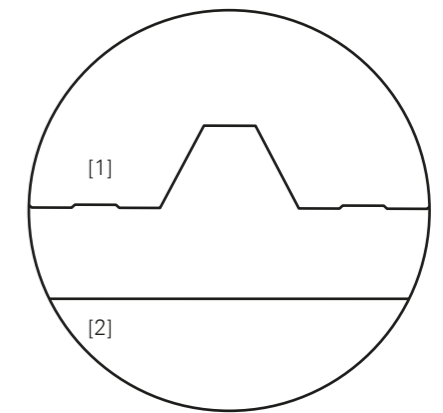


PROFILING TYPES

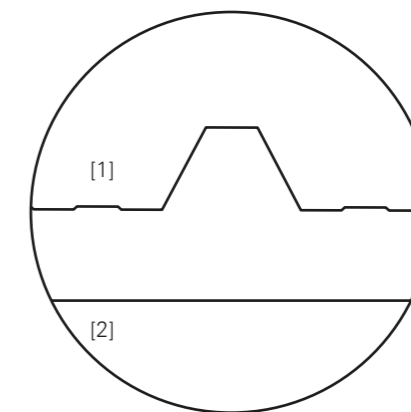
TD5



TL5



TK5 VR



[1] external side
[2] internal side

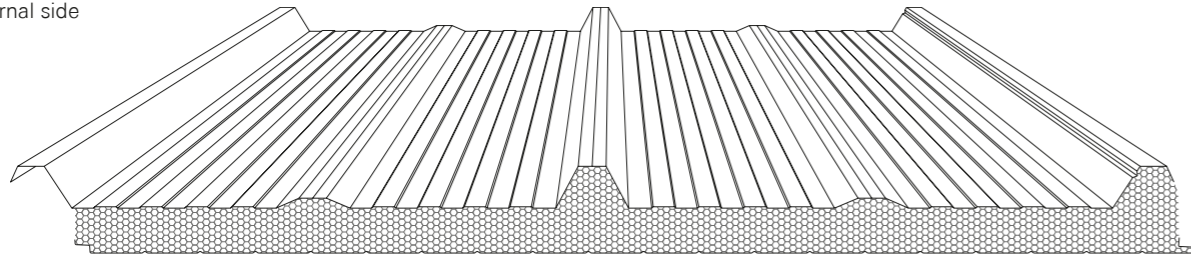
Roof sandwich panel

HPT TD3 Roof panels PUR/PIR

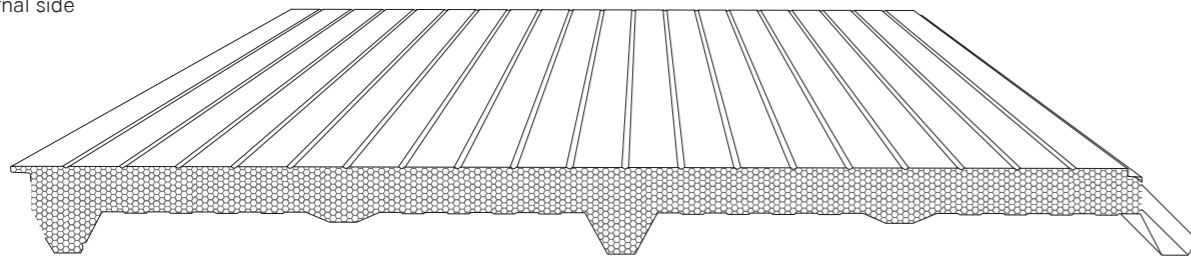
Roof panels PUR/PIR consist of a structural and insulating core and two steel facings. The facings are made of a 0.4-0.7mm thick steel sheet and are coated with a polyester coating and protective organic coatings. The core of the panel is made of polyurethane (PUR) and polyisocyanurate (PIR) foam with overall average density of 40/42 ±3 kg/m³. The panels have high fire-resistance and insulation properties and high durability. They are equipped with properly profiled joints that allow for fast and simple installation on any type of structure. Regarding roof panels, minimum slope of the roof is >5% in case of continuous panels without skylights.

CORE^{PUR}
CORE^{PIR}

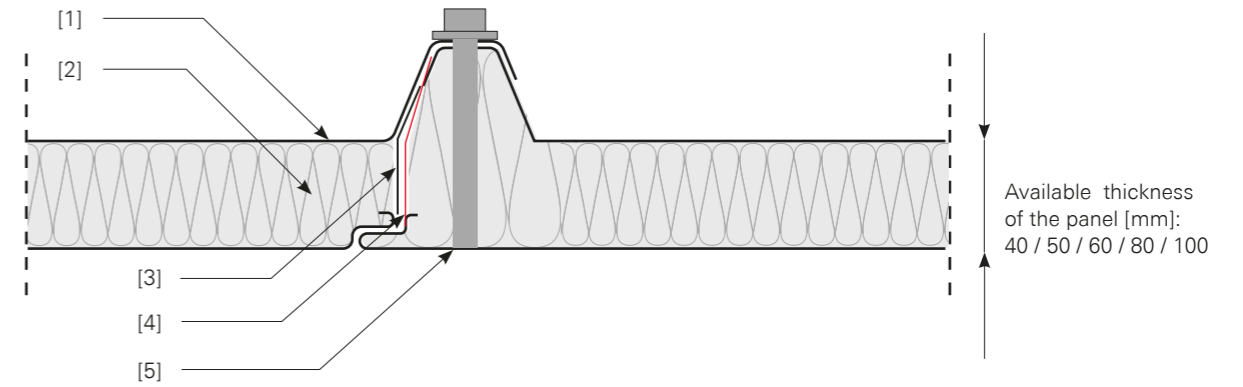
external side



internal side



Tile thickness [mm]	40	50	60	80	100	-
PIR panel thickness [mm] [mm]	-	50	60	80	100	120
Weight [kg] 1/m ²	10,21	10,59	10,97	11,73	12,49	13,65
Core	PUR/PIR					
Effective width	1000 mm					
Total width	1067 mm					
Min. plate length	2,50 m					
Max. plate length	13,50 m					
Sheet thickness out./ inn.	0,4-0,7 / 0,4-0,7 mm					
Factor U [W/m ² k]	0,67	0,51	0,41	0,35	0,26	0,21 0,18
Profiling type external/internal	TD5 – Trapeze T-40 / Ribs					
	HPP TL5 - Trapeze T-40 / Smooth*					
	TK5 VR Trapez T-40 / Fiberglass					
Coatings	RAL, HC, HPS200					

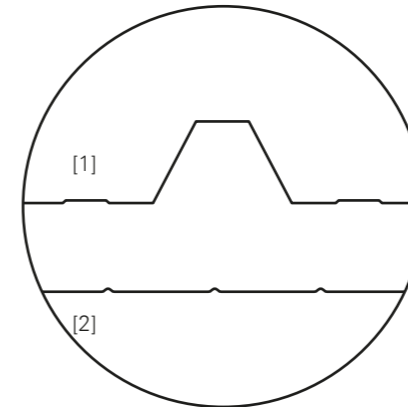


- [1] external steel facing
- [2] insulation (PUR/PIR)
- [3] seal
- [4] tape
- [5] internal steel facing

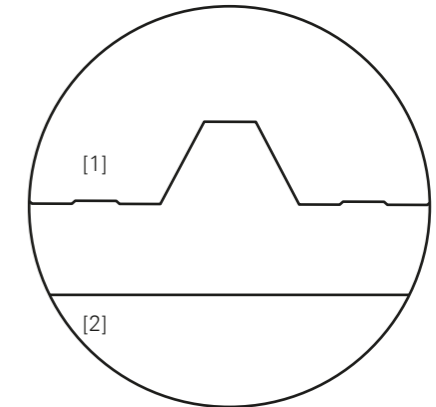
Available thickness of the panel [mm]:
40 / 50 / 60 / 80 / 100

PROFILING TYPES

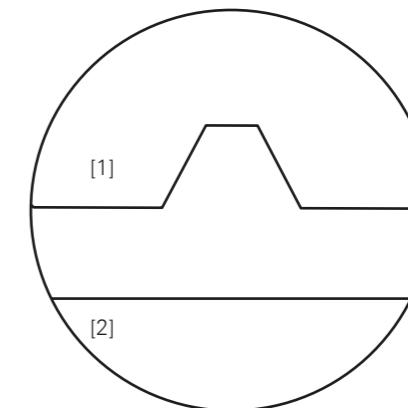
TD3



TL3



TK3 VR



- [1] external side
- [2] internal side

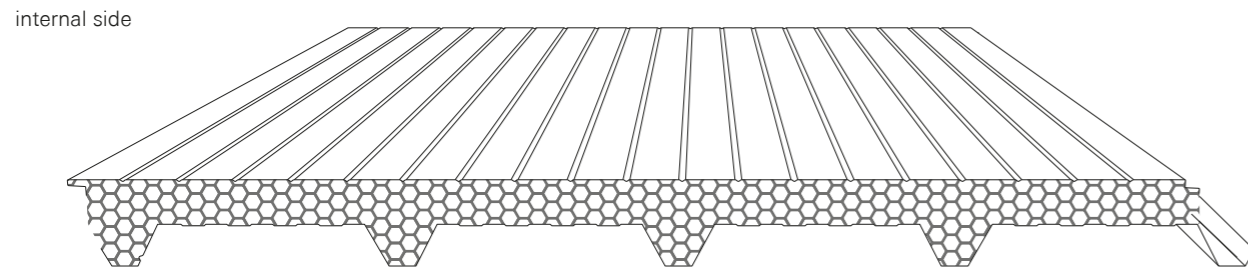
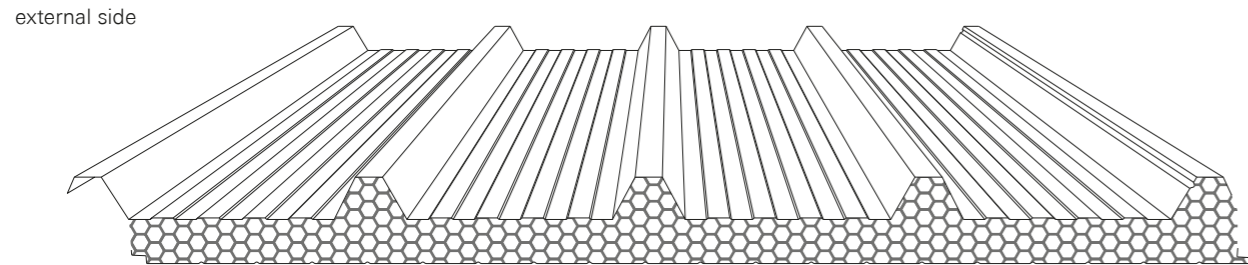
*Smooth profile may include slight waviness of the surface - facing minimum thickness is 0.5 mm.

Roof sandwich panel

HPT MTD Roof sandwich panel with mineral wool

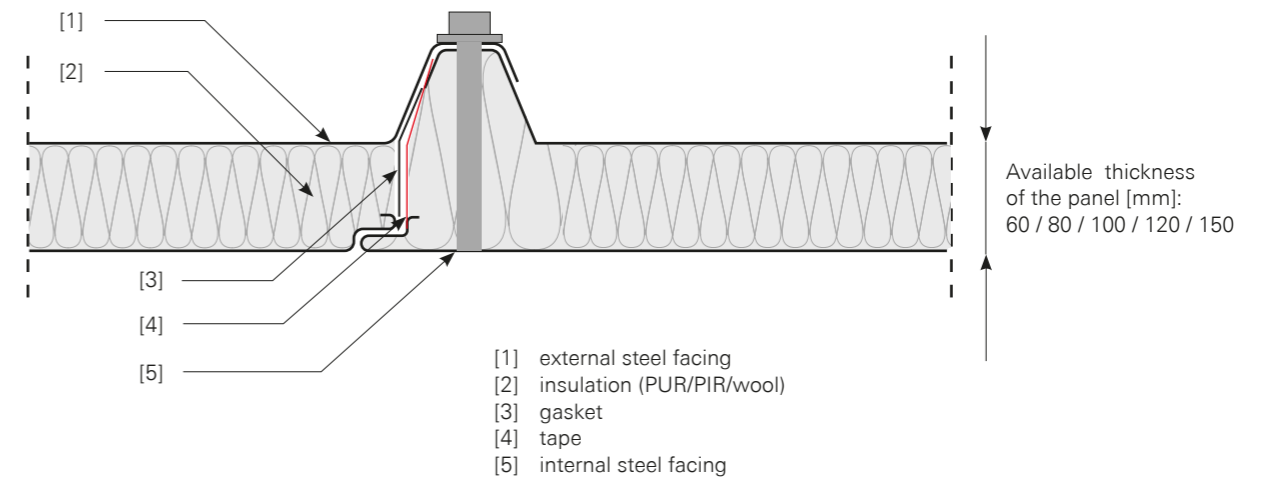
COREWOOL

Roof sandwich panels with mineral wool consist of a structural insulating core and two steel facings. The facings are made of a 0.4-0.7 mm thick steel sheet and coated with polyester or protective organic coatings. The core of the panel is made of mineral wool with overall average density of $100 \pm 10 \text{ kg/m}^3$. These panels have exceptionally high fire-resistance, high rigidity and mechanical strength. They are equipped with properly profiled joints that allow for fast and simple installation on any type of structure. Regarding roof panels, minimum slope of the roof is $>5\%$ in case of continuous panels without skylights.



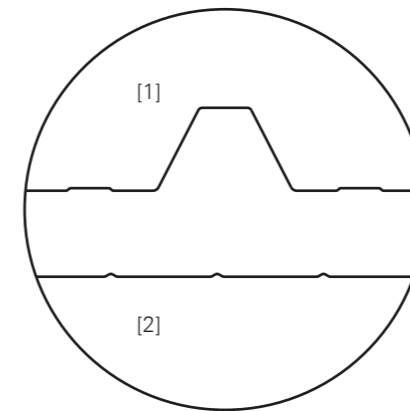
Tile thickness [mm]	60	80	100	120	150
Weight [kg] 1/m ²	16,85	18,85	20,85	22,85	25,85
Core	mineral wool				
Effective width	1000 mm				
Total width	1067 mm				
Min. plate length	2,50 m				
Max. plate length	13,50 m				
Sheet thickness out./ inn.	0,5-0,7 / 0,5-0,7 mm				
Factor U [W/m ² k]	0,52	0,42			
Profiling type external/internal	MTD – Trapeze T-40 / Ribs				
	FTD – Trapeze T-40 / Ribs perforated				
	MTL - Trapeze T-40 / Smooth*				
Coatings	RAL, HC, HPS200				
Accessories	fastening system, gaskets, flashings				

*Smooth profile may include slight waviness of the surface - facing minimum thickness is 0.5 mm.

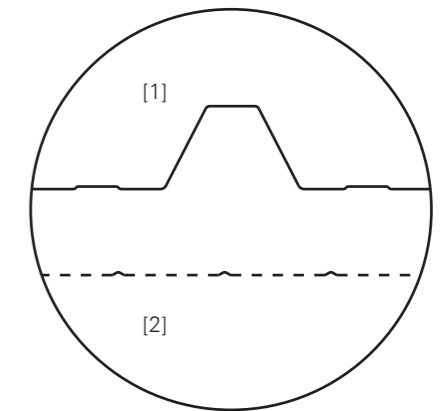


PROFILING TYPES

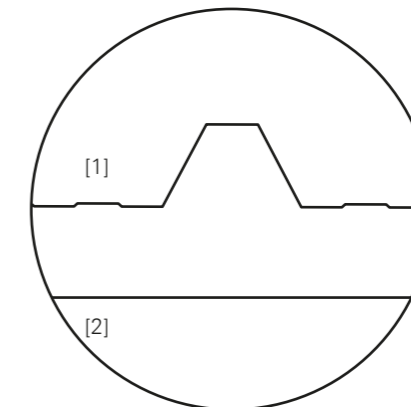
MTD



FTD



MLT



- [1] external side
- [2] internal side

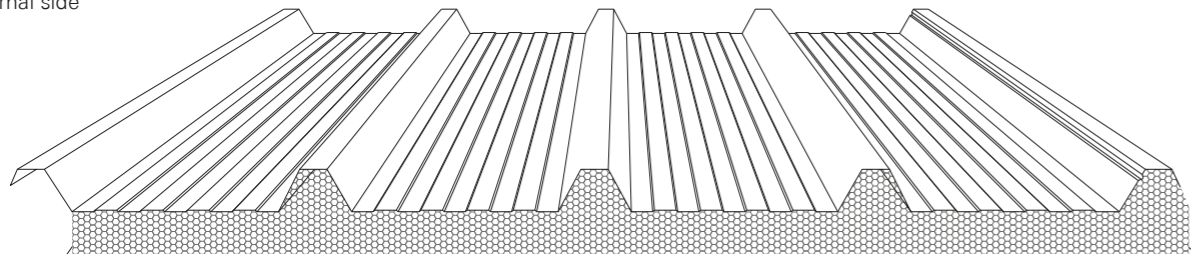
Roof sandwich panel

HPT TK5 CB Reversed roof sandwich panel PUR

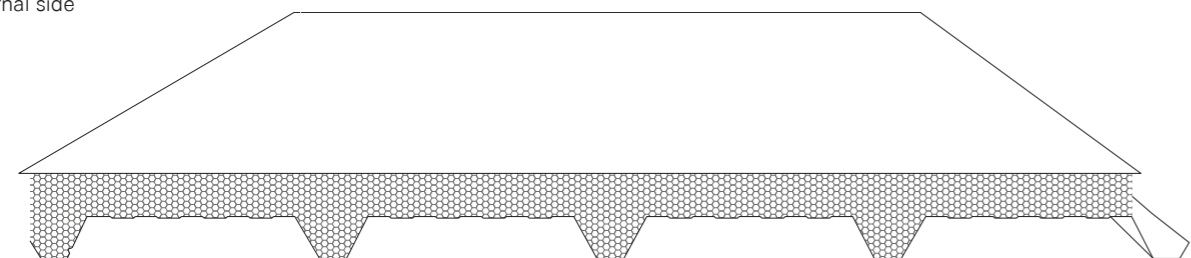
COREPUR

Reversed roof sandwich panels PUR consist of structural load-carrying sheet, insulation core and top layer prepared for hydroinsulation installation. The facings are made of a 0.4-0.7 mm thick steel sheet and coated with a polyester coating and protective organic coatings. The core of the panel is made of polyurethane (PUR) foam with overall average density of $40 \pm 3 \text{ kg/m}^3$. The panels have high fire-resistance and insulation properties and high durability. They are equipped with properly profiled joints that allow for fast and simple installation on any type of structure. The panels are designed for waterproof flat and/or sloped roofs.

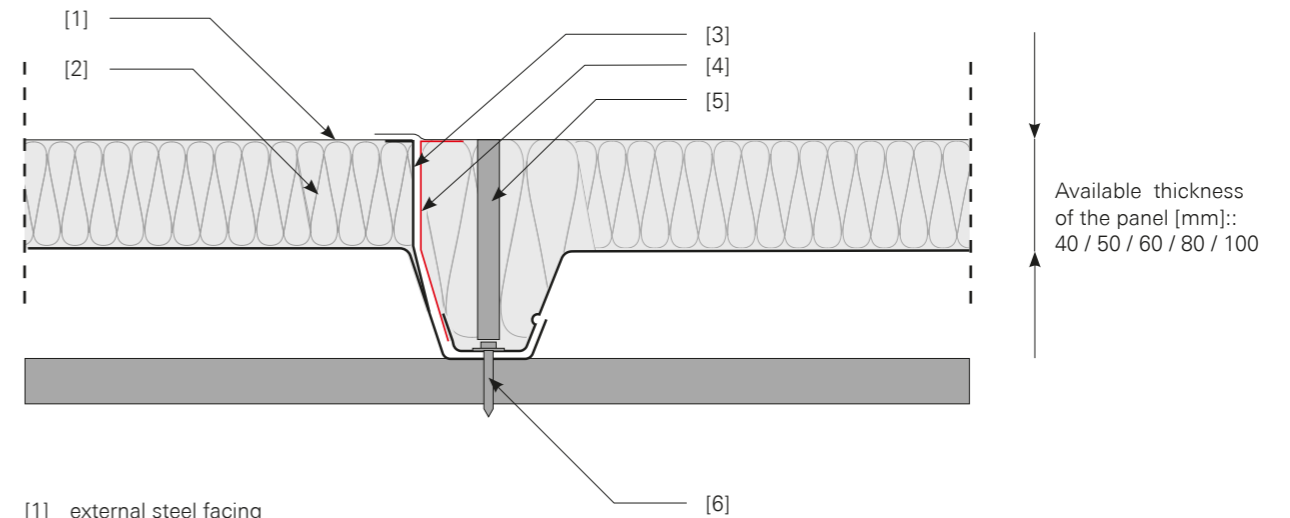
external side



internal side



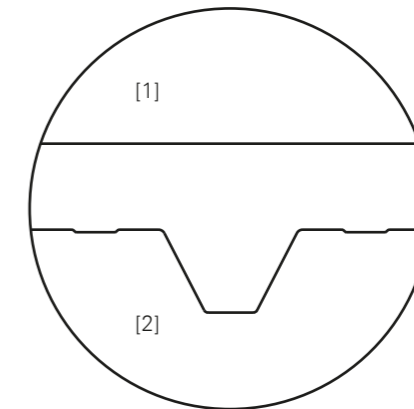
Tile thickness [mm]	30	40	50	60	80	100
Weight [kg] 1/m ²		8,42	8,80	9,18	9,94	10,70
Core	PUR					
Effective width	1000 mm					
Total width	1060 mm					
Min. plate length	2,50 m					
Max. plate length	13,50 m					
Sheet thickness out./ inn.	0,4-0,7 mm					
Factor U [W/m ² k]		0,43	0,35	0,3	0,23	0,19
Profiling type external/internal	TK5 CB – Bituminized felt/Trapez T-40					
Coatings	RAL, HC, HPS200					
Accessories	fastening system, gaskets, flashings					



- [1] external steel facing
- [2] insulation (PUR/PIR)
- [3] gasket
- [4] tape
- [5] bush
- [6] fastener

PROFILING TYPES

TK5 CB



- [1] external side
- [2] internal side

*Smooth profile may include slight waviness of the surface - facing minimum thickness is 0.5 mm.

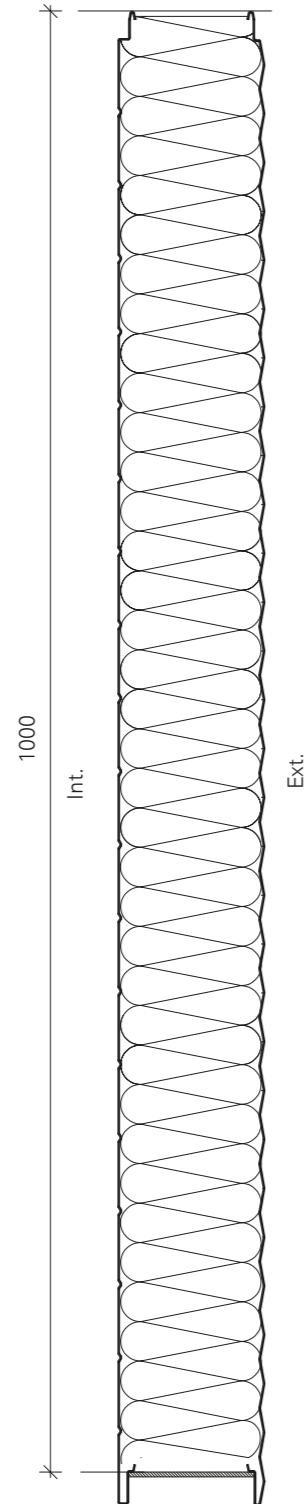
7

TECHNICAL DATA

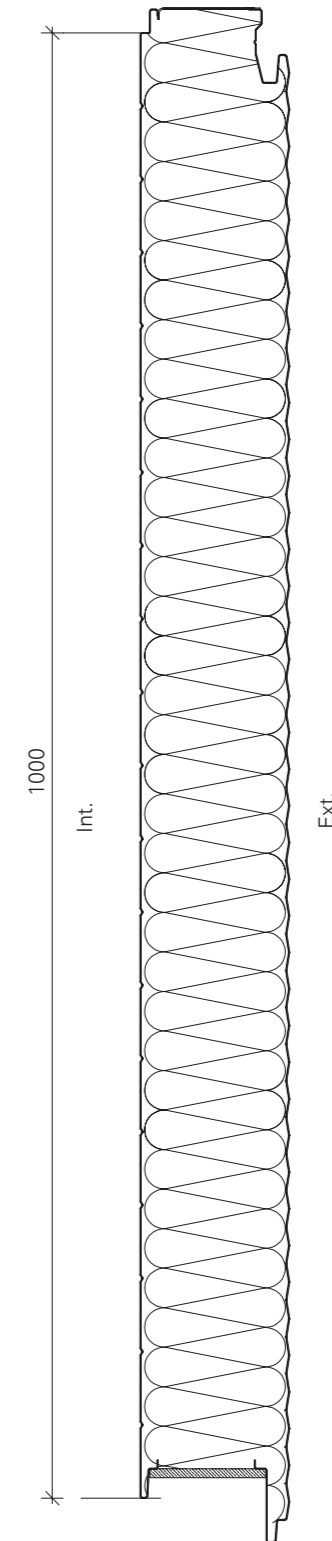


TECHNICAL DRAWINGS OF SANDWICH PANELS

Panel version: HPP PSD, HPP MDD
DET. 01

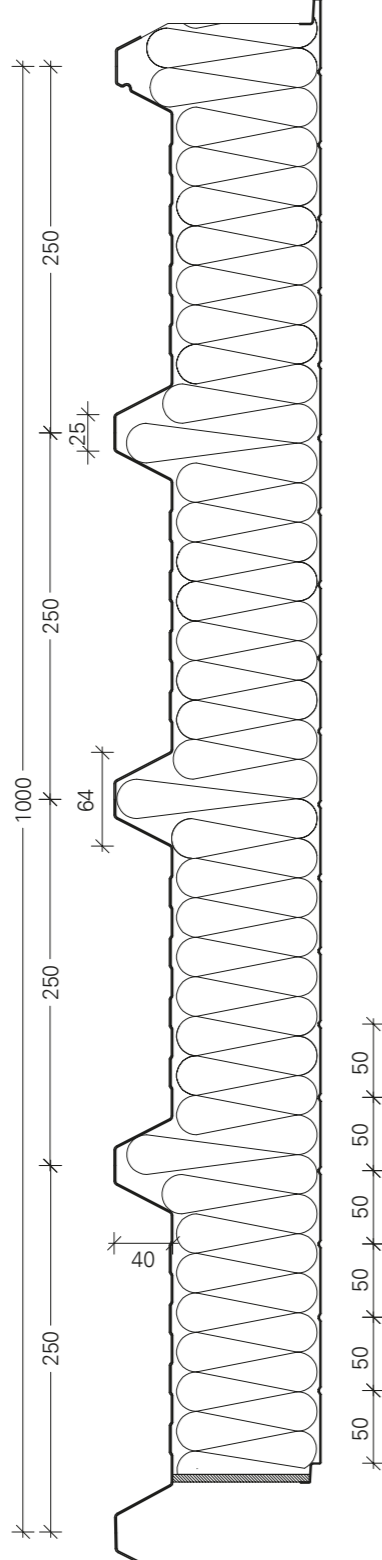


Panel version: HPP PSF
DET. 02

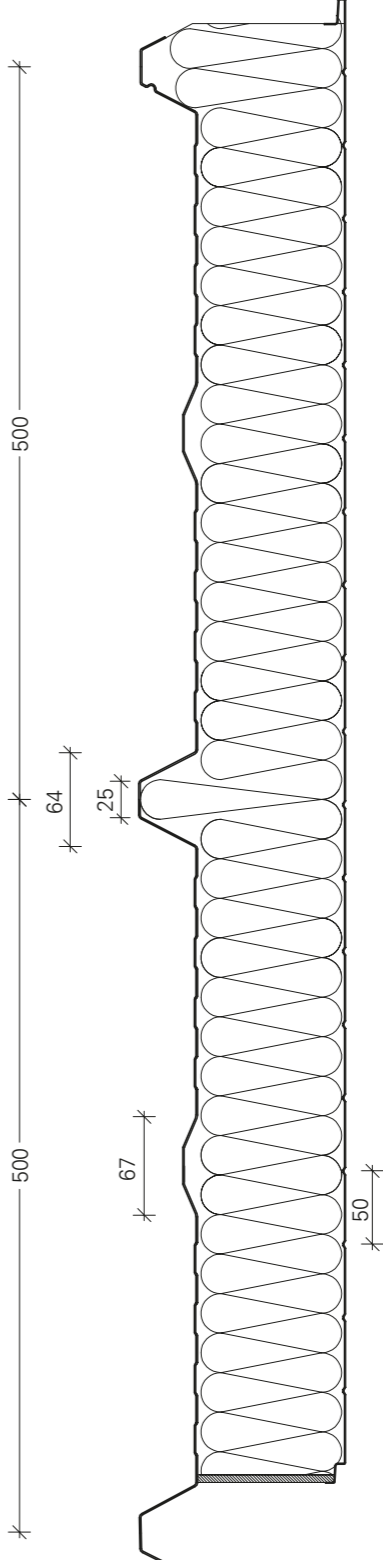


Technical data

Panel version: HPT TD5, HPT MTD
DET. 03

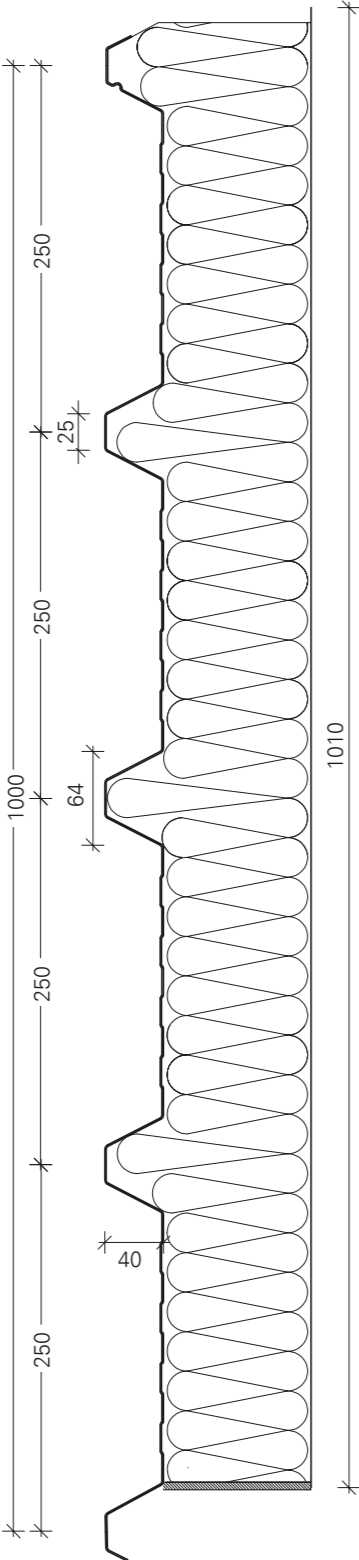


Panel version: HPT TD3
DET. 04

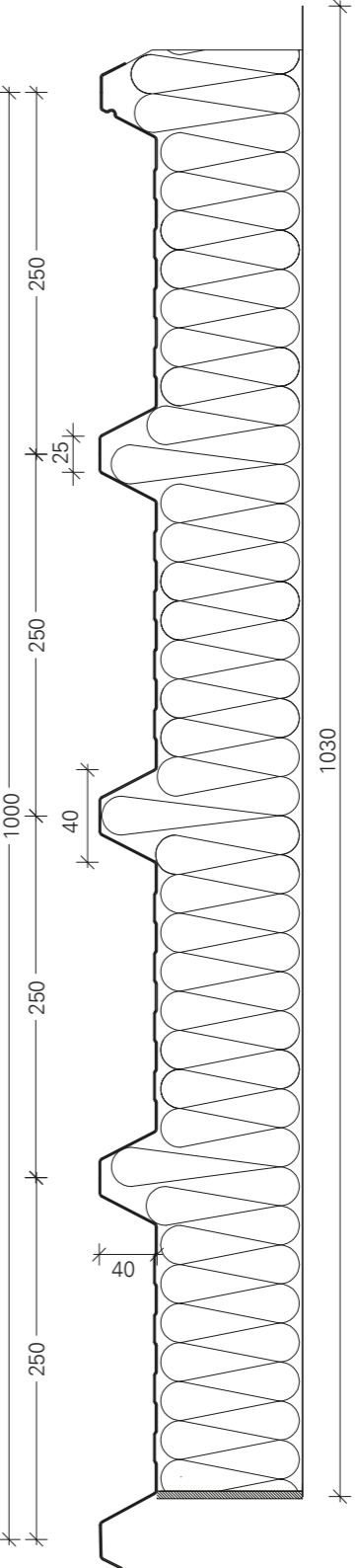


Technical data

Panel version: HPT TL5
DET. 05

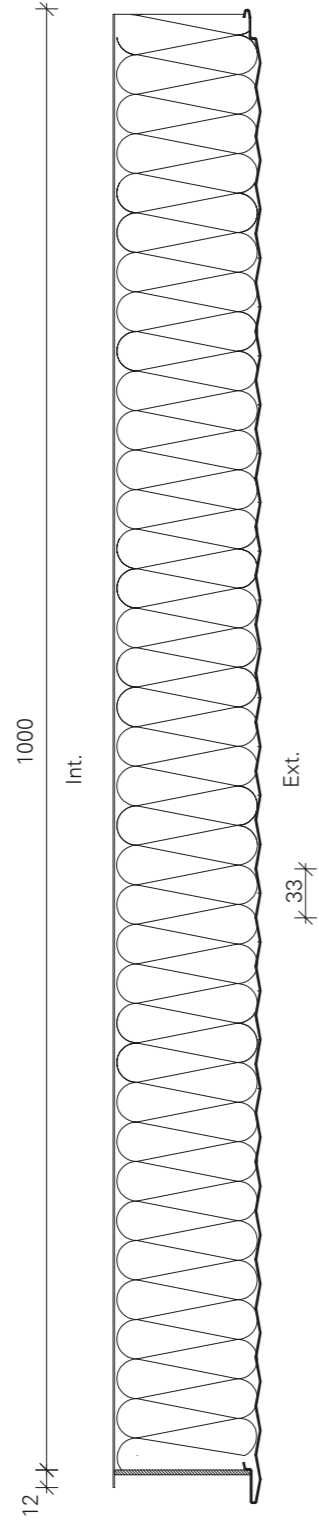


Panel version: HPT TK5 CB / HTP TK5 VR
DET. 06

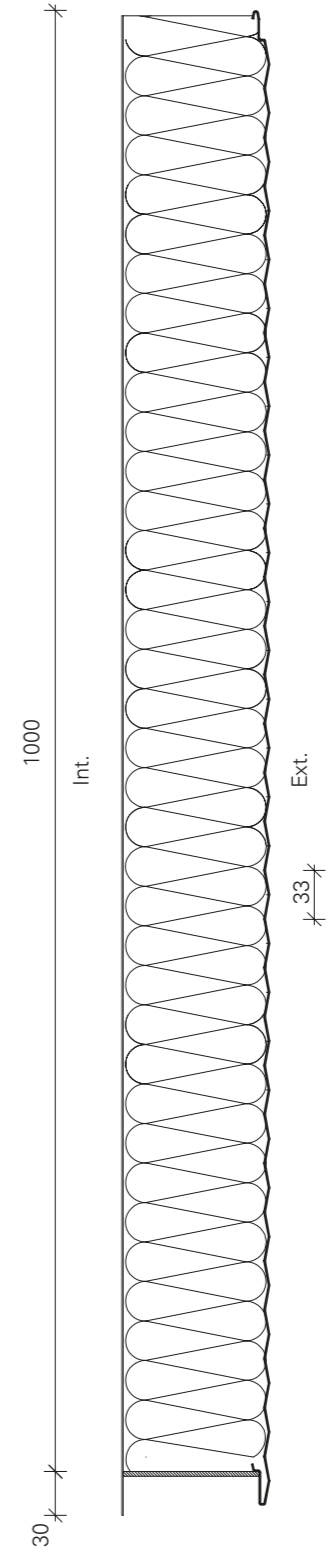


Technical data

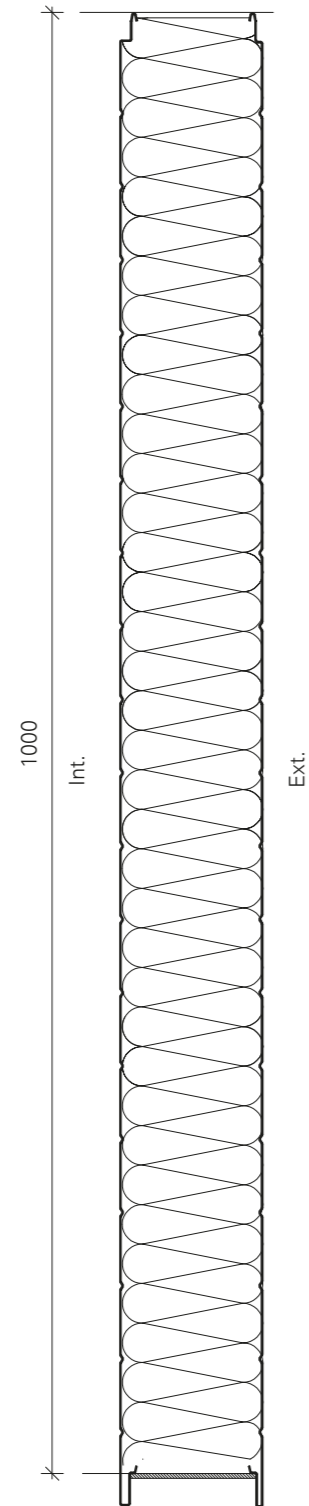
Panel version: HPP PVS
DET. 07



Panel version: HPP PKS
DET. 08

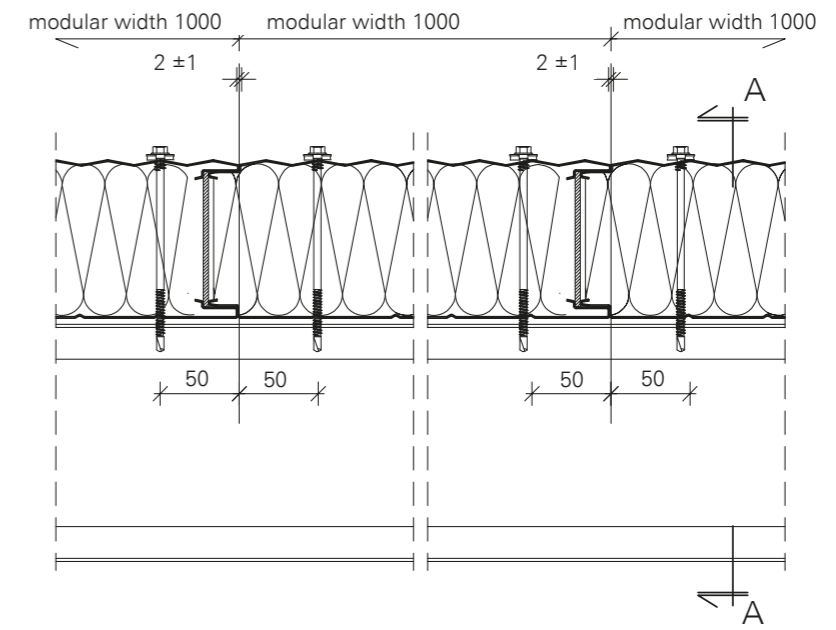


Panel version: HPP PDD
DET. 09

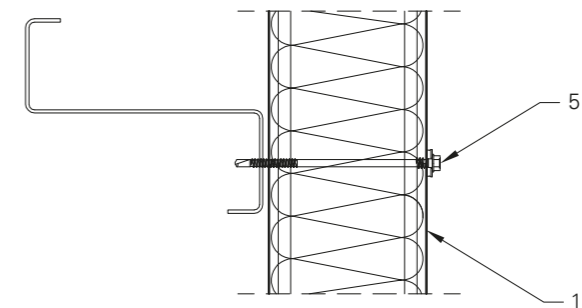


INSTALLATION DETAILS

Arrangement of wall panels: vertical
Applies to wall panels: HPP PSD, HPP MDD
DET. W.02.01



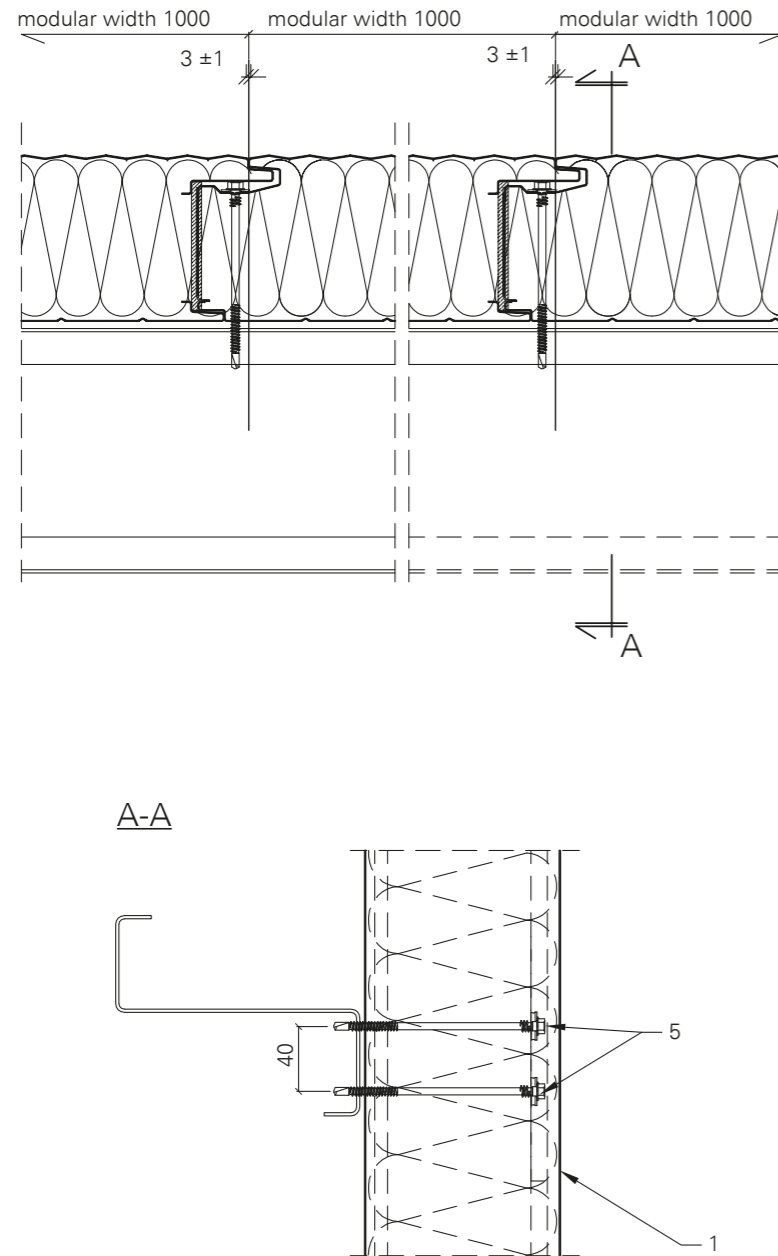
A-A



- [1] sandwich panel
- [5] board fastener

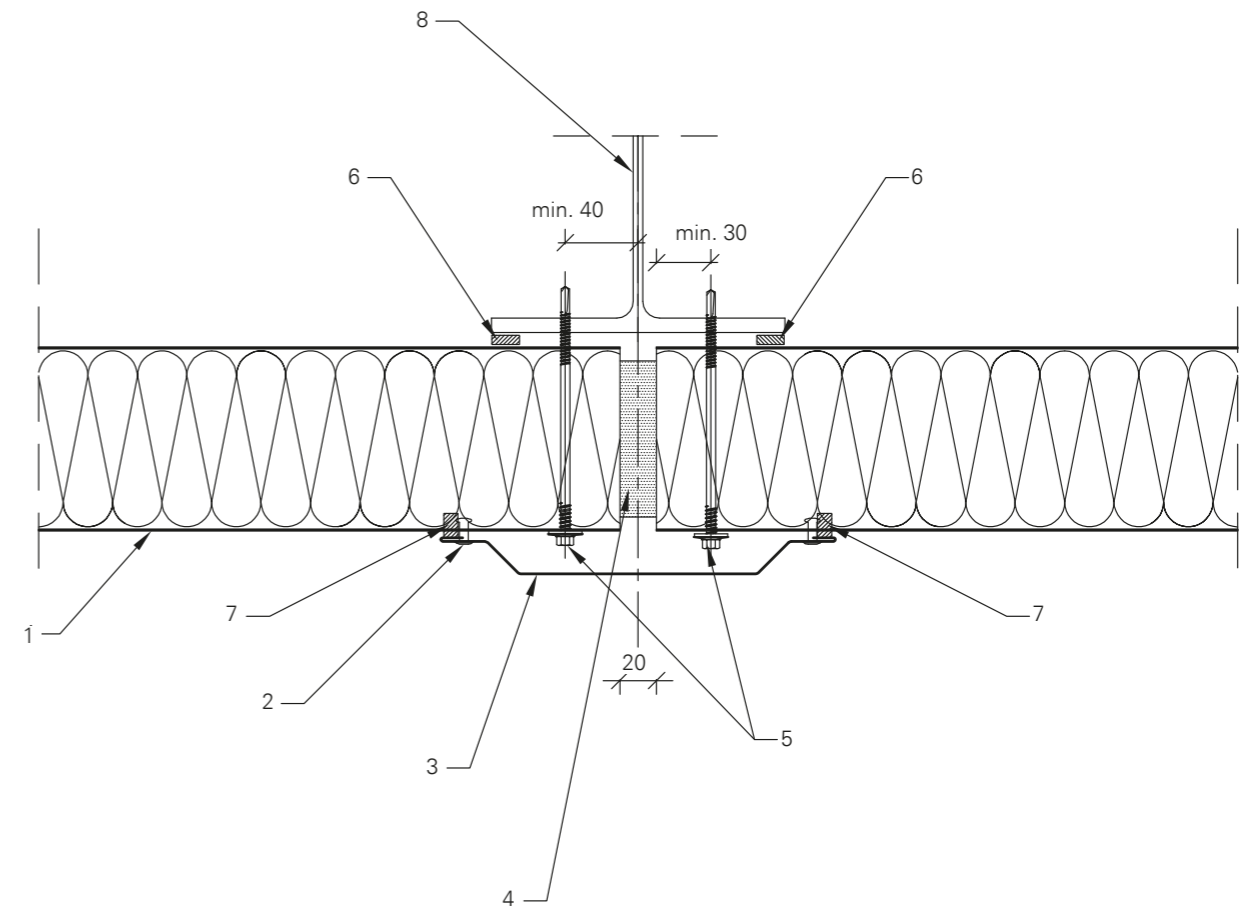
Technical data

Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSF
 DET. W.02.02



- [1] sandwich panel
- [5] board fastener

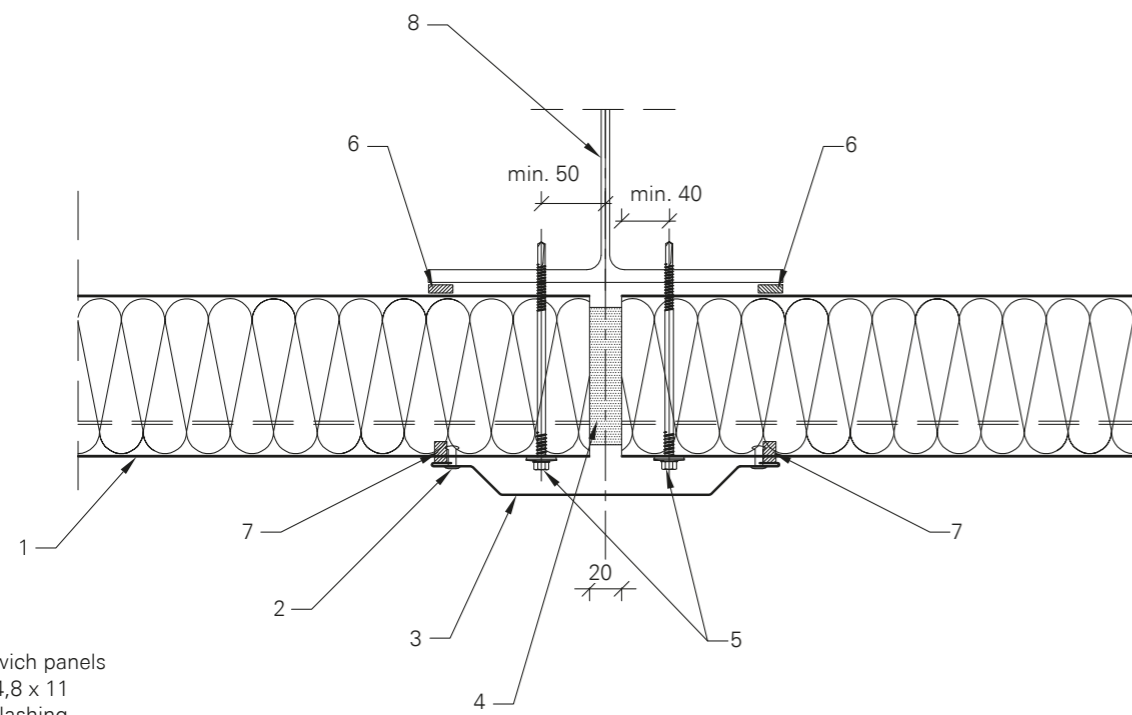
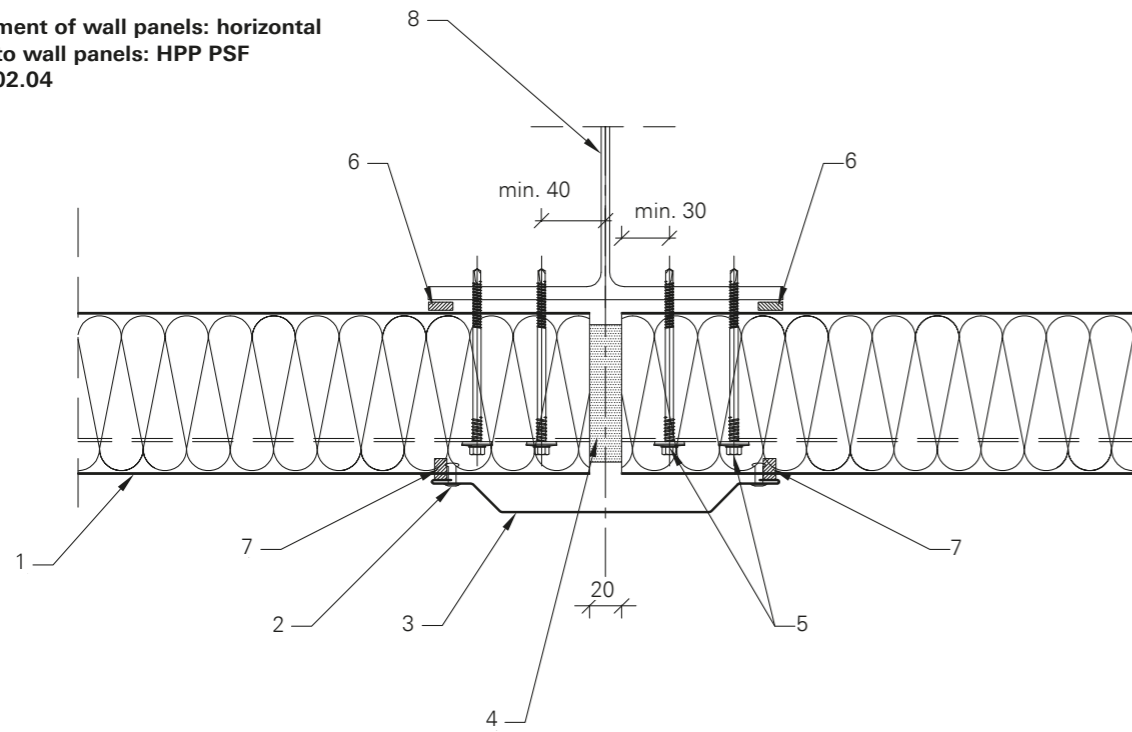
Arrangement of wall panels: horizontal
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.02.03



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] joint flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [6] sealing tape
- [7] silicone sealing compound
- [8] pillar

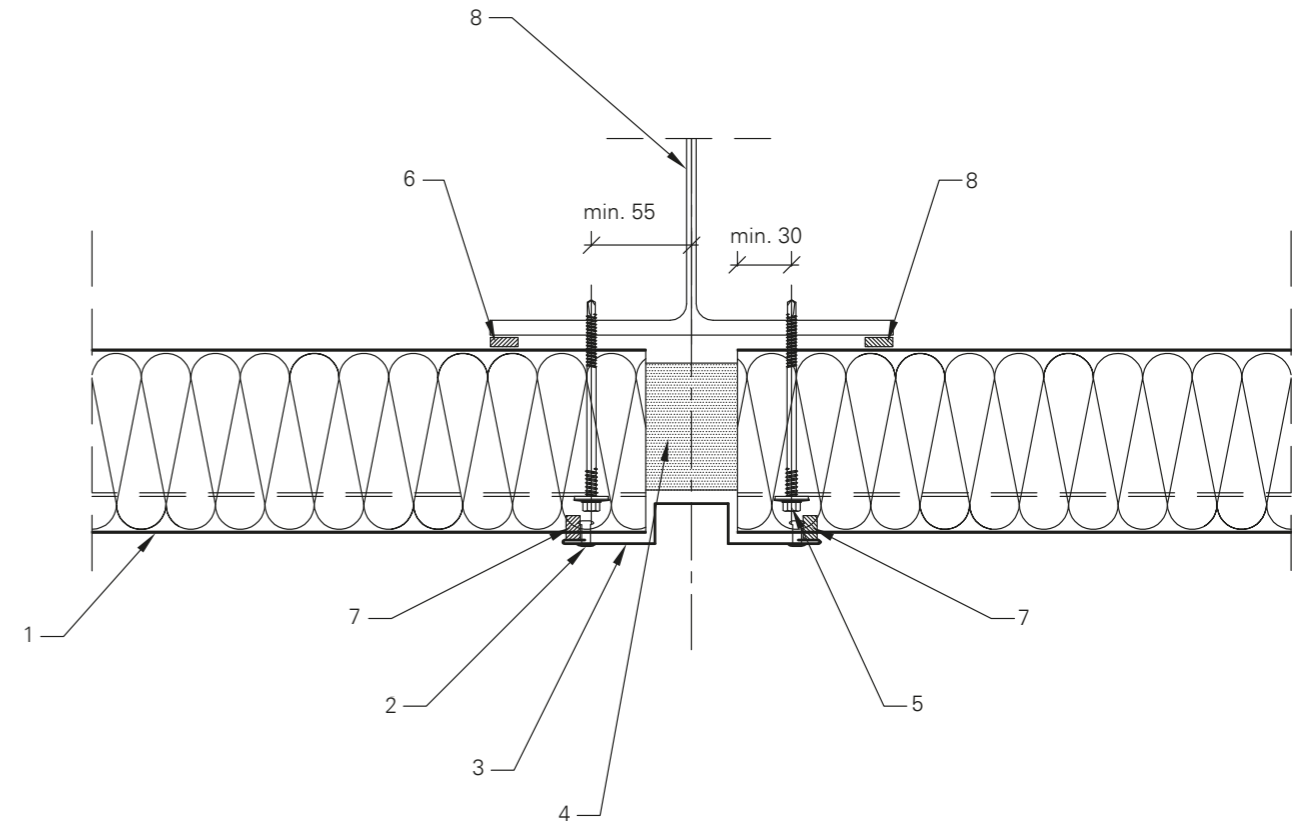
Technical data

Arrangement of wall panels: horizontal
Applies to wall panels: HPP PSF
DET. W.02.04



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] joint flashing
- [4] filling of the joints - installation foam
- [5] panel fastener
- [6] sealing tape
- [7] silicone sealing compound
- [8] pillar

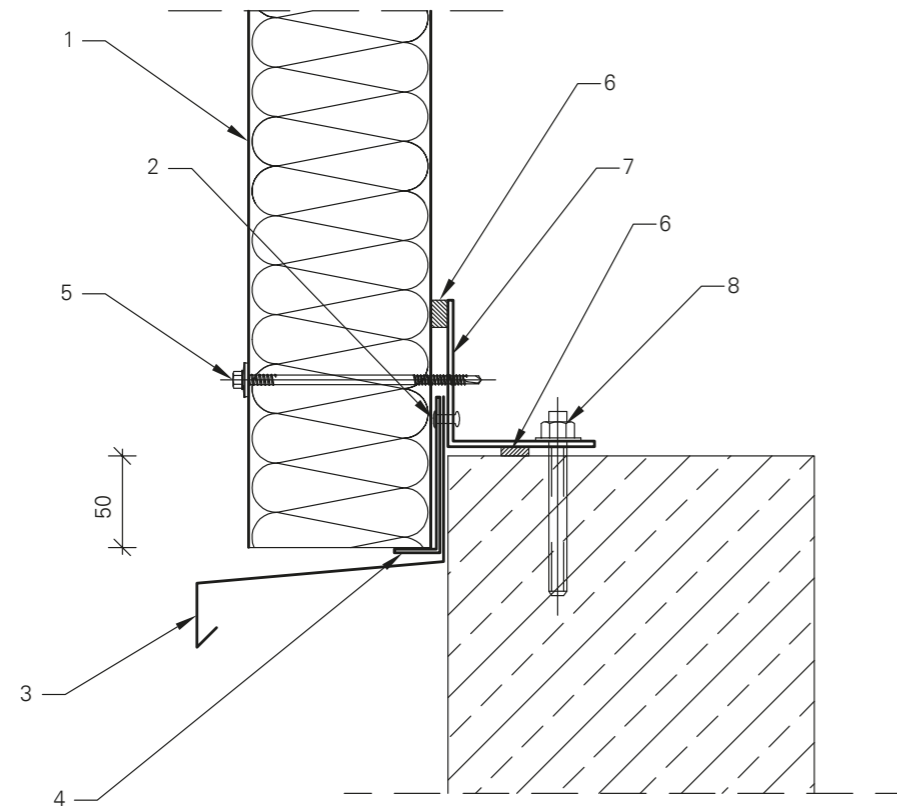
Arrangement of wall panels: horizontal
Applies to wall panels: HPP PSF
DET. W.02.05



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] joint flashing
- [4] filling of the joints - installation foam
- [5] panel fastener
- [6] sealing tape
- [7] silicone sealing compound
- [8] pillar

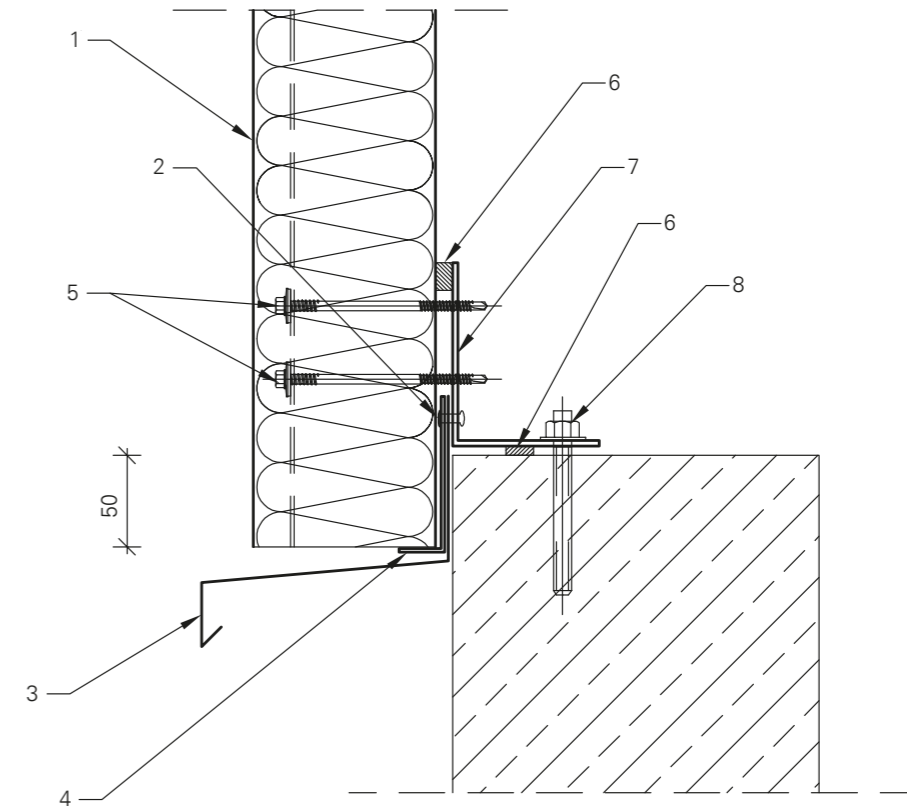
PLINTH DETAILS

Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.01.01



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] plinth drip cap
- [4] L-profile - at the panels joint
- [5] panel fastener
- [6] sealing tape
- [7] profile acc. to steel structure
- [8] anchor acc. to steel structure

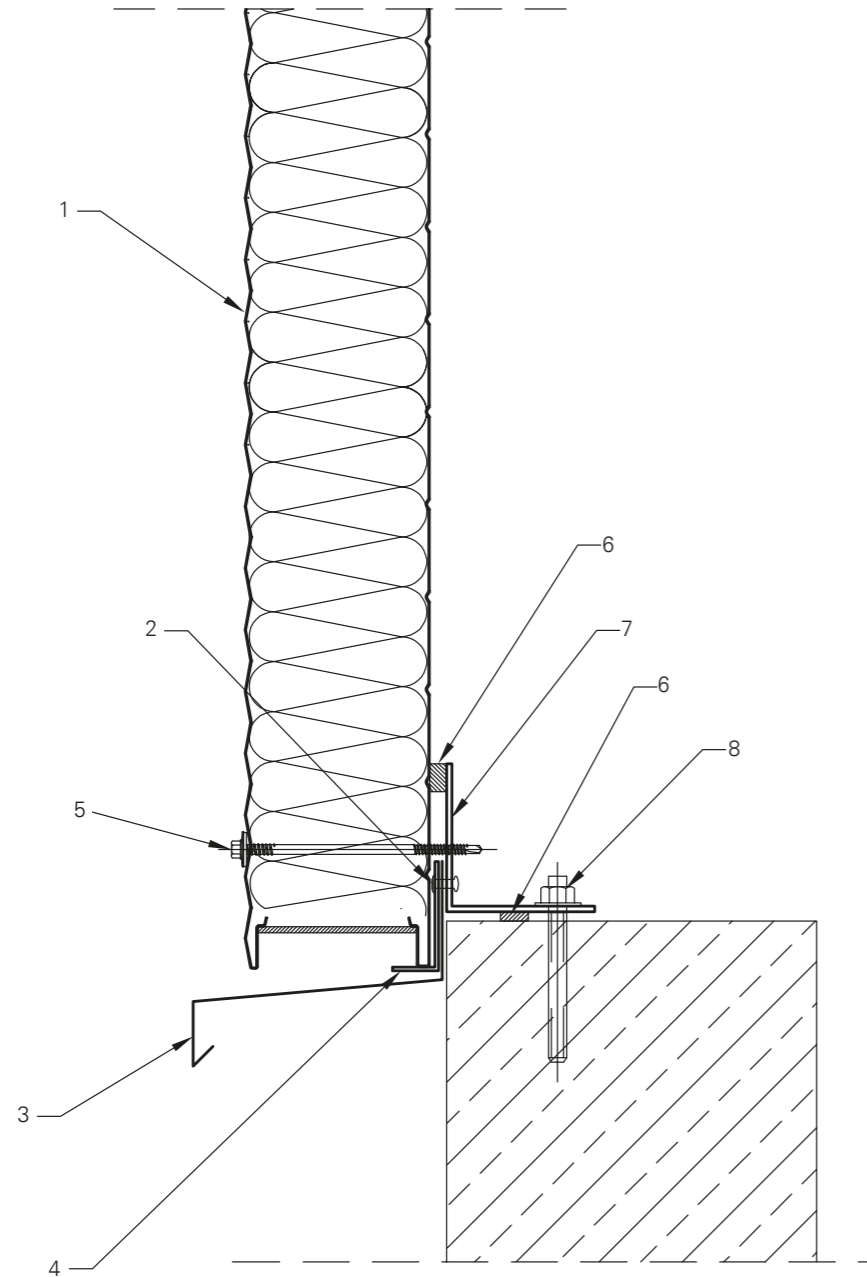
Arrangement of wall panels: vertical
 Applies to on-wall panels: HPP PSF
 DET. W.01.02



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] plinth drip cap
- [4] L-profile - at the panels joint
- [5] panel fastener
- [6] sealing tape
- [7] profile acc. to steel structure
- [8] anchor acc. to steel structure

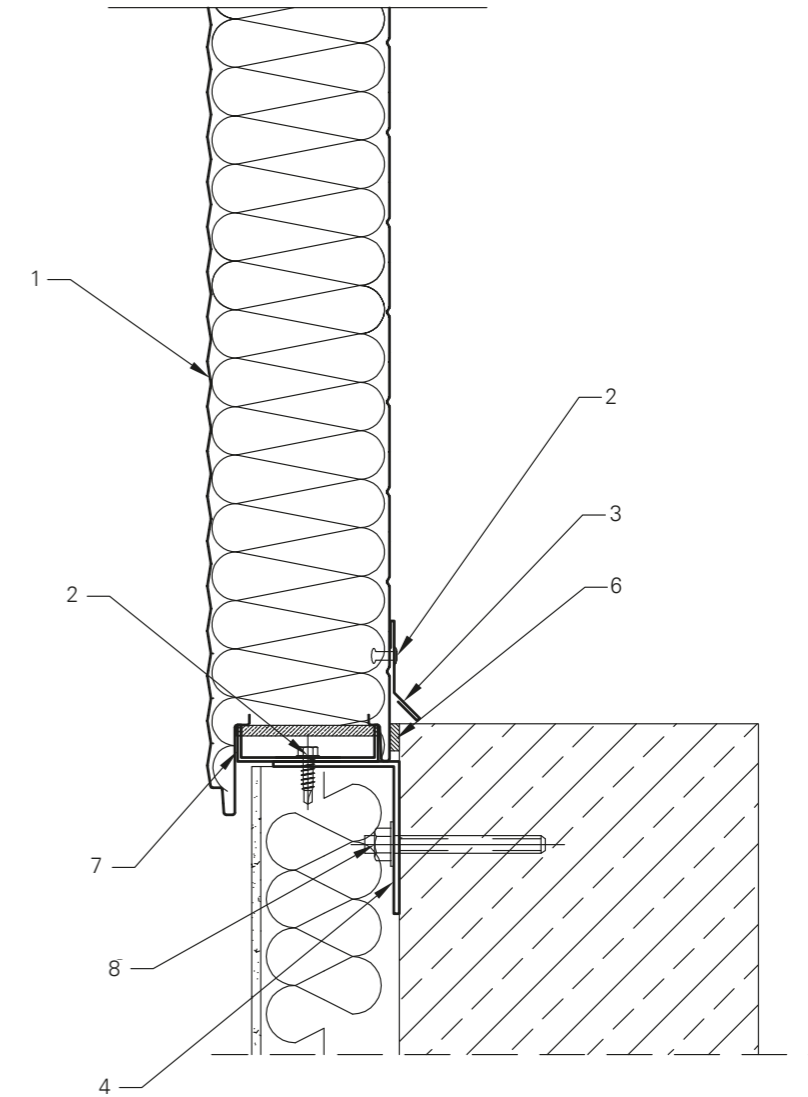
Technical data

Arrangement of wall panels: horizontal
 Applies to on-wall panels: HPP PSD, HPP MDD
 DET. W.01.03



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] plinth drip cap
- [4] profile L - every 1000 mm
- [5] panel fastener - every 1000 mm
- [6] sealing tape
- [7] profile acc. to steel structure
- [8] anchor acc. to steel structure

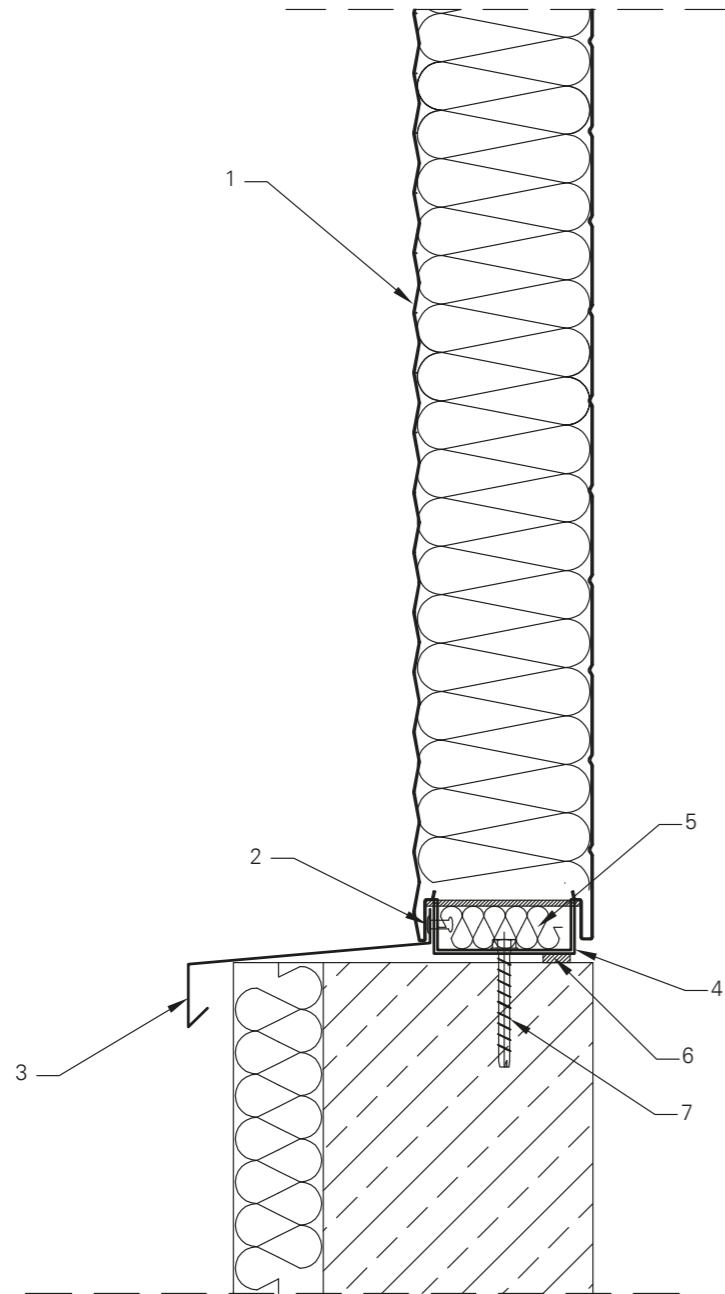
Arrangement of wall panels: horizontal
 Applies to wall panels: HPP PSF
 DET. W.01.04



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] internal flashing
- [4] L-profile - every 1000 mm
- [6] sealing tape
- [7] U-profile
- [8] anchor M8 2 pieces per profile L

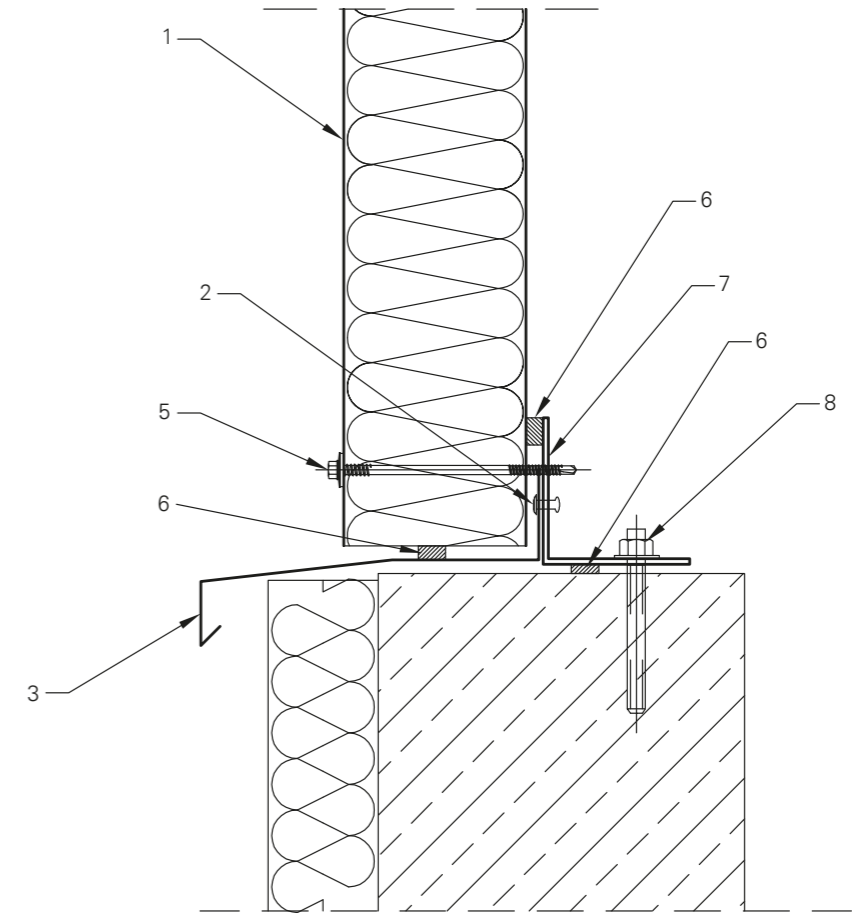
Technical data

Arrangement of wall panels: horizontal
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.01.05



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] plinth drip cap
- [4] profile C
- [5] mineral wool
- [6] sealing tape
- [7] anchor

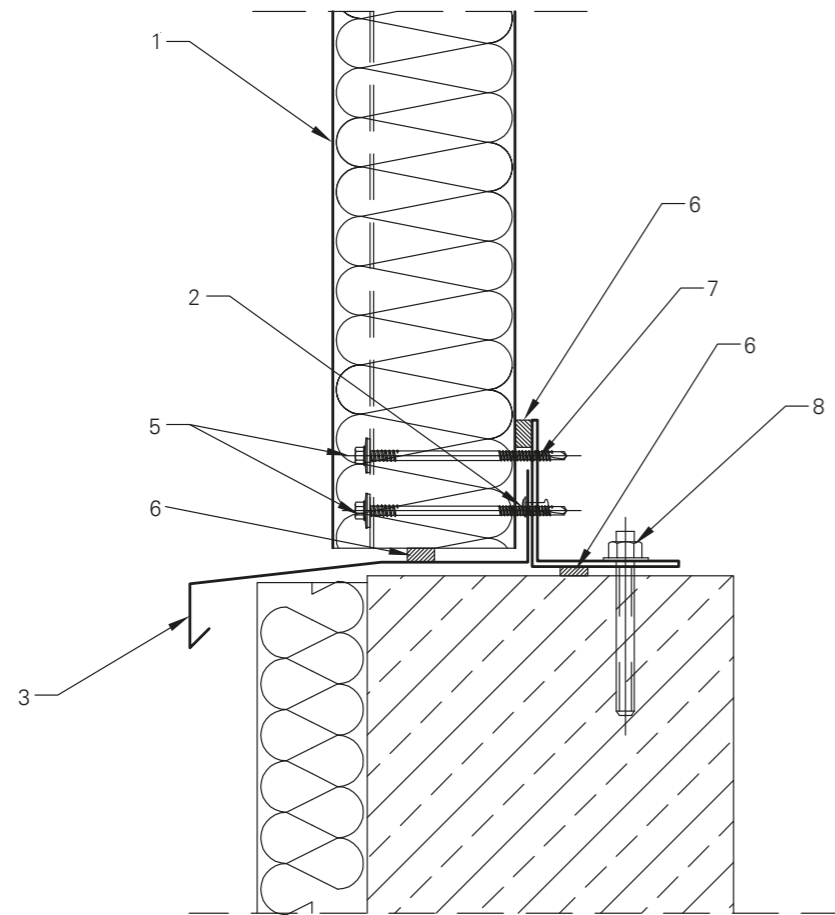
Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.01.06



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] plinth drip cap
- [5] panels fastener
- [6] sealing tape
- [7] profile acc. to steel structure
- [8] anchor acc. to steel structure

Technical data

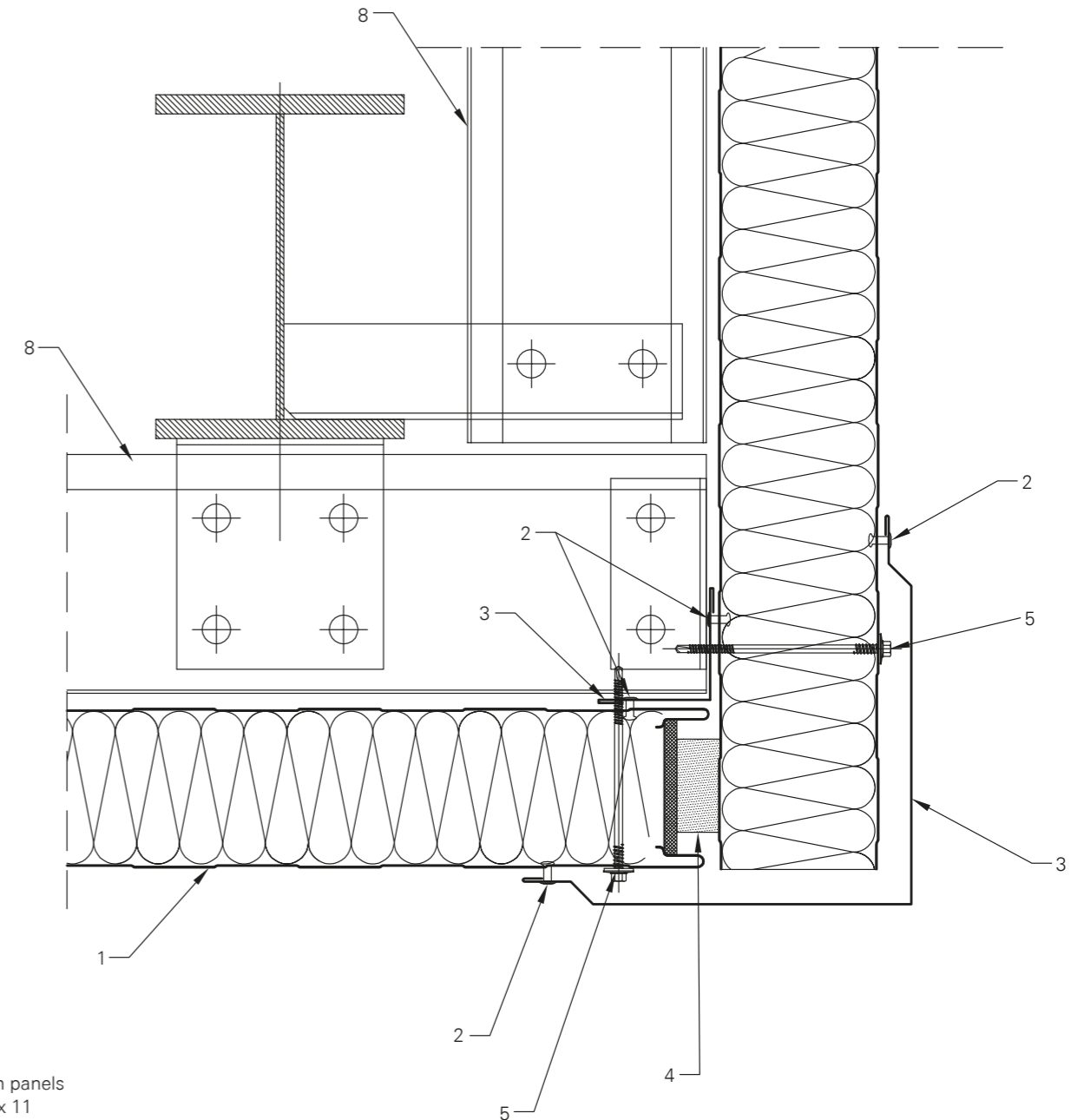
Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSF
 DET. W.01.07



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] plinth drip cap
- [5] panel fastener
- [6] sealing tape
- [7] profile acc. to steel structure
- [8] anchor acc. to steel structure

CORNER DETAILS

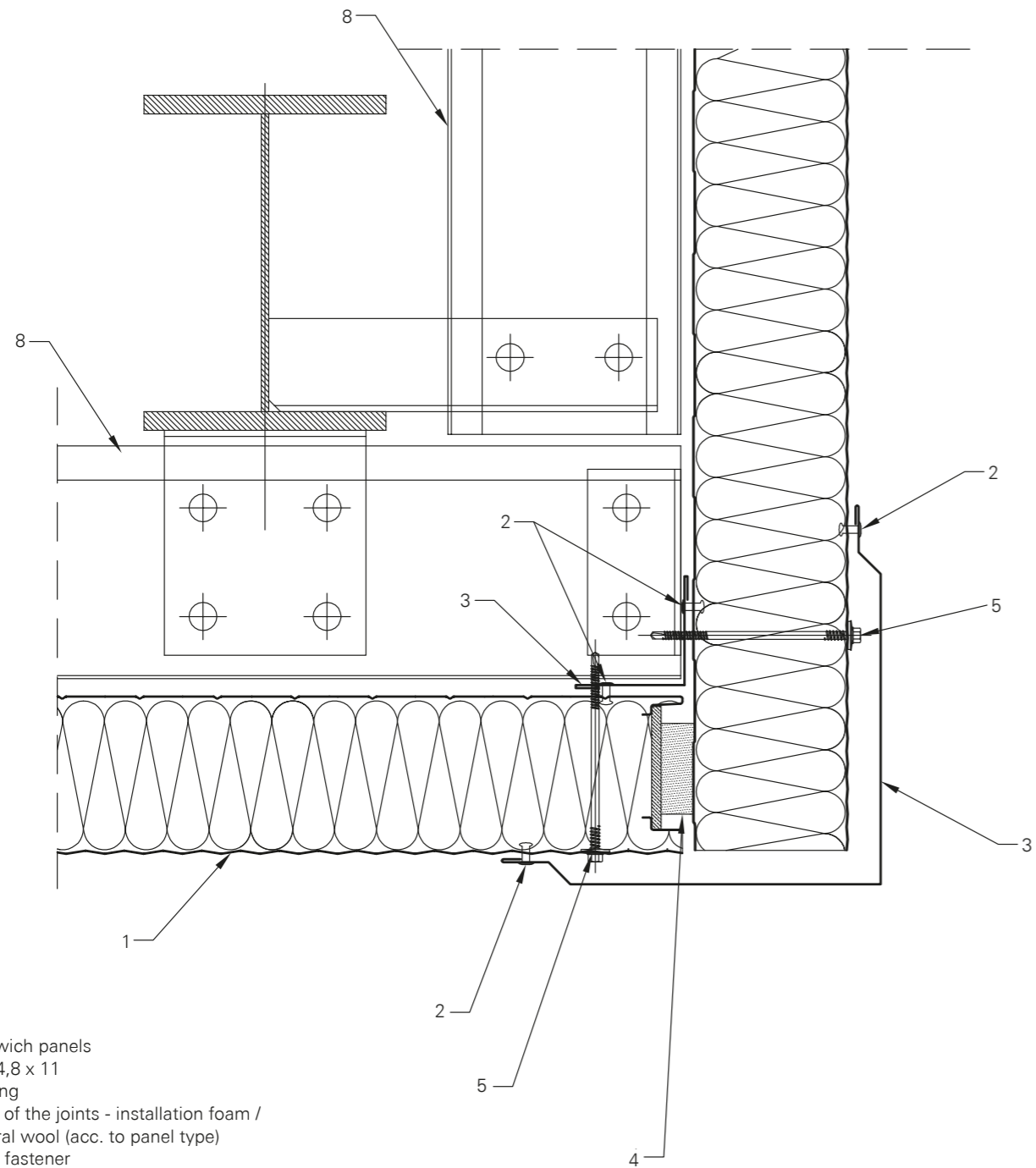
Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.03.01



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [8] wall girt

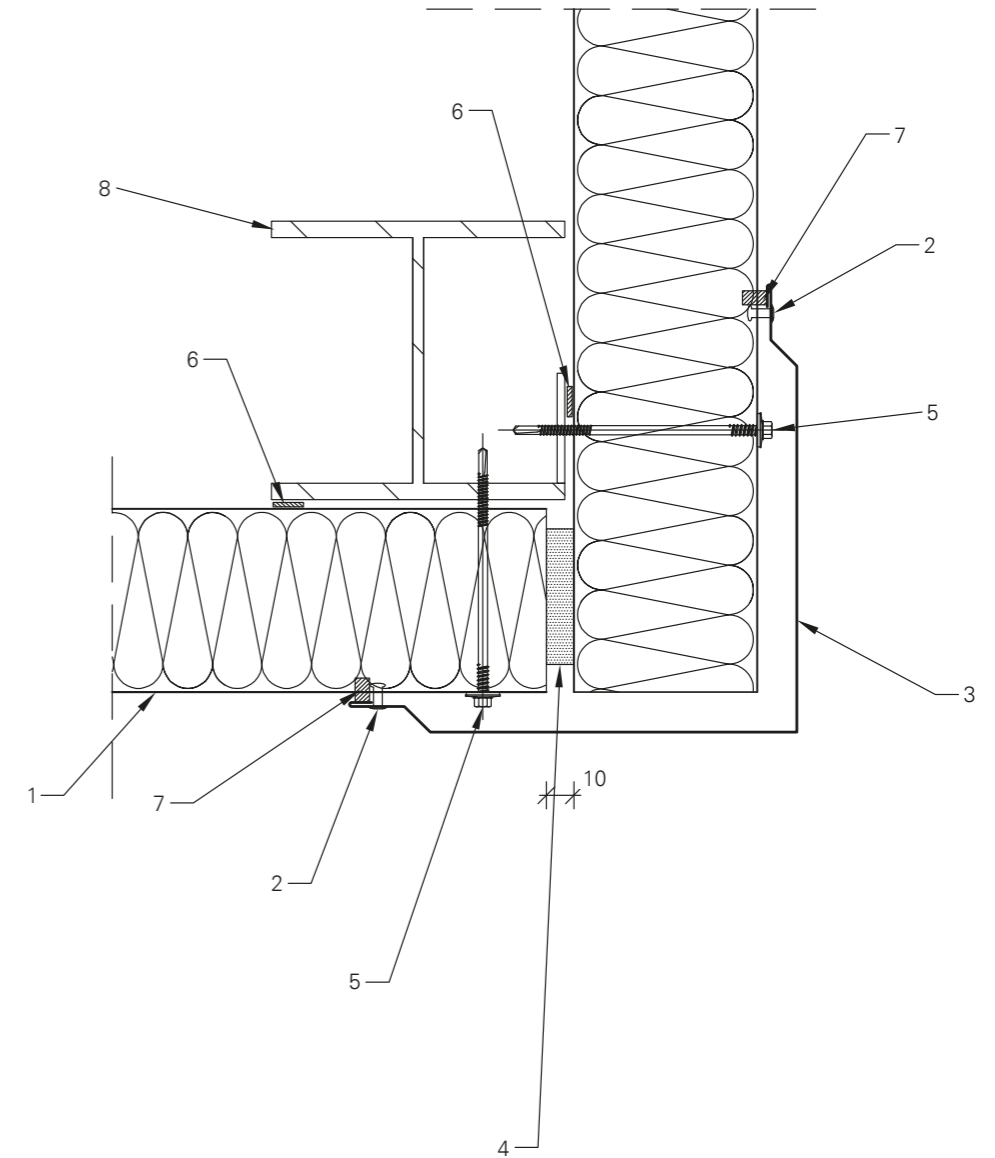
Technical data

Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSF
 DET. W.03.02



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [8] wall girt

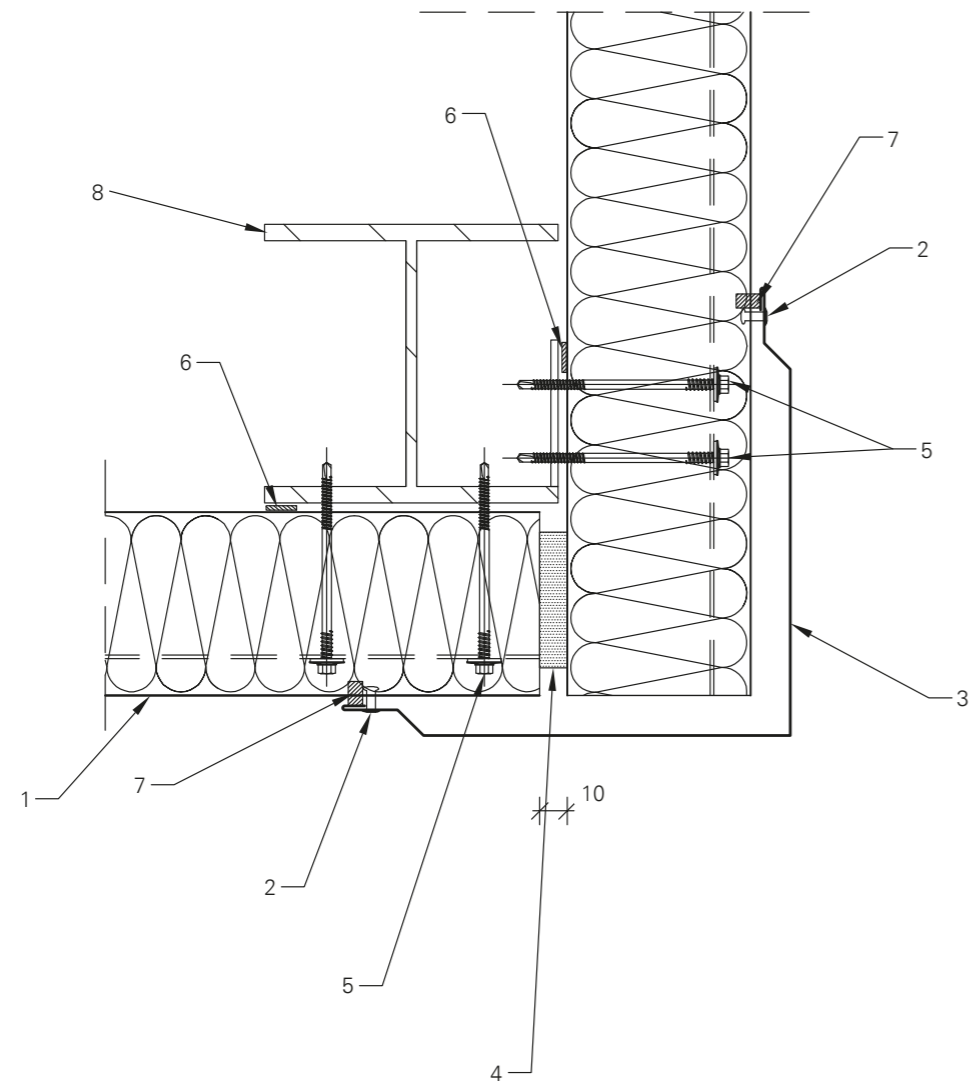
Arrangement of wall panels: horizontal
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.03.03



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] corner flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [6] sealing tape
- [7] silicone sealing compound
- [8] pillar

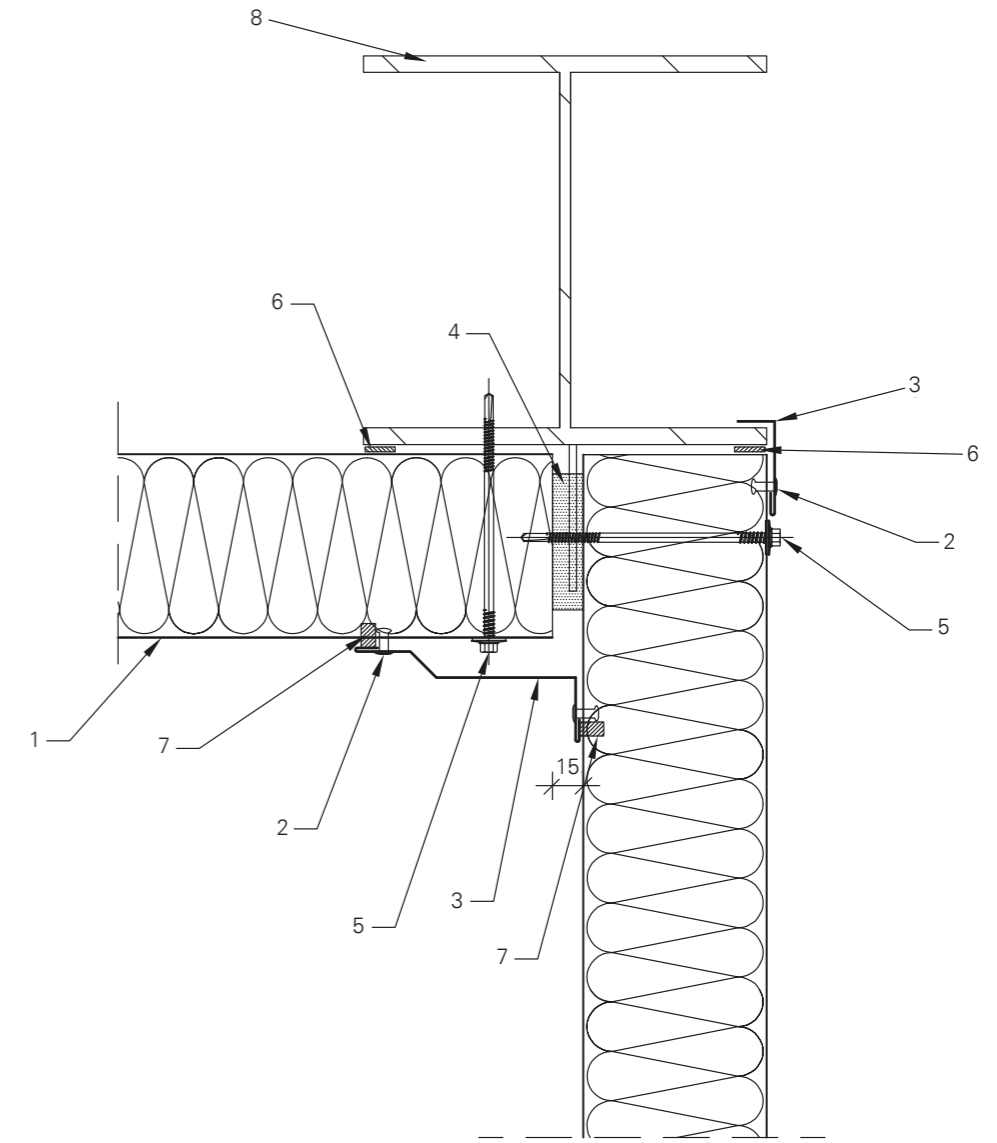
Technical data

Arrangement of wall panels: horizontal
 Applies to wall panels: HPP PSF
 DET. W.03.04



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] corner flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [7] silicone sealing compound
- [8] pillar

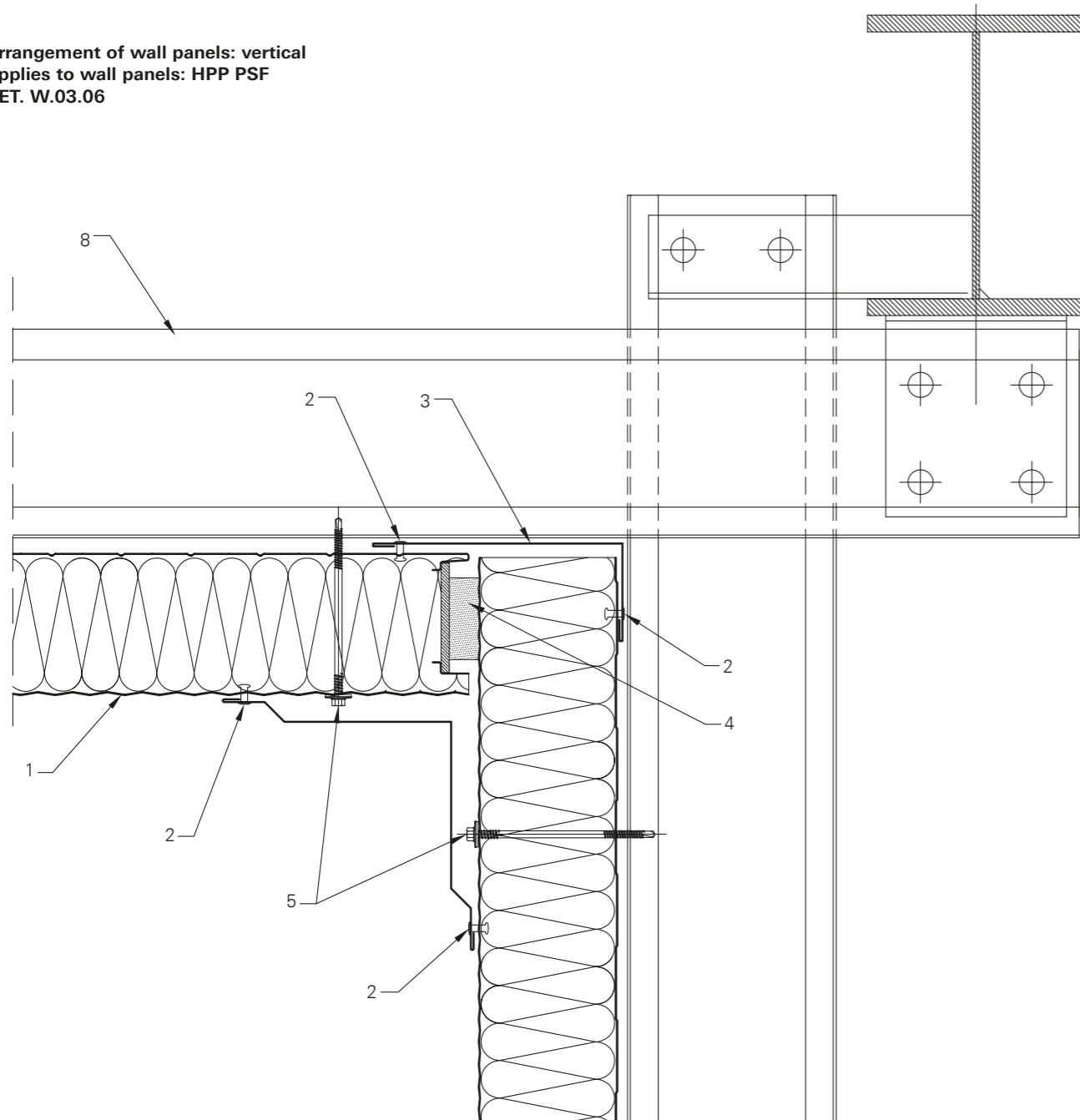
Arrangement of wall panels: horizontal
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.03.05



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] corner flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [6] sealing tape
- [7] silicone sealing compound
- [8] pillar

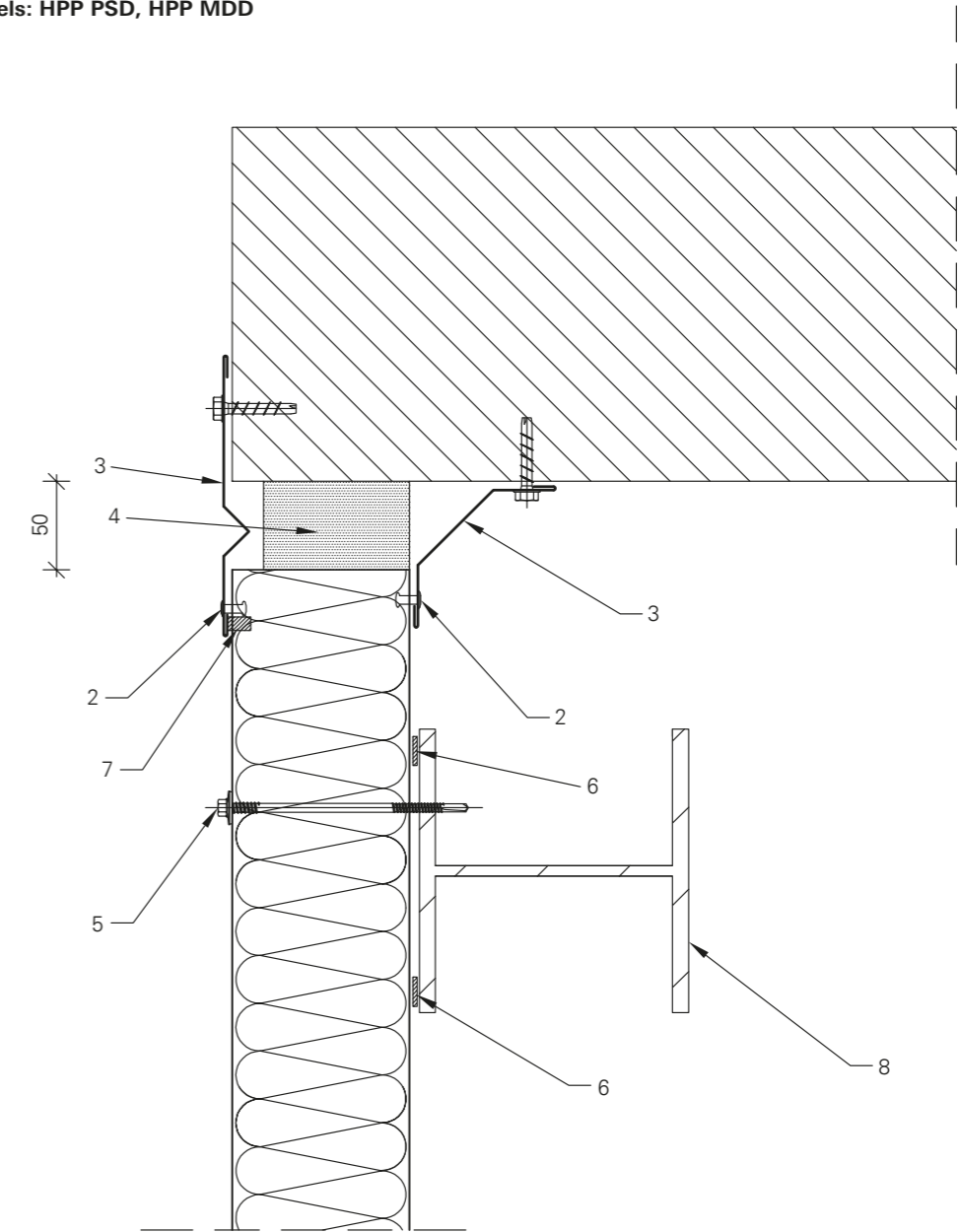
Technical data

Arrangement of wall panels: vertical
Applies to wall panels: HPP PSF
DET. W.03.06



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [7] silicone sealing compound
- [8] wall girt

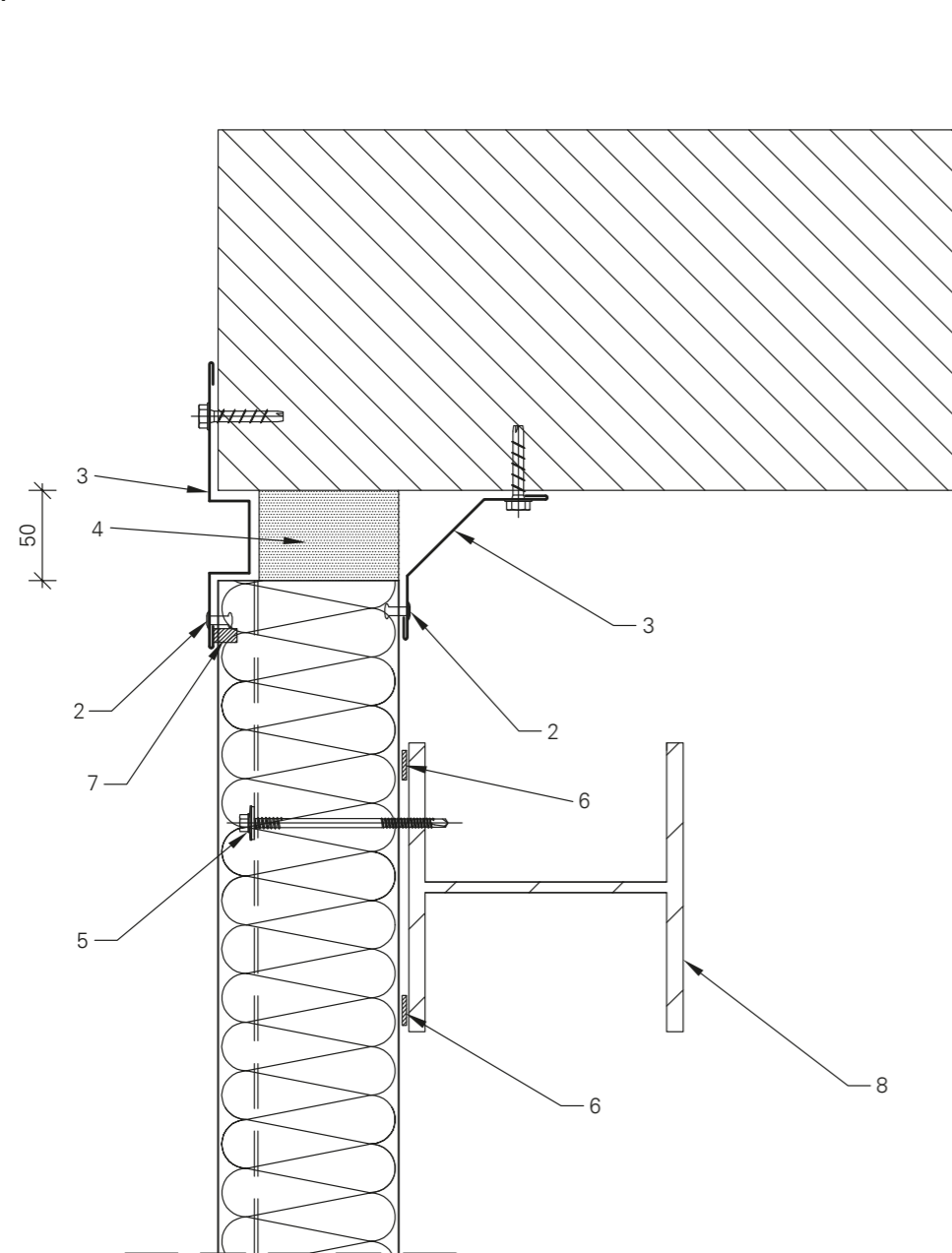
Arrangement of wall panels: horizontal
Applies to wall panels: HPP PSD, HPP MDD
DET. W.03.07



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [6] sealing tape
- [7] silicone sealing compound
- [8] pillar

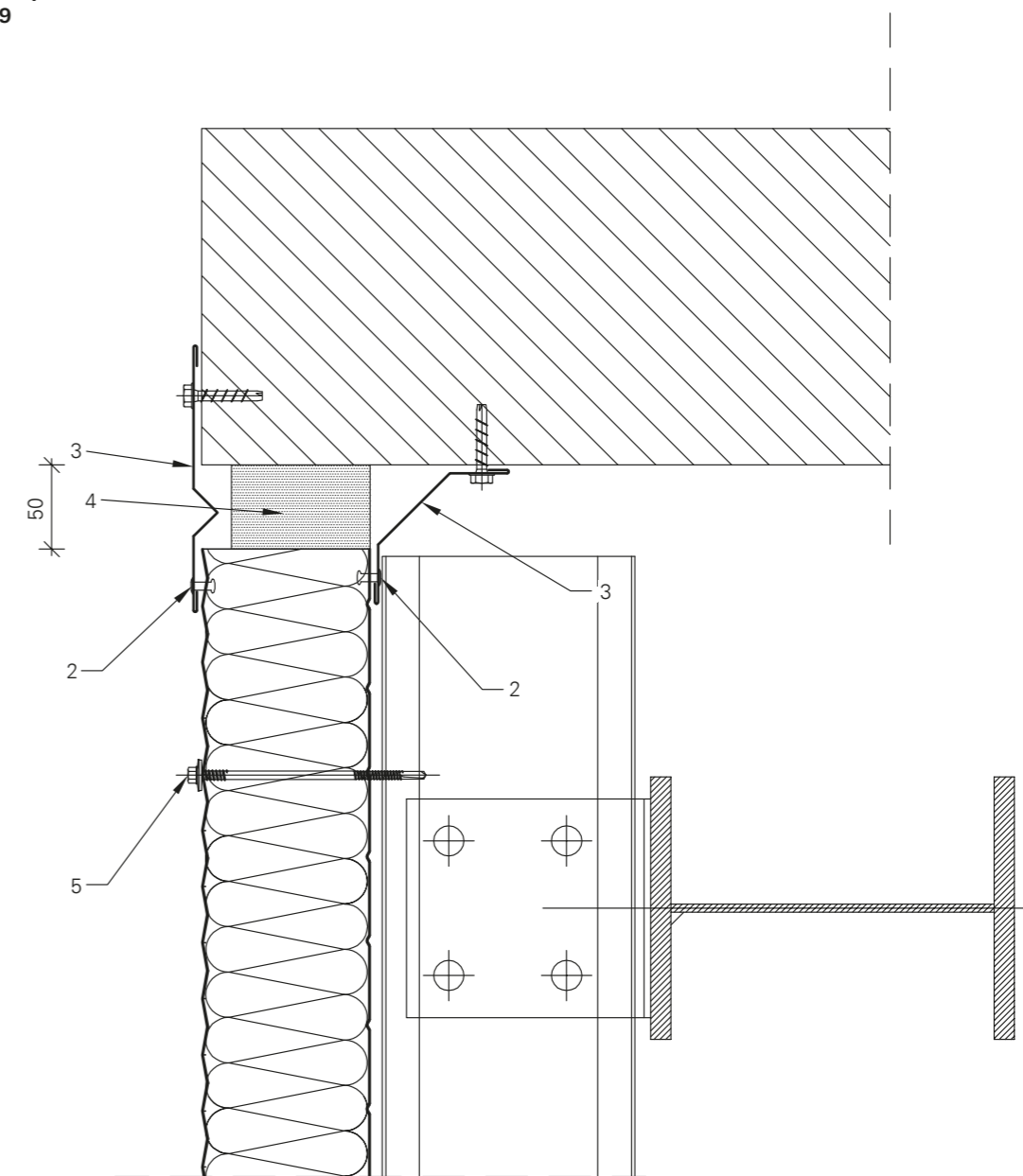
Technical data

Arrangement of wall panels: horizontal
Applies to wall panels: HPP PSF
DET. W.03.08



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [6] sealing tape
- [7] silicone sealing compound
- [8] pillar

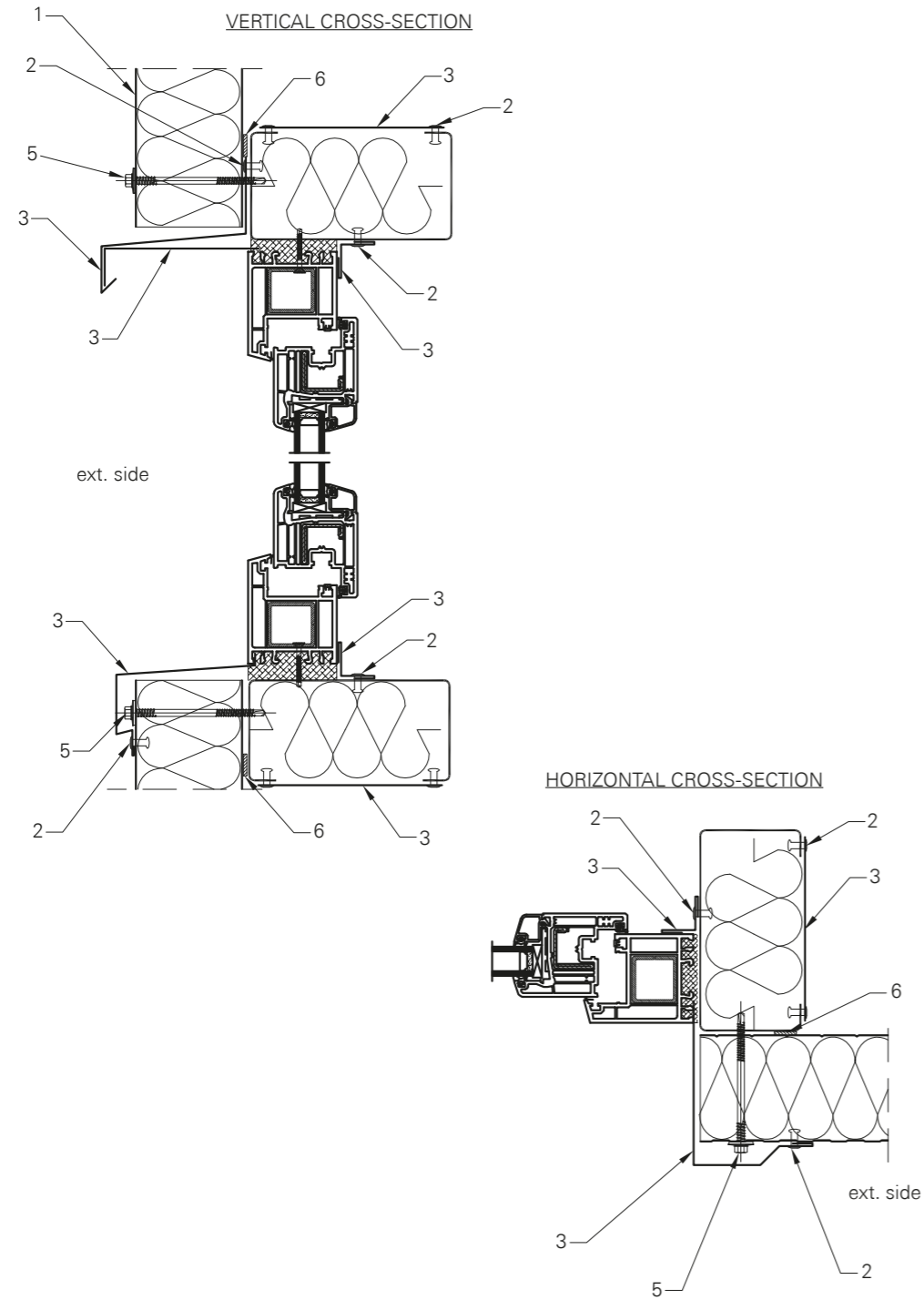
Arrangement of wall panels: vertical
Applies to wall panels: HPP PSD, HPP MDD
DET. W.03.09



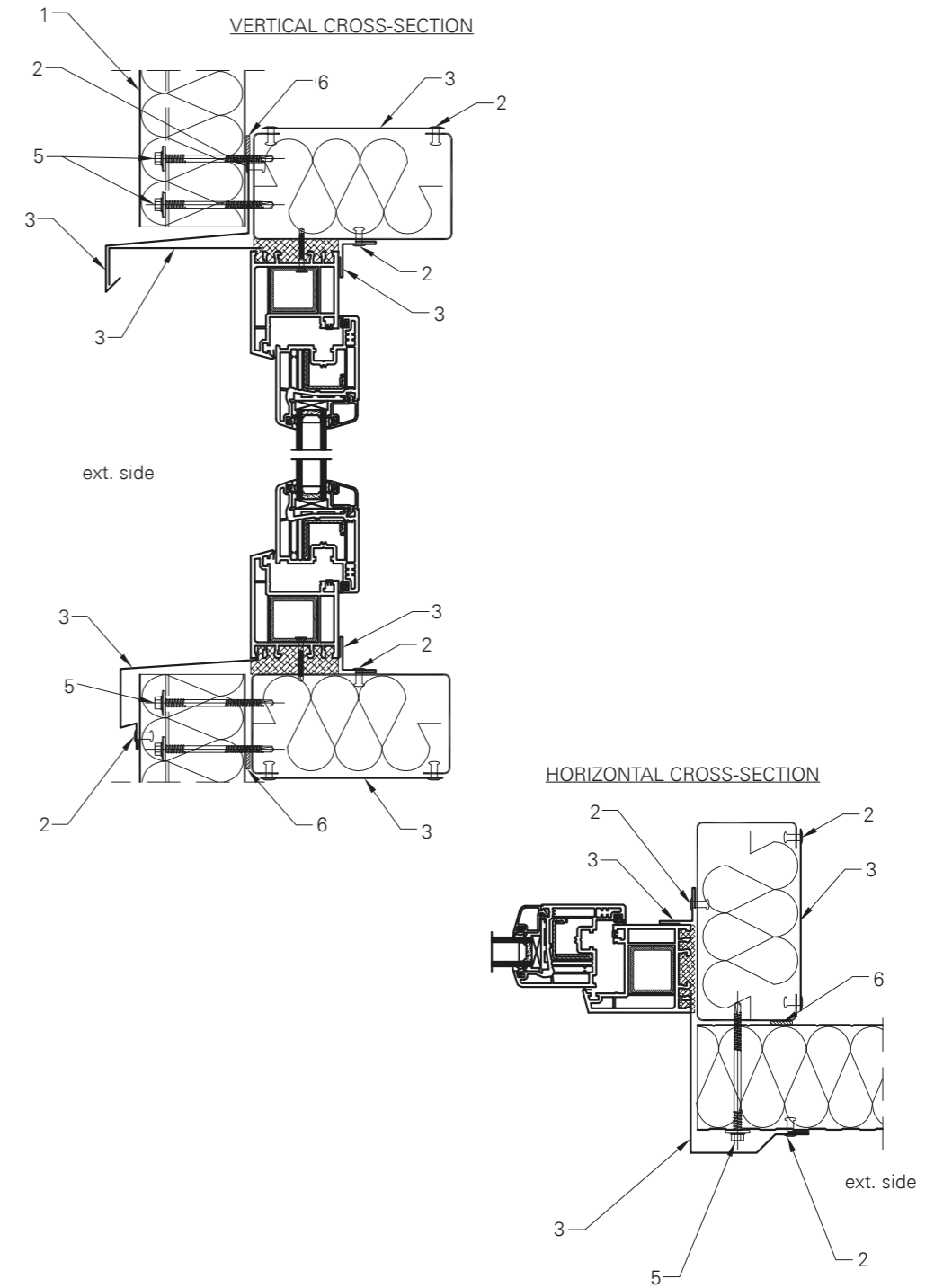
- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [6] sealing tape
- [8] pillar

WINDOW DETAILS

Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.04.01

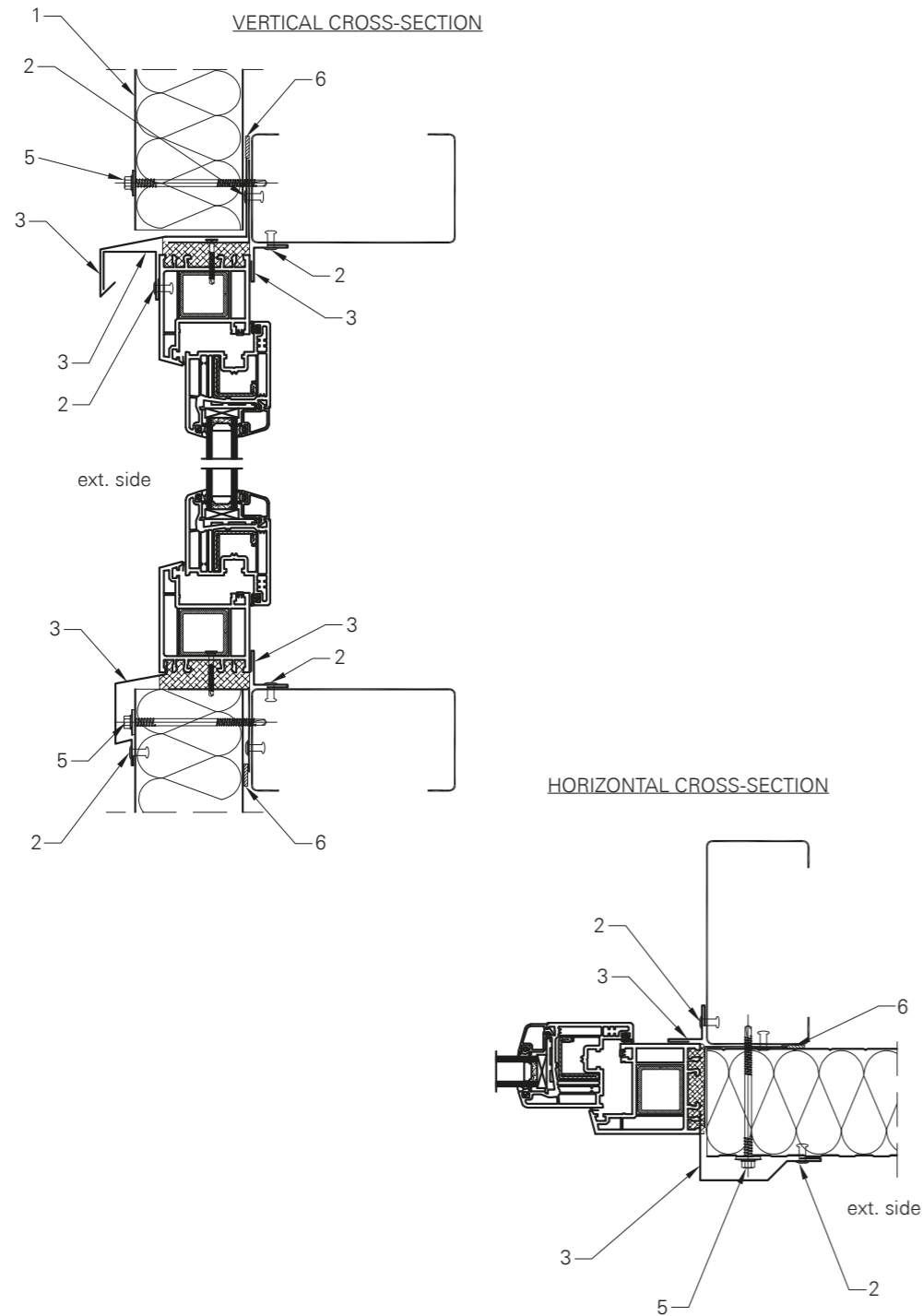


Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSF
 DET. W.04.02

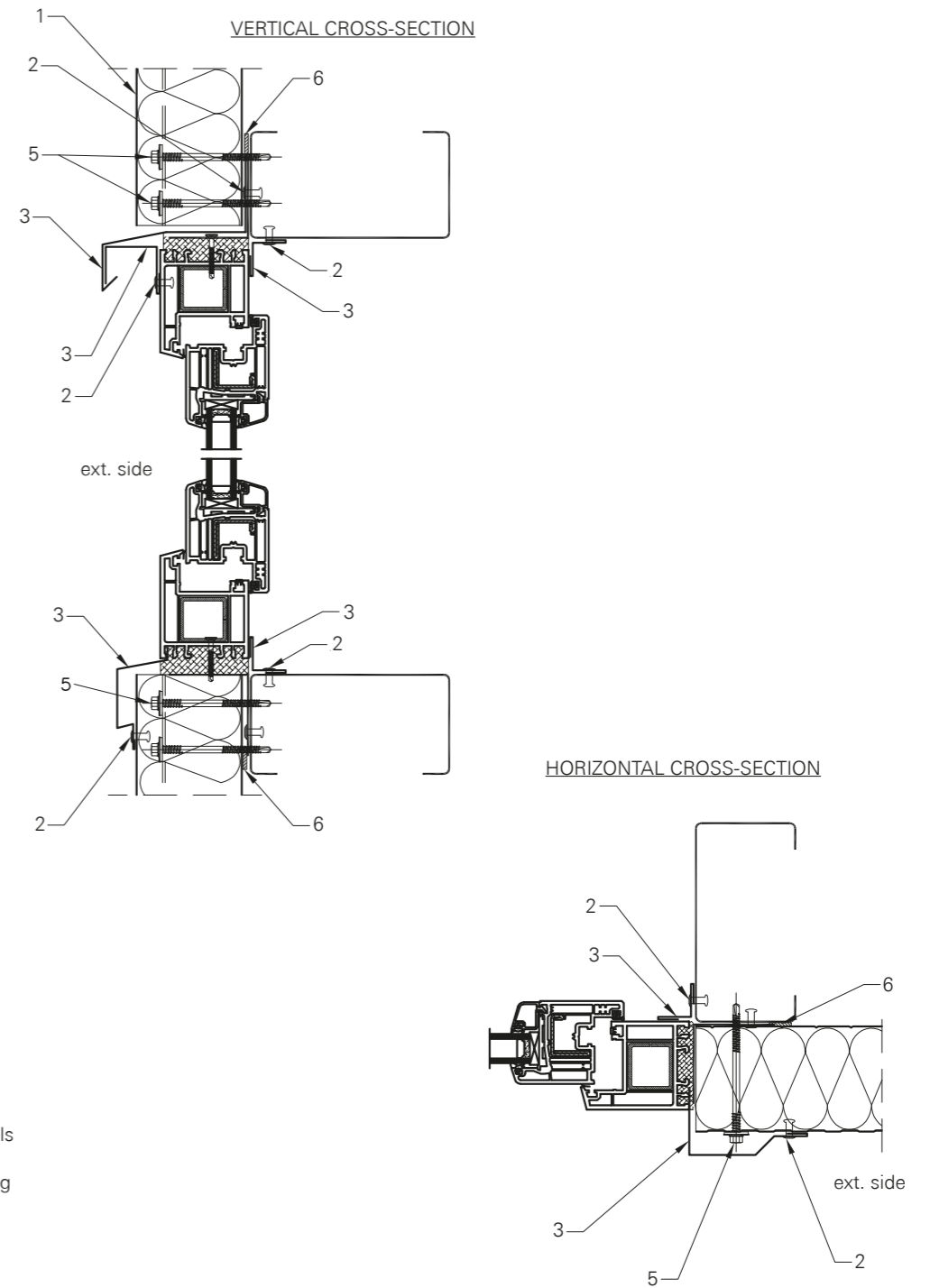


Technical data

Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.04.03

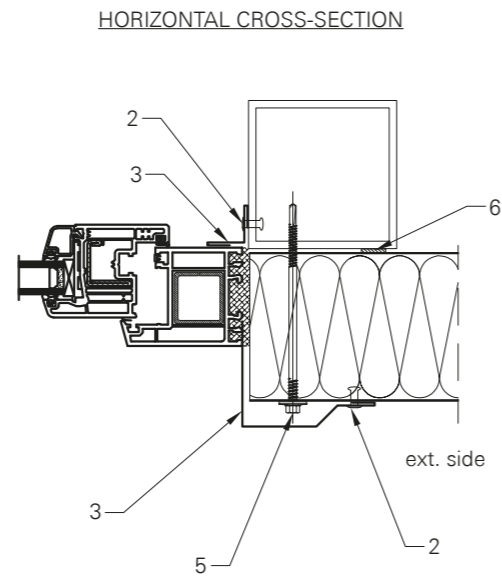
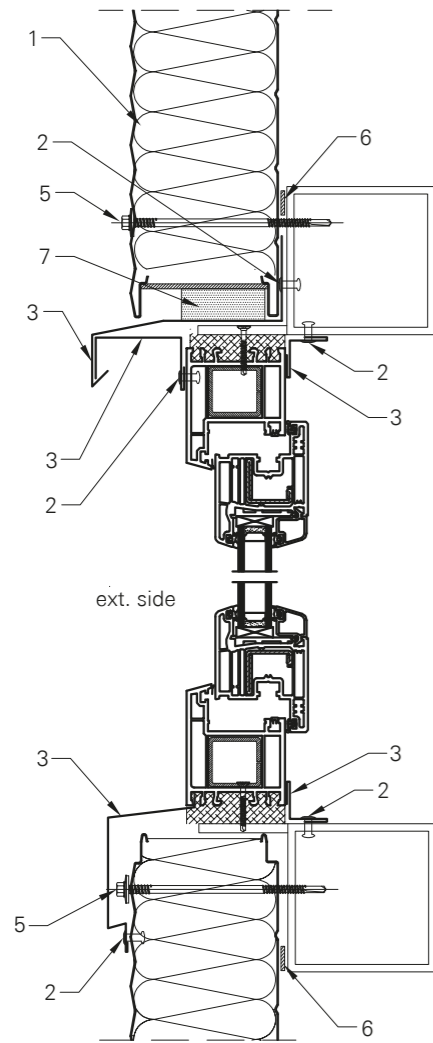


Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSF
 DET. W.04.04



Technical data

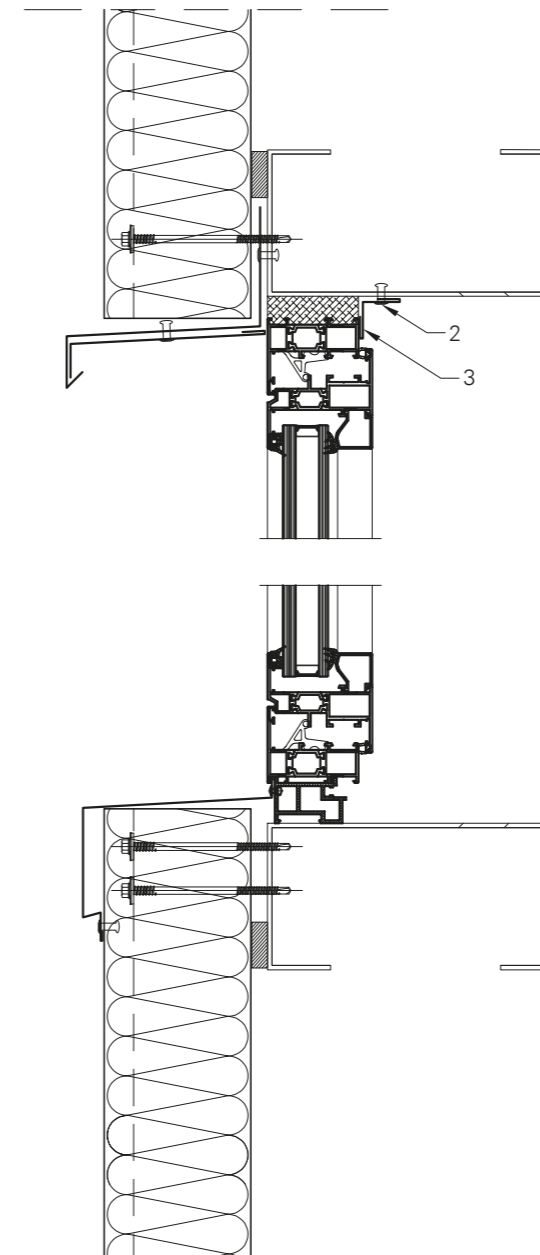
Arrangement of wall panels: horizontal
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.04.05



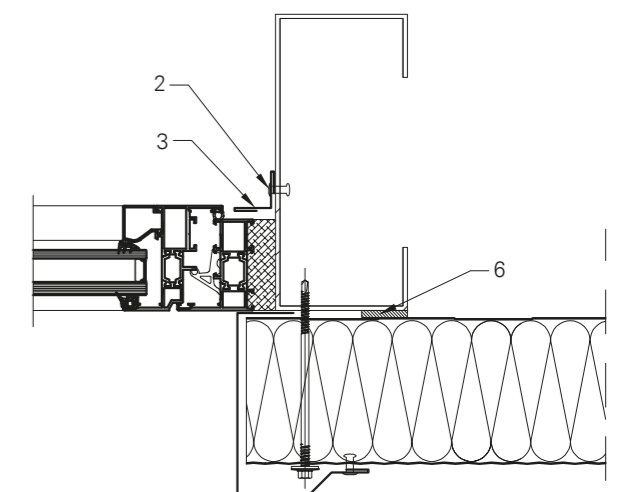
- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] window flashing
- [5] panel fastener
- [6] sealing tape
- [7] thermal-block or expanding band seal
- [8] wall girt

Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSF
 DET. W.04.06

VERTICAL CROSS-SECTION



HORIZONTAL CROSS-SECTION

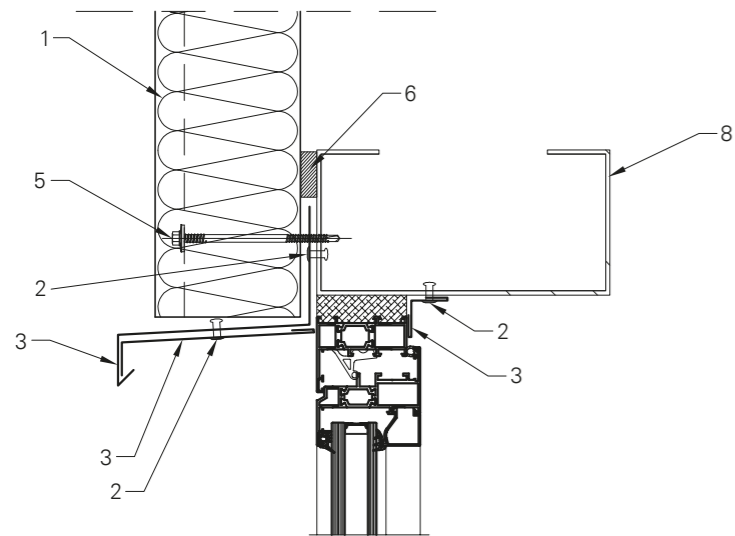


- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] window flashing
- [5] panel fastener
- [6] sealing tape
- [8] wall girt

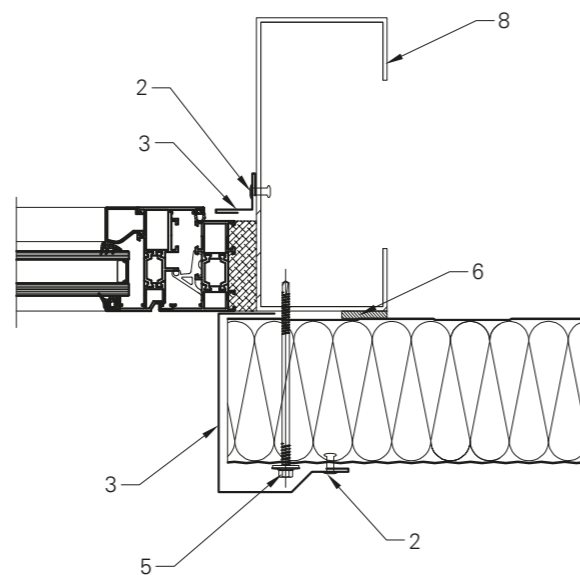
DOOR DETAILS

Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSF
 DET. W.05.01

VERTICAL CROSS-SECTION



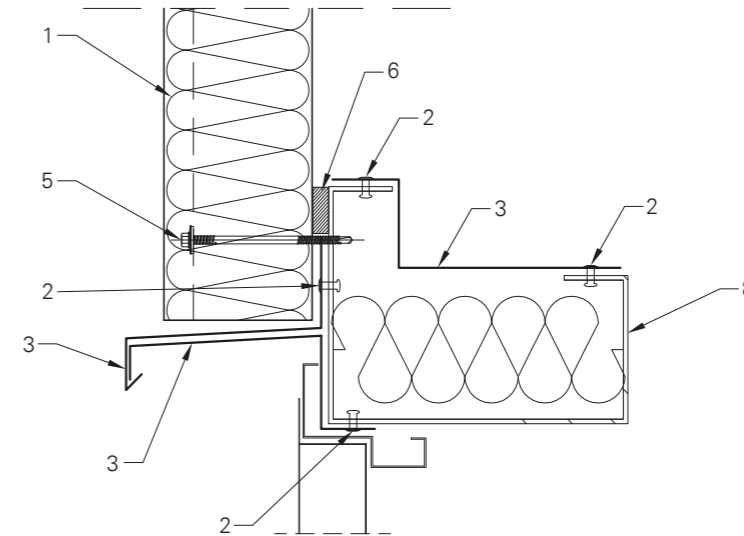
HORIZONTAL CROSS-SECTION



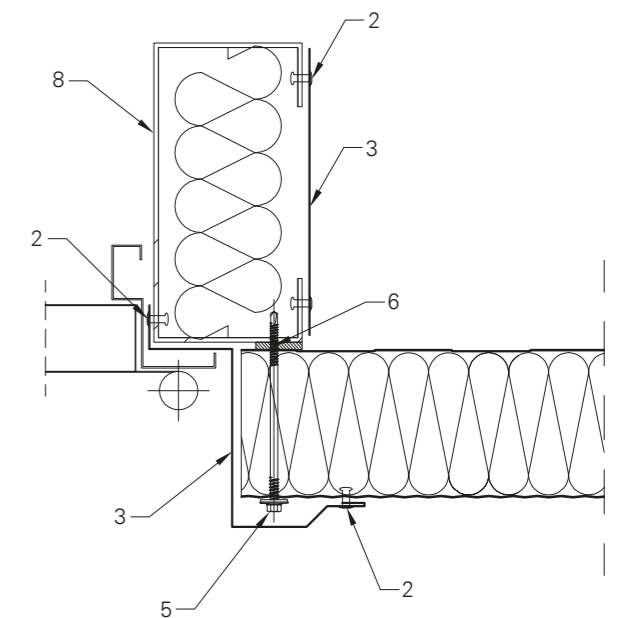
- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] window flashing
- [5] panel fastener
- [6] sealing tape
- [8] door girt

Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSF
 DET. W.05.02

VERTICAL CROSS-SECTION



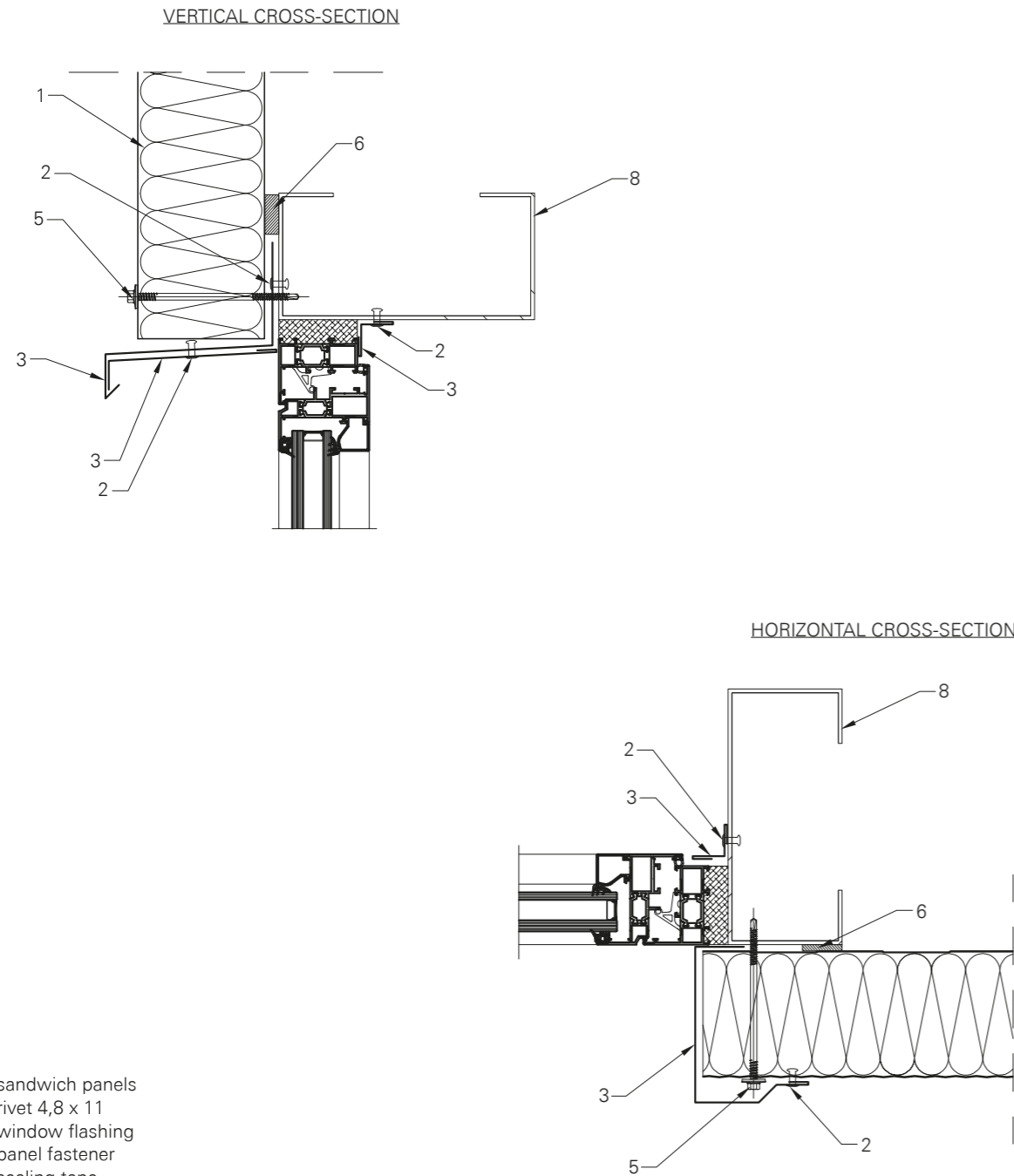
HORIZONTAL CROSS-SECTION



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] window flashing
- [5] panel fastener
- [6] sealing tape
- [8] door girt

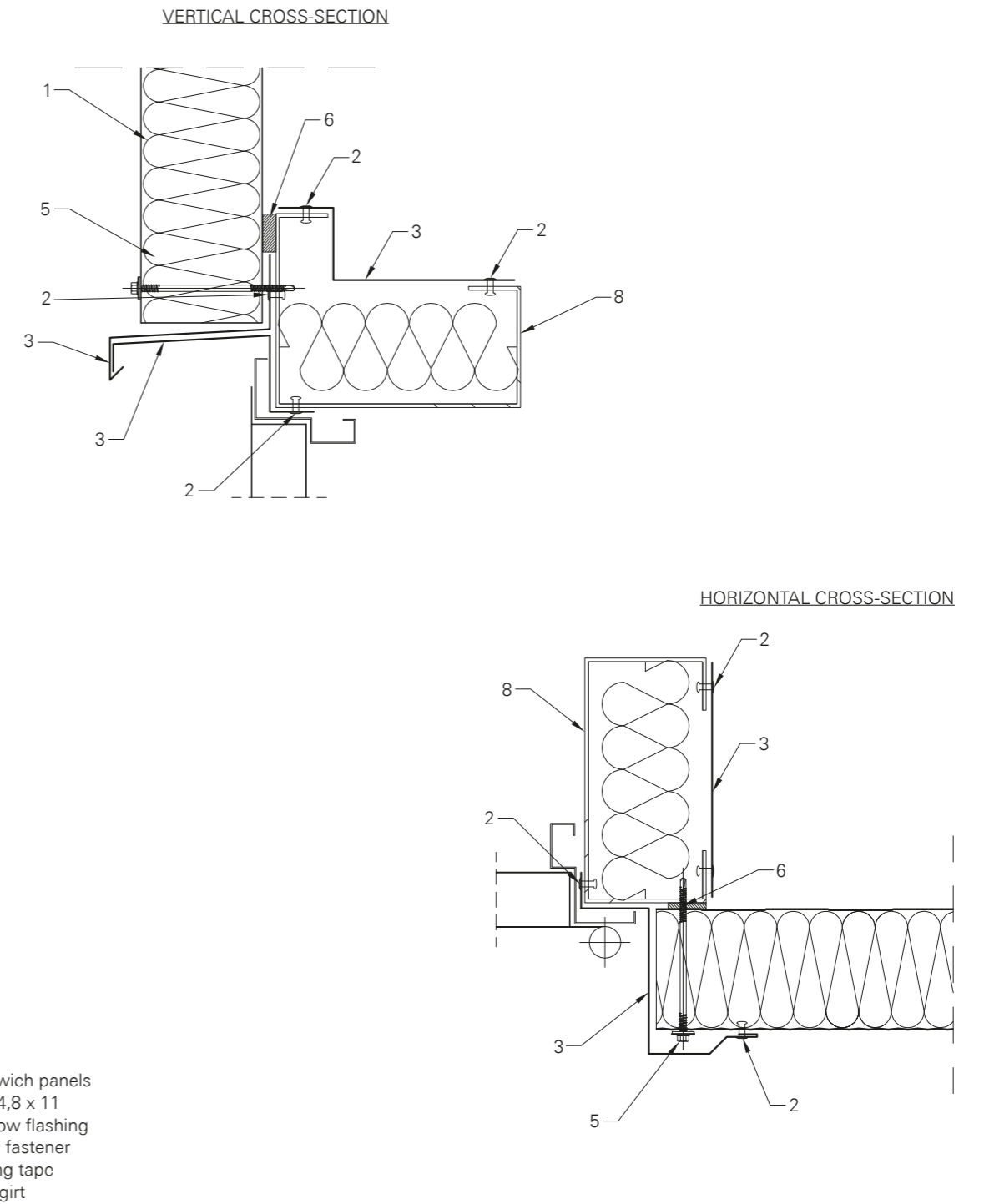
Technical data

Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.05.03



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] window flashing
- [5] panel fastener
- [6] sealing tape
- [8] door girt

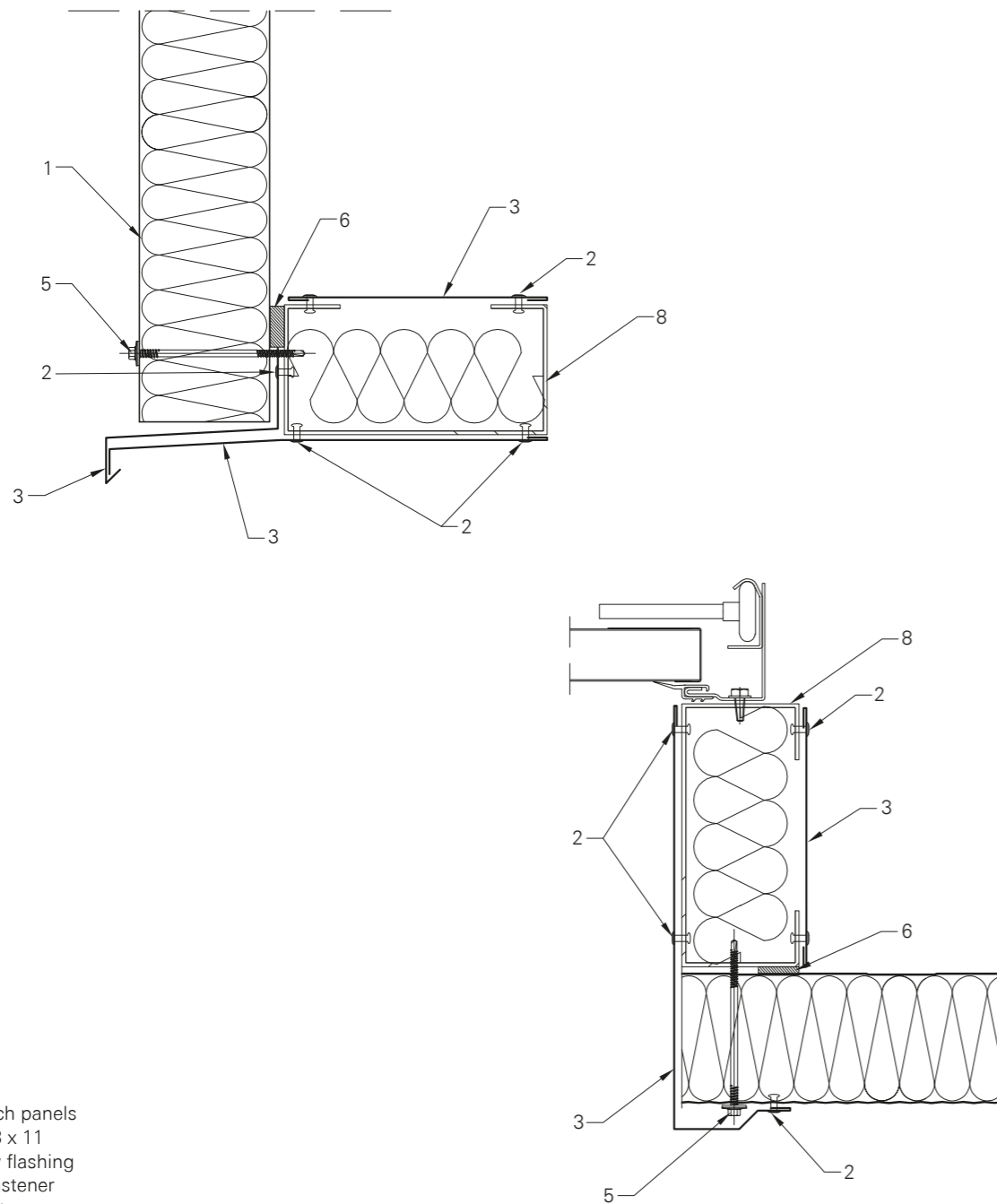
Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.05.04



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] window flashing
- [5] panel fastener
- [6] sealing tape
- [8] door girt

GATE DETAILS

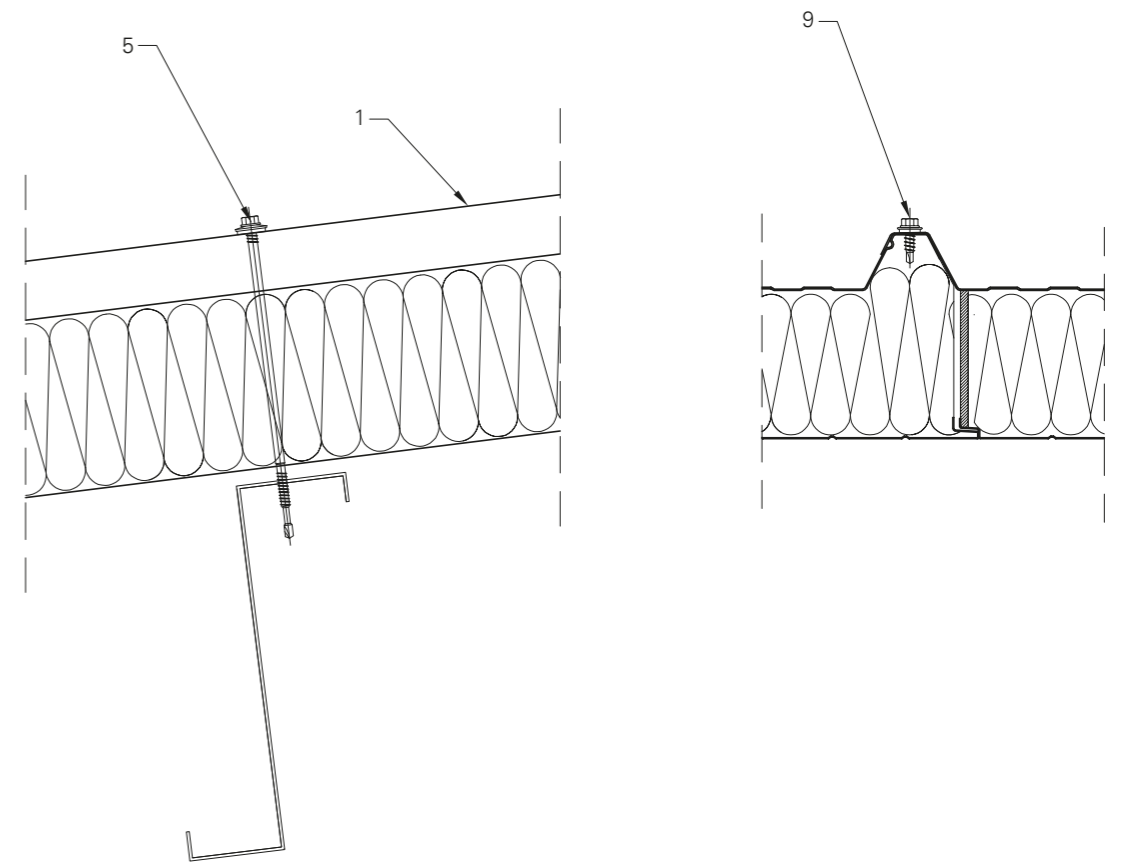
Arrangement of wall panels: vertical
 Applies to wall panels: HPP PSD, HPP MDD
 DET. W.06.01



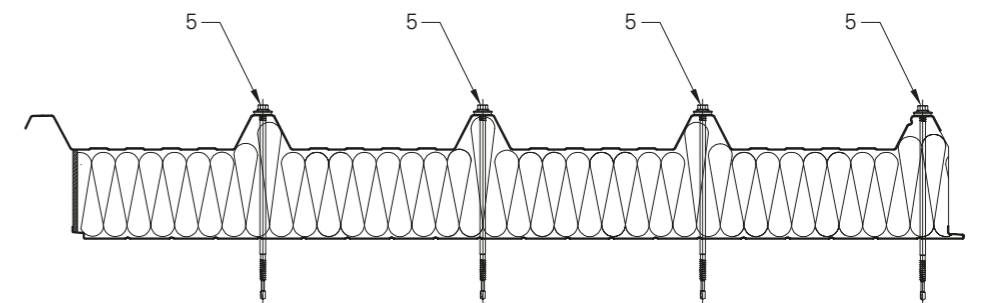
- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] window flashing
- [5] panel fastener
- [6] sealing tape
- [8] door girt

PANELS MOUNTING

Applies to roof panels HPT TD5, HPT MTD
 DET. R.01.01



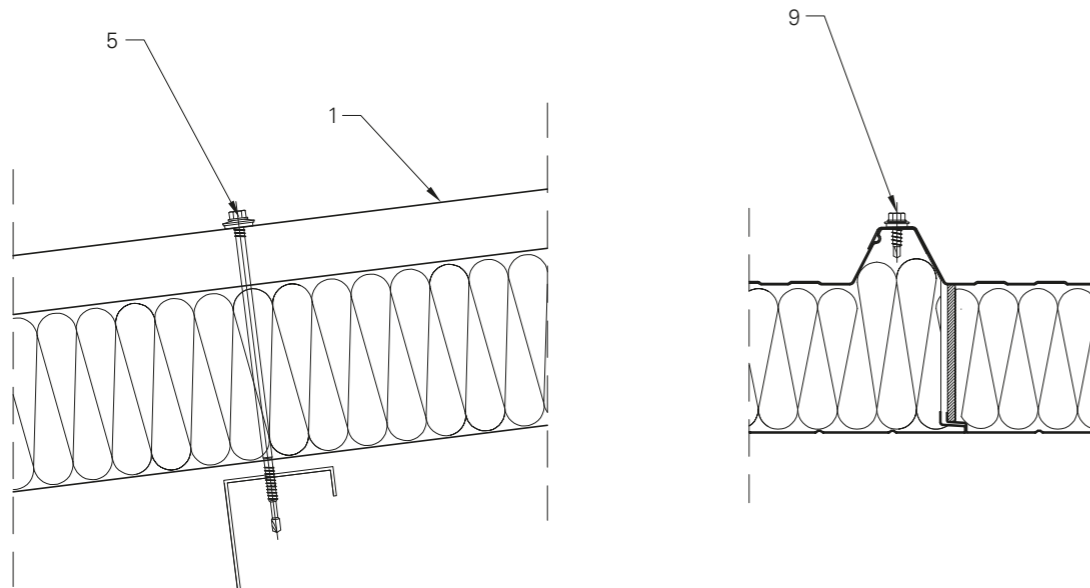
number of fasteners acc. to the designer's guidelines



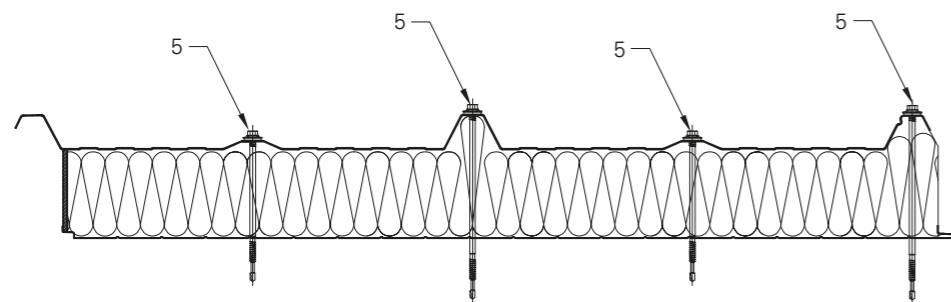
- [1] sandwich panels
- [5] panel fastener
- [9] 4.8x16 installation fastener with a Ø14 gasket every 400 mm

Technical data

Applies to roof panels HPT TD3
DET. R.01.02

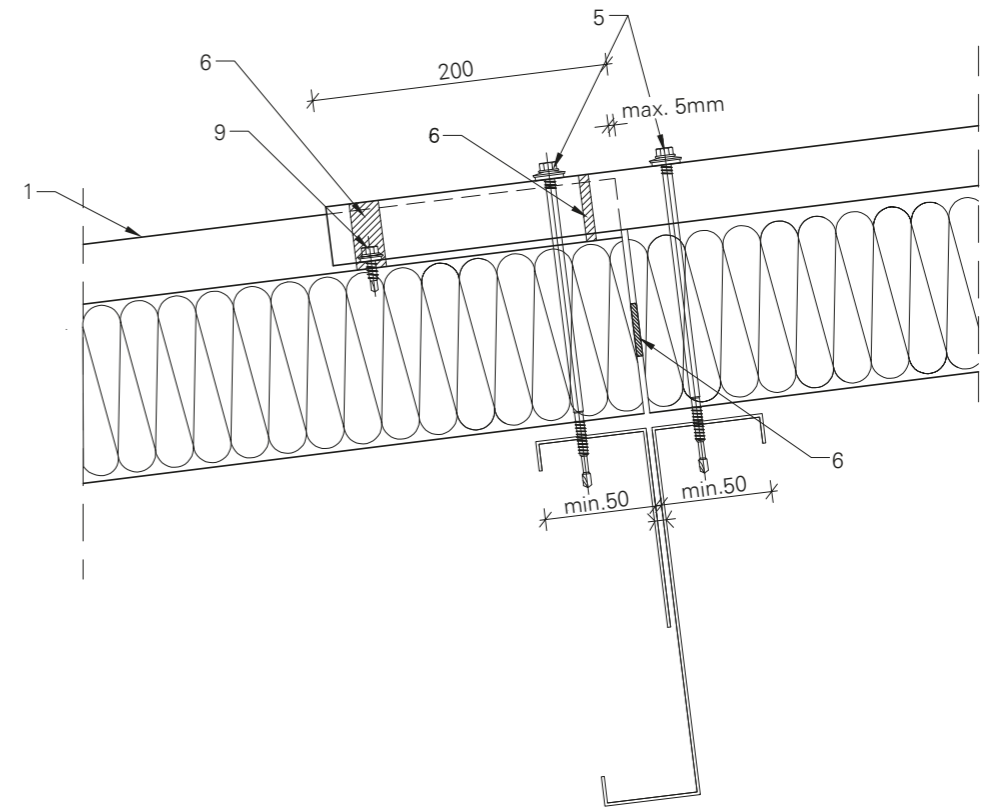


number of fasteners acc. to the designer's guidelines

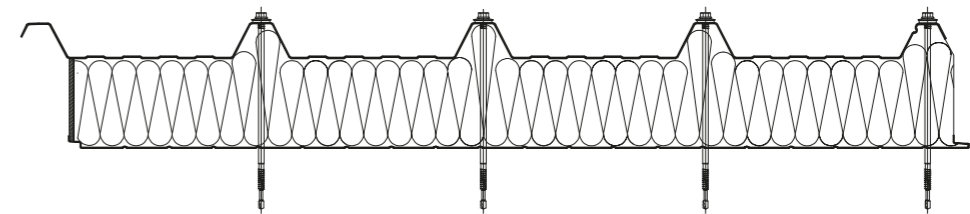


- [1] sandwich panels
- [5] panel fastener
- [9] 4.8x16 installation fastener with a Ø14 gasket every 400 mm

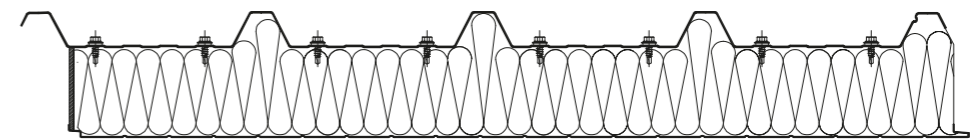
Applies to roof panels HPT TD5, HPT MTD
DET. R.01.03



panel fastener



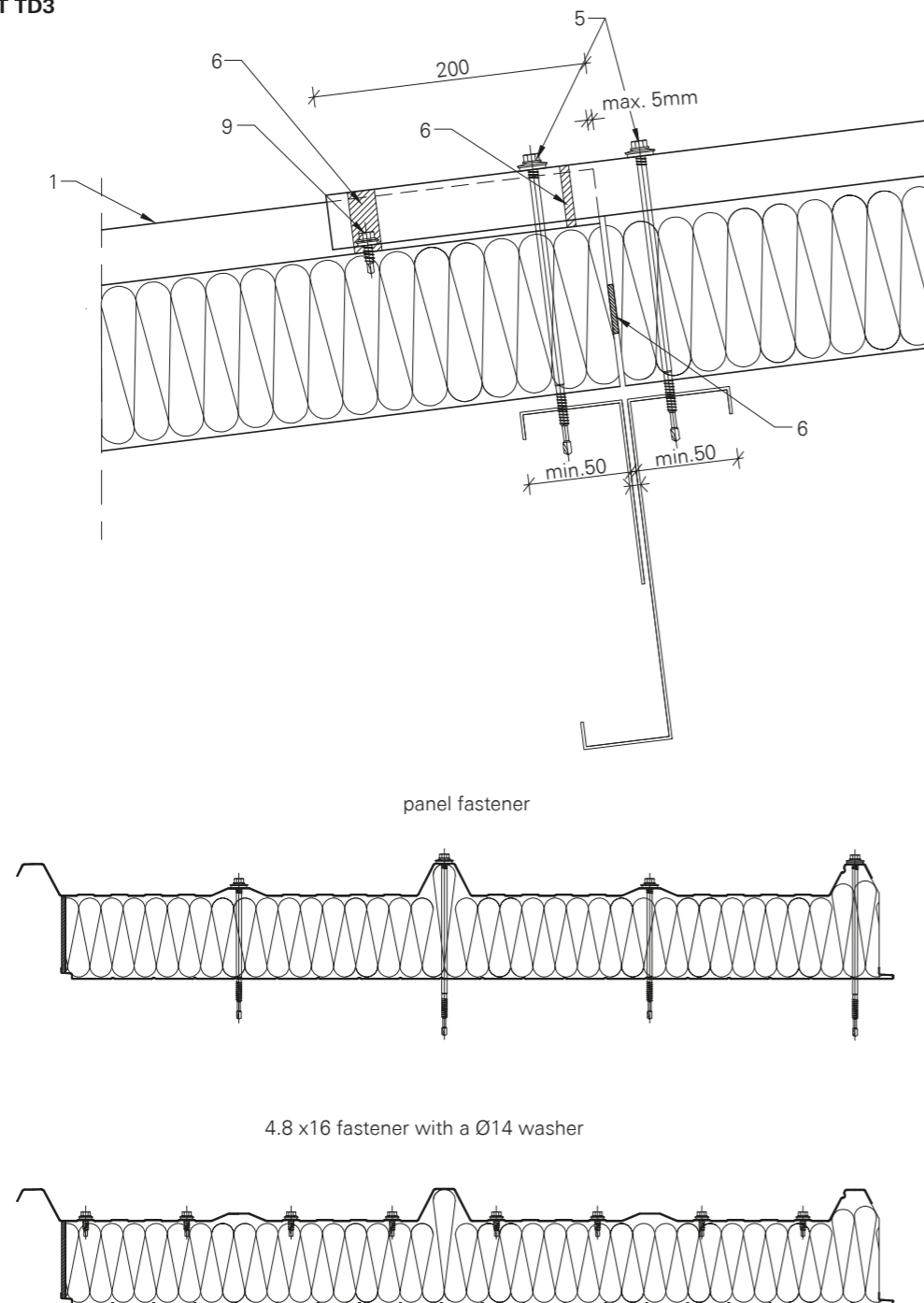
4.8 x16 fastener with a Ø14 washer



- [1] sandwich panels
- [5] panel fastener
- [6] sealing tape
- [9] 4.8x16 installation fastener with a Ø14 gasket every 400 mm

Technical data

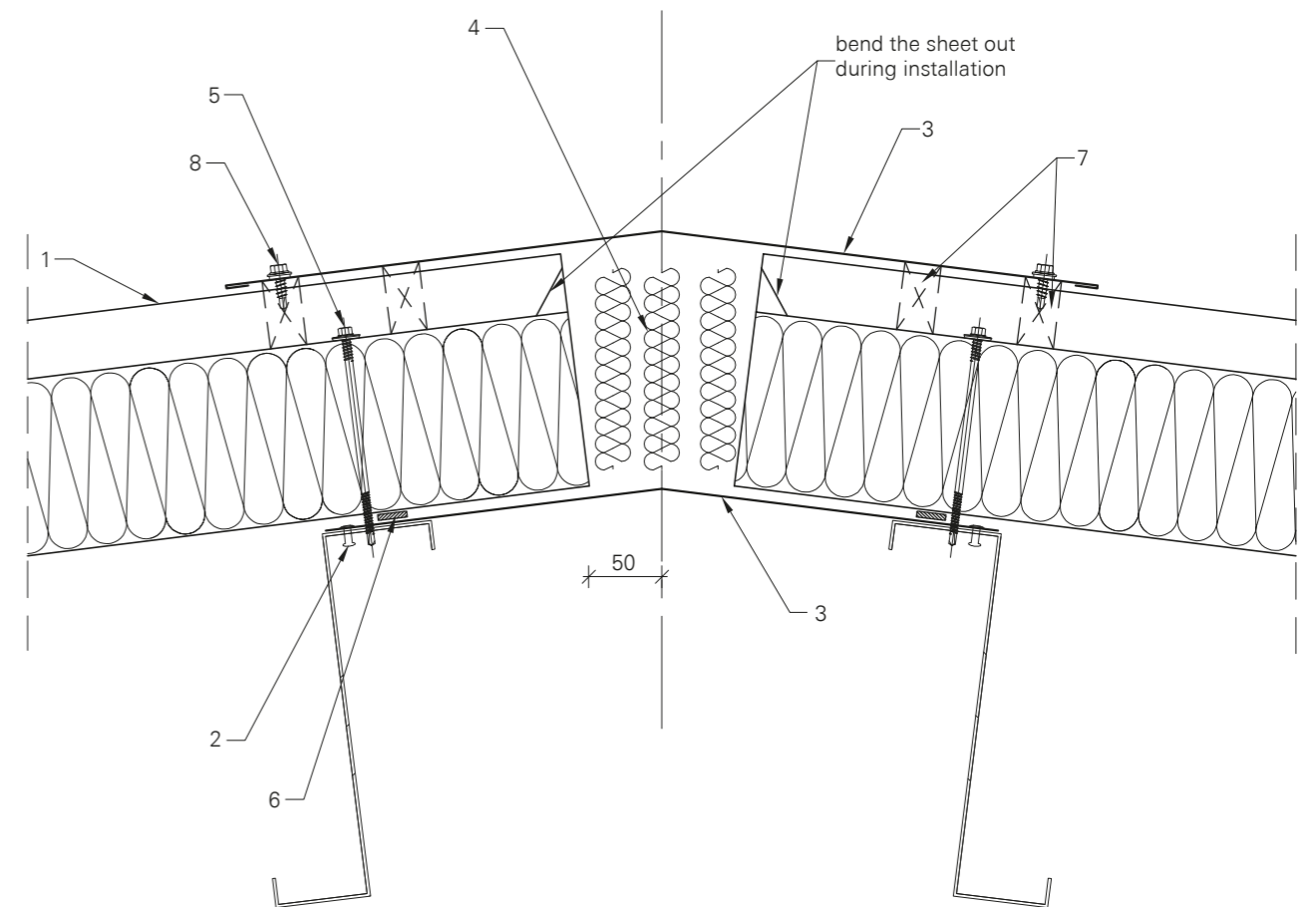
Applies to roof panels HPT TD3
DET. R.01.04



- [1] sandwich panels
- [5] panel fastener
- [6] sealing tape
- [9] 4.8x16 installation fastener with a Ø14 gasket every 400 mm

RIDGE DETAIL

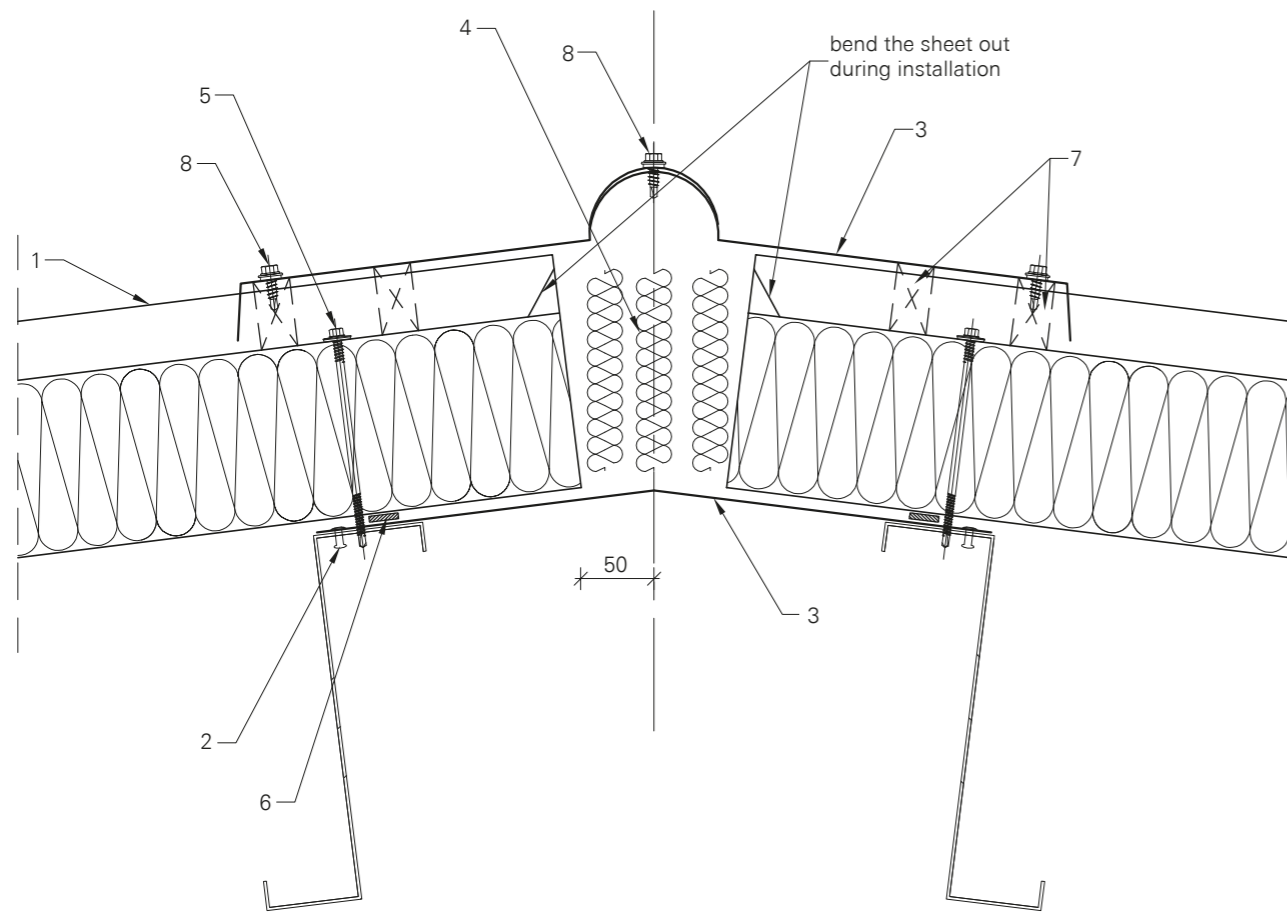
Applies to roof panels HPT TD5, HPT MTD, HPT TD3
DET. R.02.01



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling - mineral wool
- [5] panel fastener
- [6] sealing tape
- [7] profiled gasket
- [8] 4.8x19 screw

Technical data

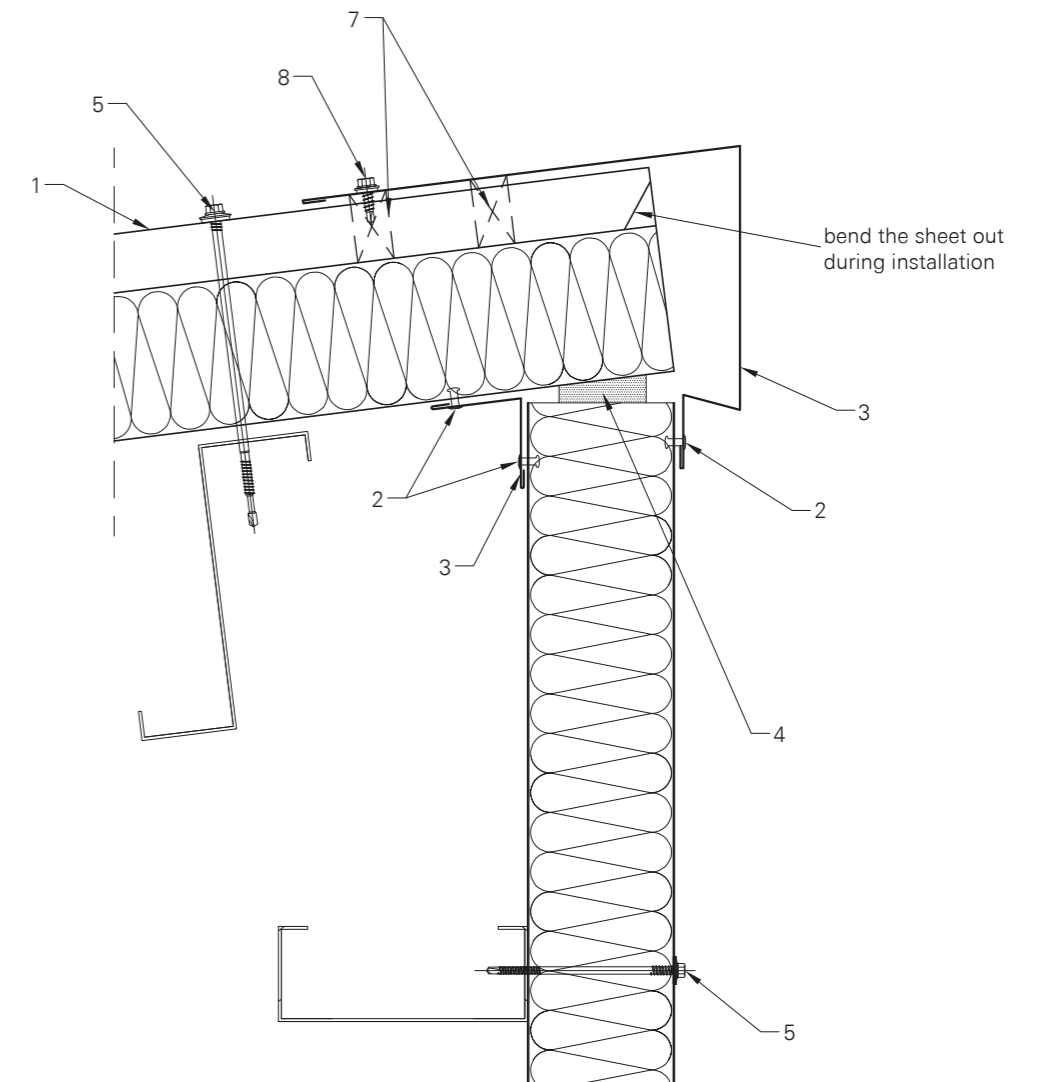
Applies to roof panels HPT TD5, HTP MTD, HTP TD3
DET. R.02.06



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling - mineral wool
- [5] panel fastener
- [6] sealing tape
- [7] profiled gasket
- [8] 4.8x19 screw

SINGLE-SLOPE RIDGE DETAIL

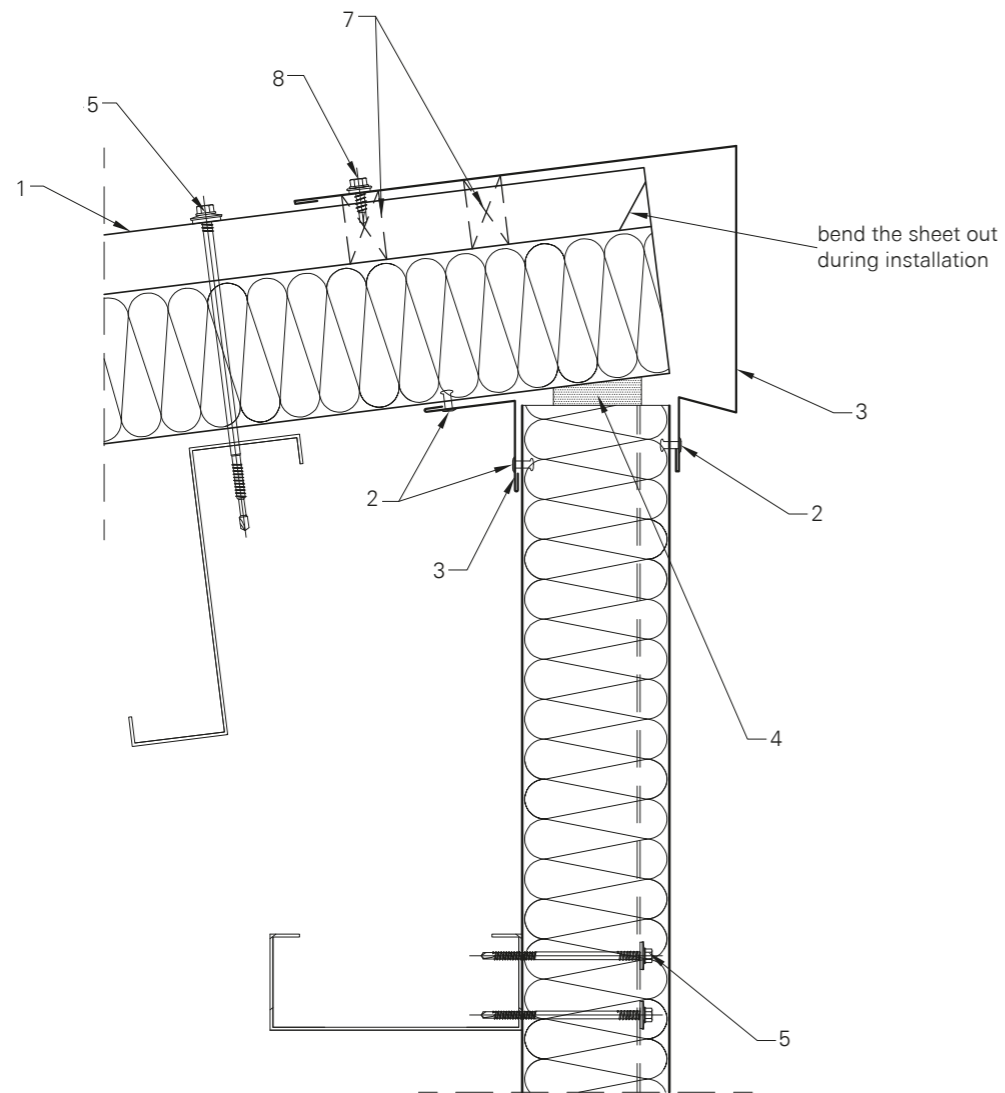
Panel arrangement: vertical
Applies to wall panels HPP PSD, HPP MDD
Applies to roof panels HPT TD5, HPT MTD, HPT TD3
DET. R.02.02



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [6] sealing tape
- [7] profiled gasket
- [8] 4.8x19 screw

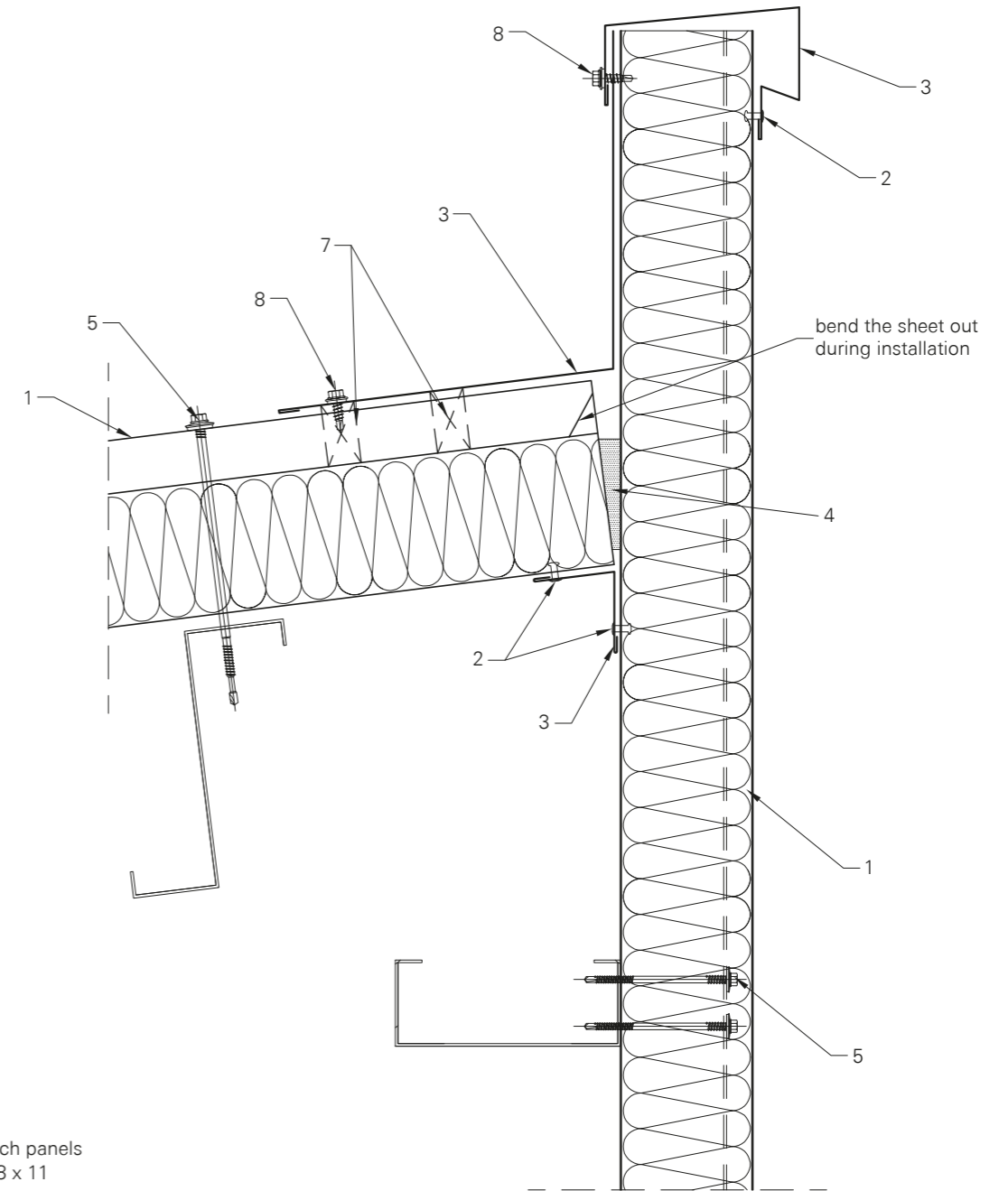
Technical data

Arrangement of wall panels: vertical
 Applies to wall panels HPP PSF
 Applies to roof panels HPT TD5, HPT MTD, HPT TD3
 DET. R.02.03



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam ...
- [5] panel fastener
- [6] sealing tape
- [7] profiled gasket
- [8] 4.8x19 screw

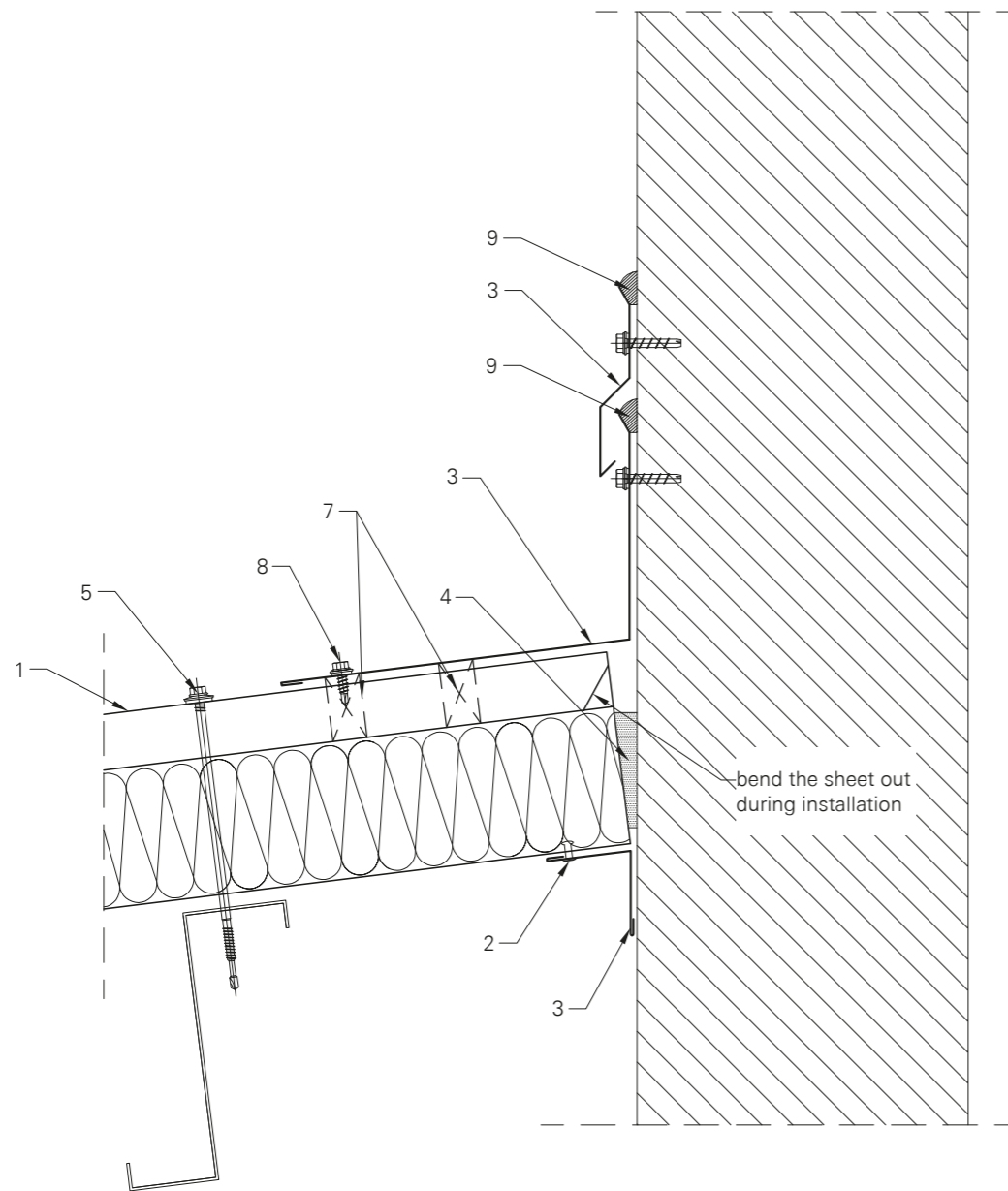
Arrangement of wall panels: vertical
 Applies to wall panels HPP PSF
 Applies to roof panels HPT TD5, HPT MTD, HPT TD3
 DET. R.02.04



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam ...
- [5] panel fastener
- [7] profiled gasket
- [8] 4.8x19 screw

DETAILS OF THE CONNECTION WITH A WALL

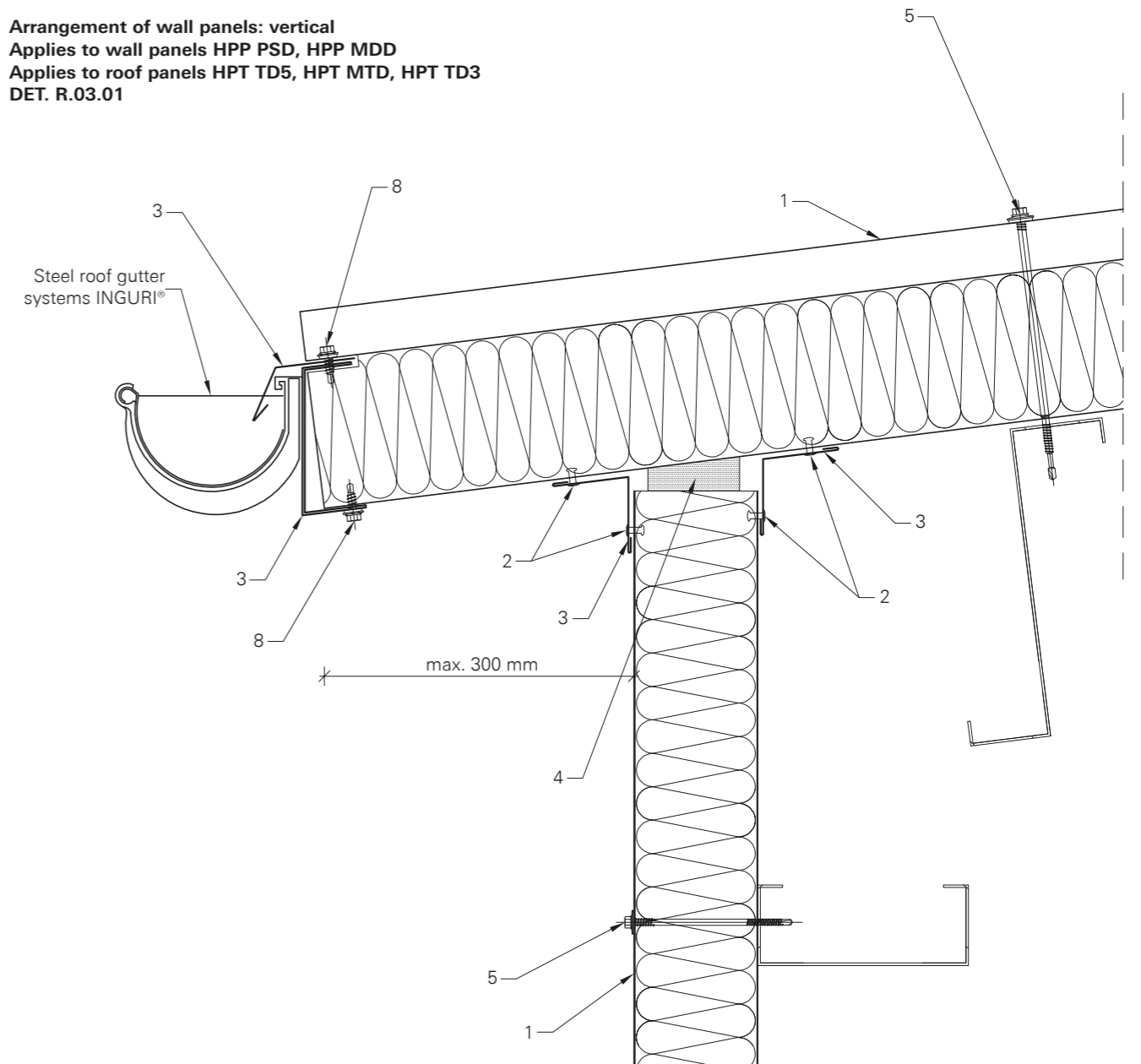
Applies to roof panels HPT TD5, HPT MTD, HPT TD3
DET. R.02.05



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam ...
- [5] panel fastener
- [7] profiled gasket
- [8] 4.8x19 screw
- [9] roof cement

EAVES DETAIL

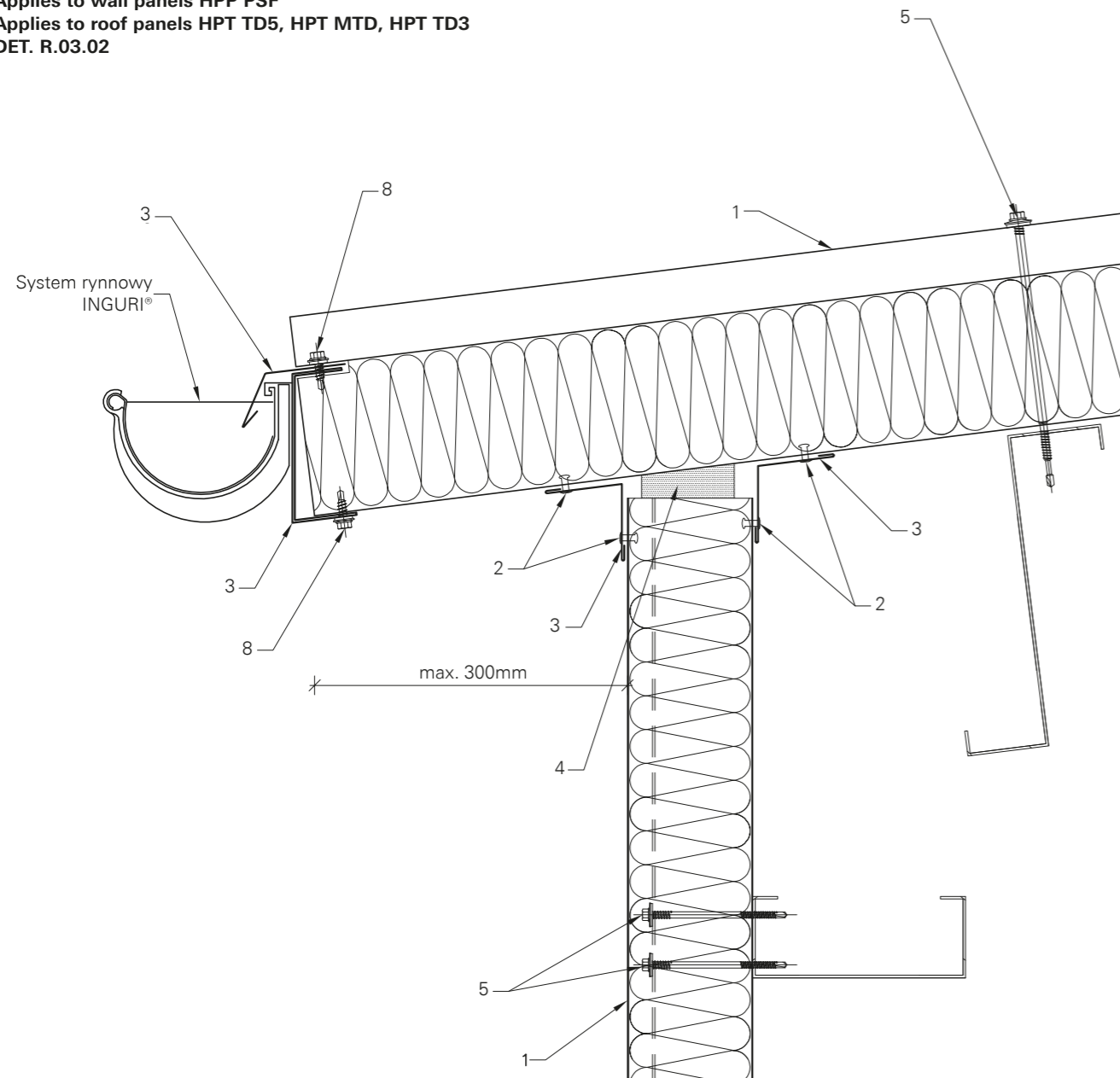
Arrangement of wall panels: vertical
Applies to wall panels HPP PSD, HPP MDD
Applies to roof panels HPT TD5, HPT MTD, HPT TD3
DET. R.03.01



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [8] 4.8x19 screw

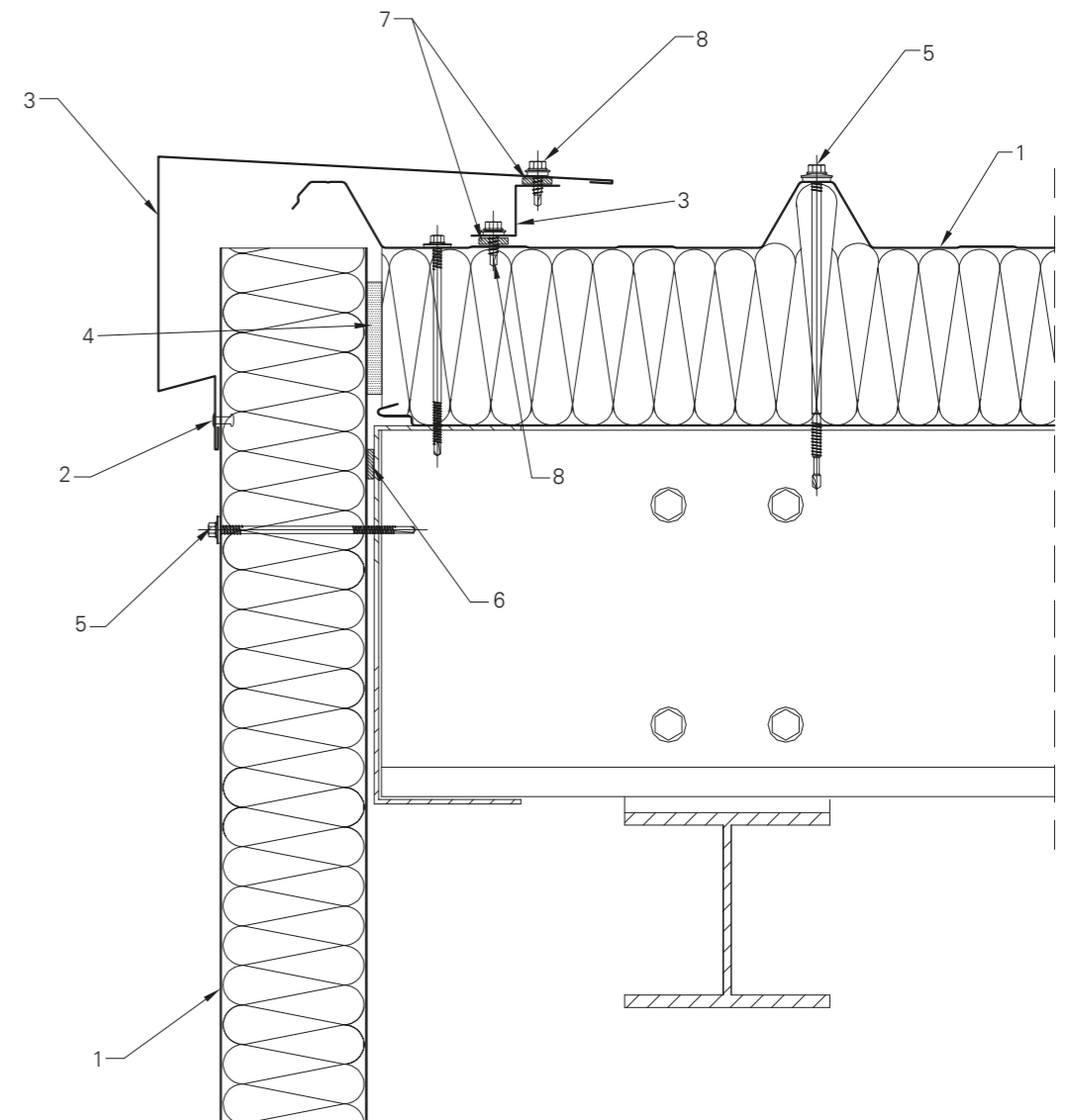
Technical data

Arrangement of wall panels: vertical
 Applies to wall panels HPP PSF
 Applies to roof panels HPT TD5, HPT MTD, HPT TD3
 DET. R.03.02



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam ...
- [5] panel fastener
- [8] 4.8x19 screw

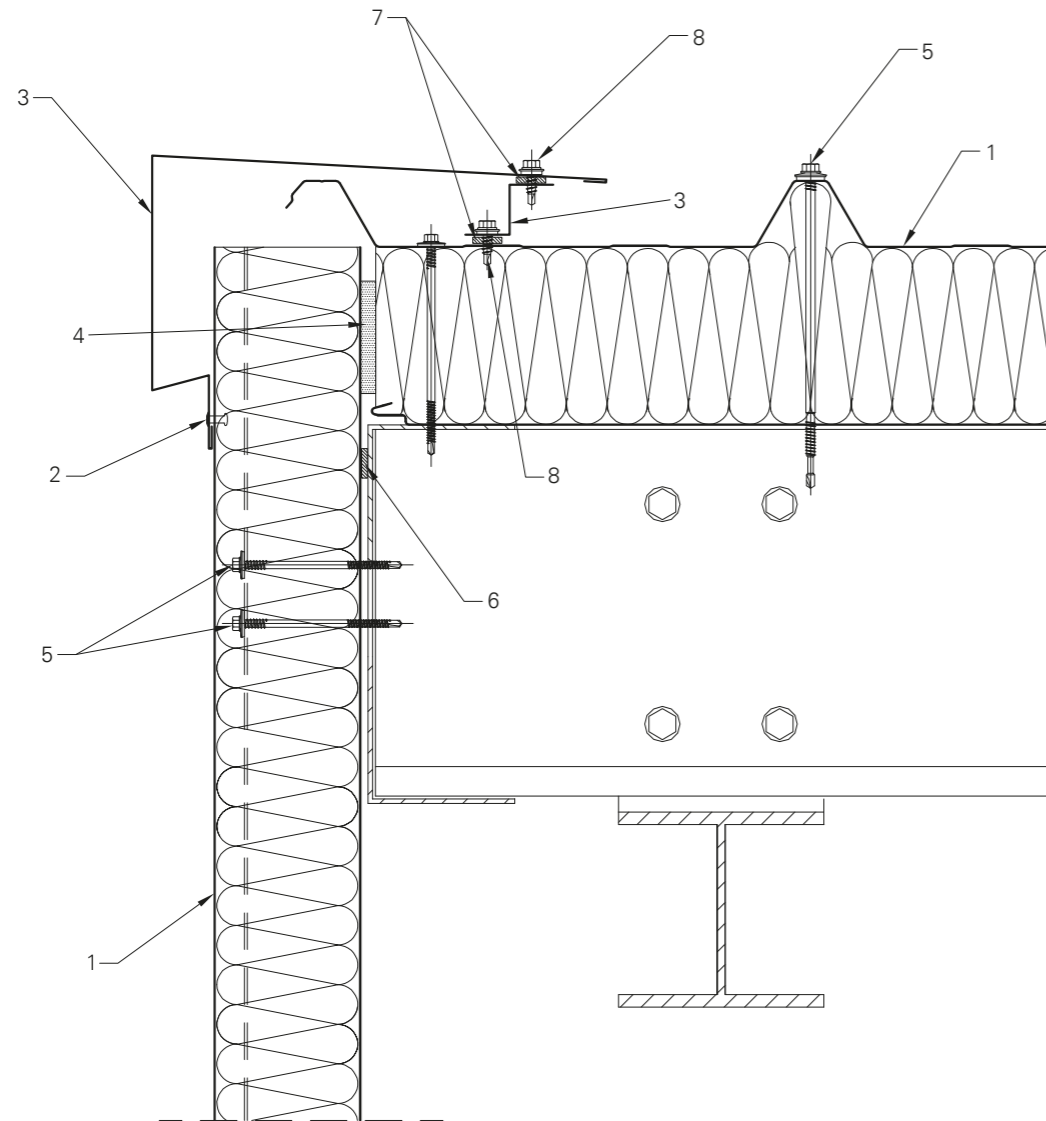
Arrangement of wall panels: vertical
 Applies to wall panels HPP PSD, HPP MDD
 Applies to roof panels HPT TD5, HPT MTD, HPT TD3
 DET. R.04.01



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam / mineral wool (acc. to panel type)
- [5] panel fastener
- [6] sealing tape
- [7] butyl tape
- [8] 4.8x19 screw

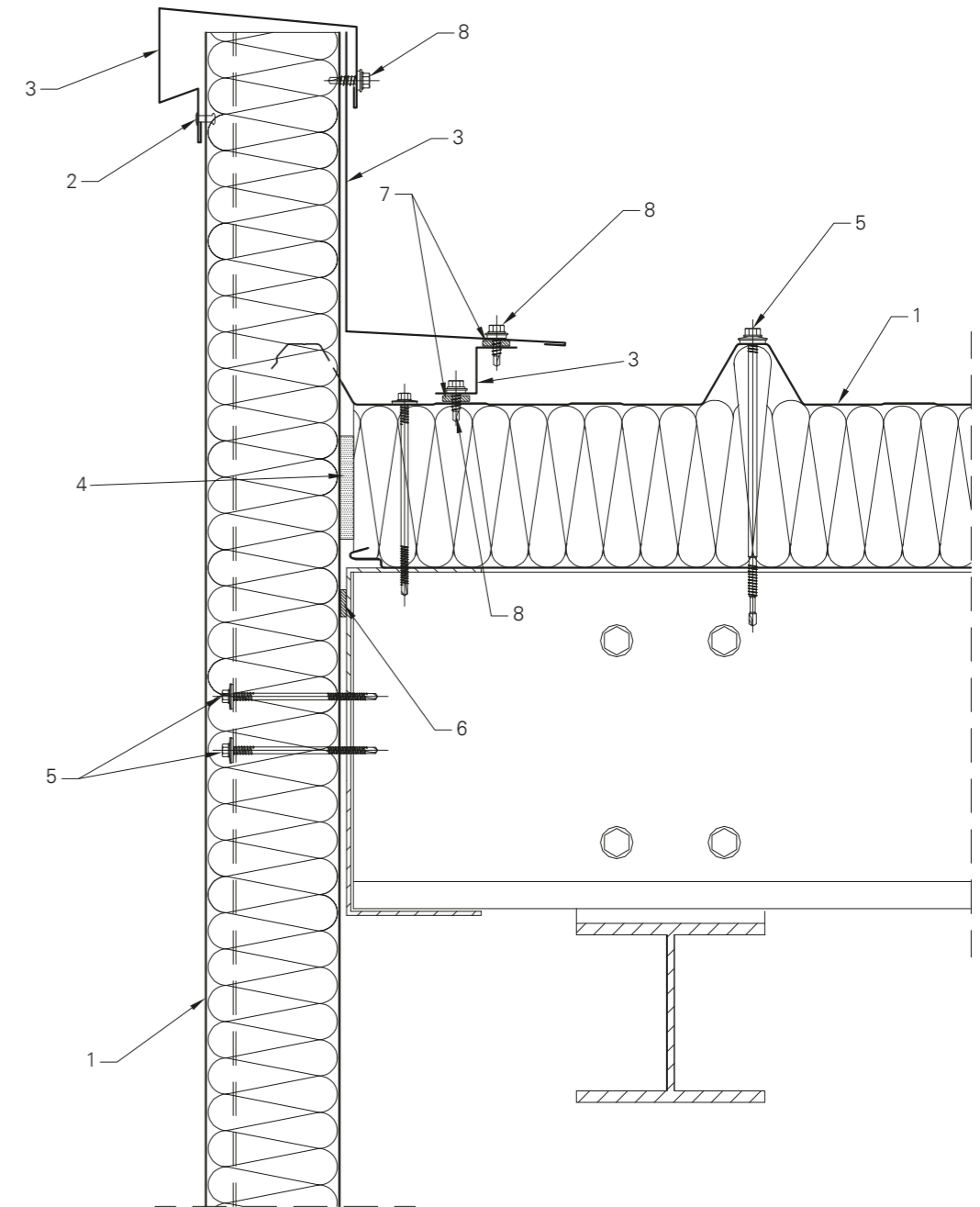
Technical data

Arrangement of wall panels: vertical
 Applies to wall panels HPP PSF
 Applies to roof panels HPT TD5, HPT MTD, HPT TD3
 DET. R.04.02



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam
- [5] panel fastener
- [6] sealing tape
- [7] butyl tape
- [8] 4.8x19 screw

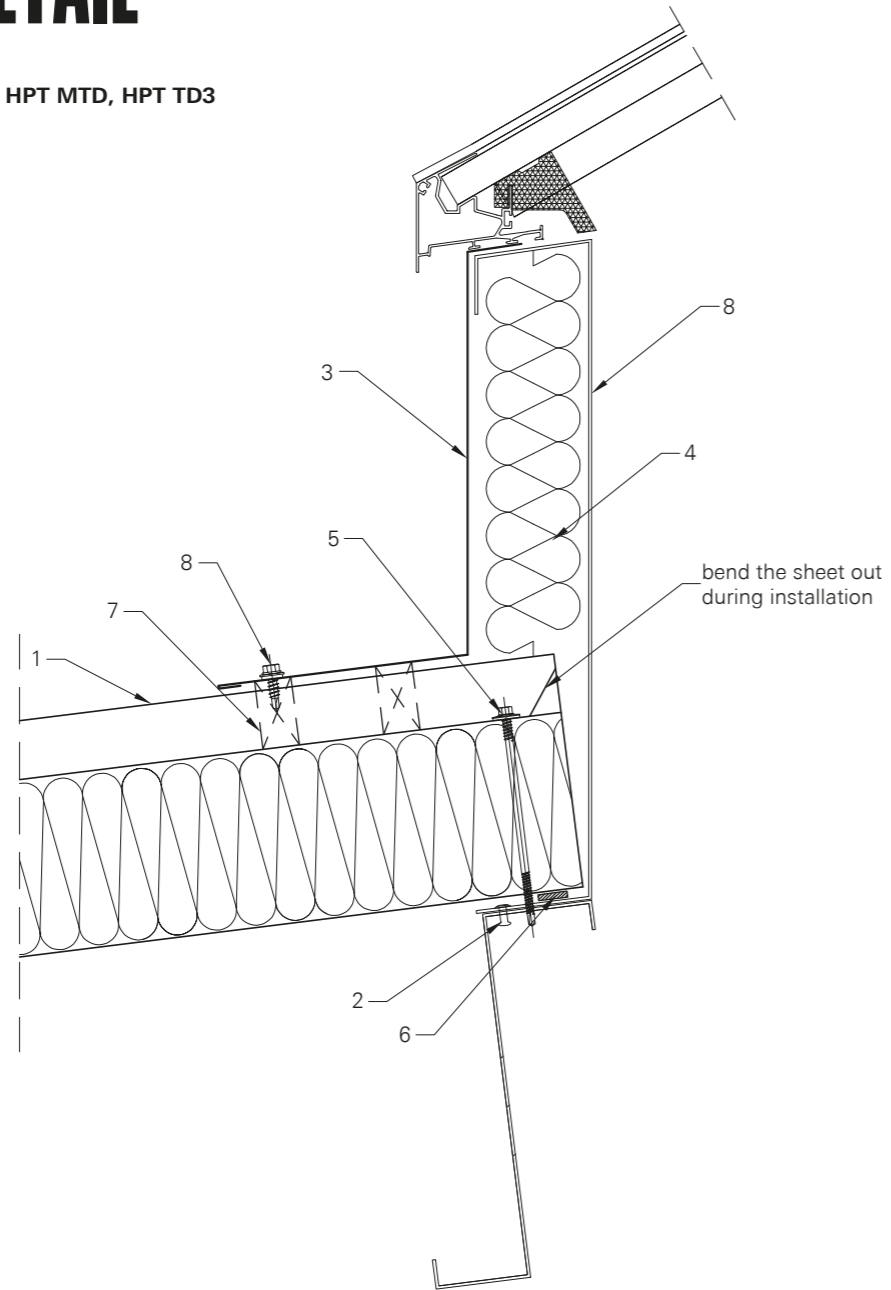
Arrangement of wall panels: vertical
 Applies to wall panels HPP PSF
 Applies to roof panels HPT TD5, HPT MTD, HPT TD3
 DET. R.04.03



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling of the joints - installation foam
- [5] panel fastener
- [6] sealing tape
- [7] butyl tape
- [8] 4.8x19 screw

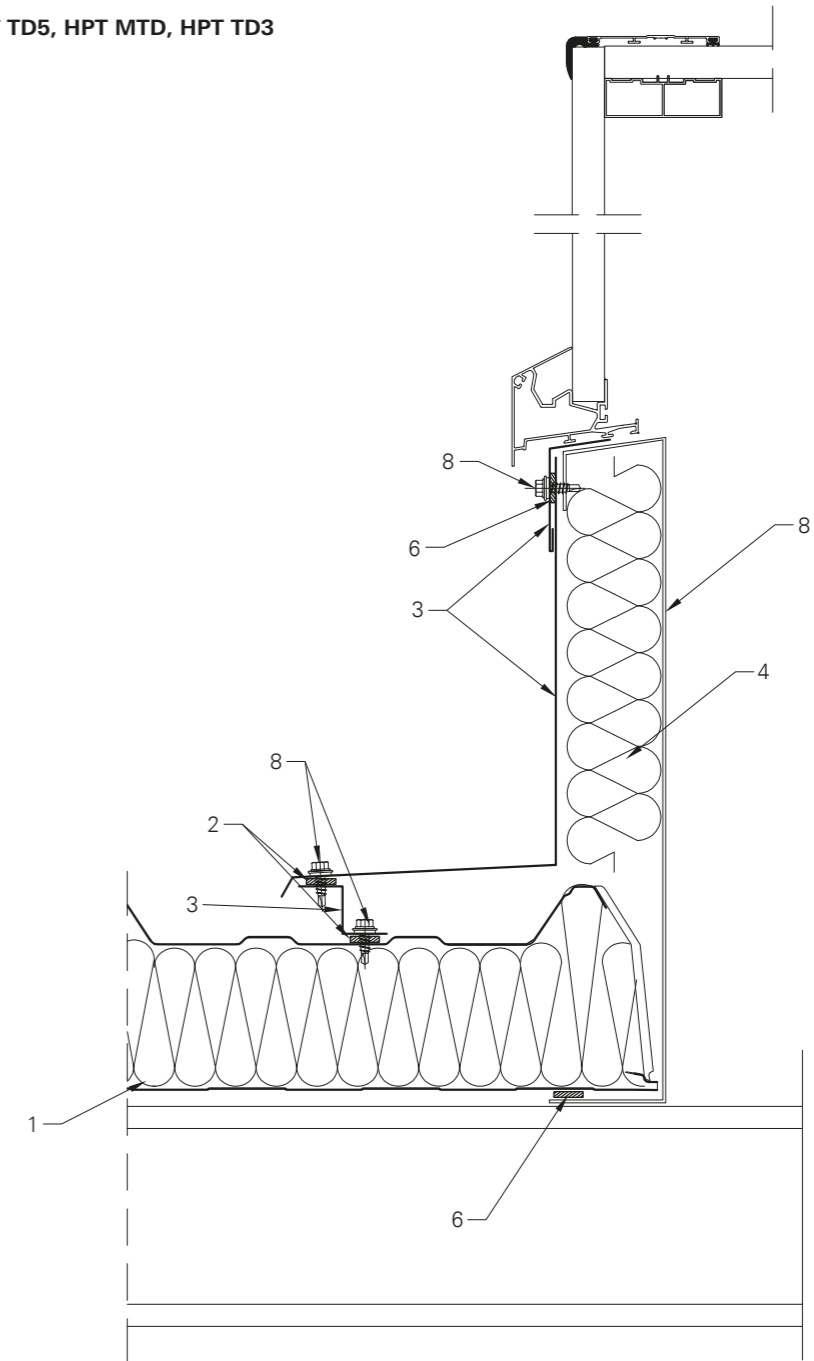
SKYLIGHT DETAIL

Applies to roof panels HPT TD5, HPT MTD, HPT TD3
DET. R.05.01



- [1] sandwich panels
- [2] rivet 4,8 x 11
- [3] flashing
- [4] filling - mineral wool
- [5] panel fastener
- [6] sealing tape
- [7] profiled gasket
- [8] skylight base

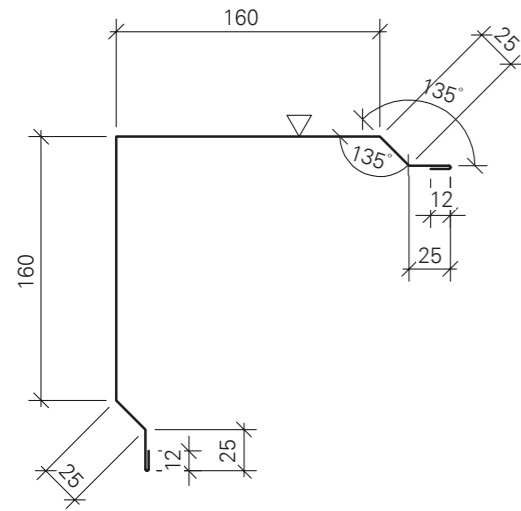
Applies to roof panels HPT TD5, HPT MTD, HPT TD3
DET. R.05.02



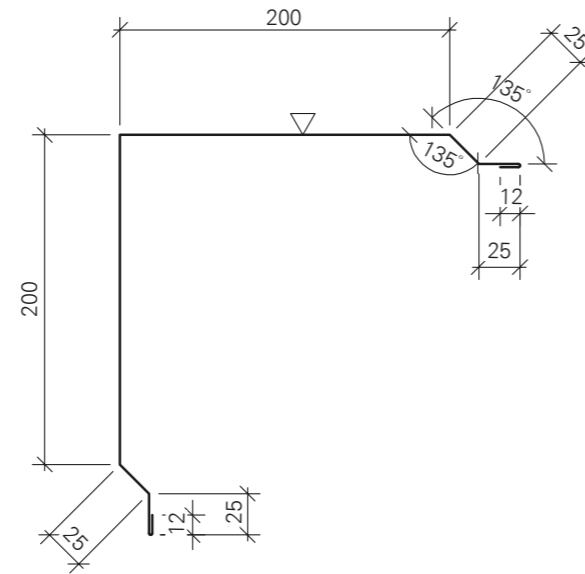
- [1] sandwich panels
- [2] butyl tape
- [3] flashing
- [4] filling - mineral wool
- [5] panel fastener
- [6] sealing tape
- [8] skylight base

CORNER FLASHING

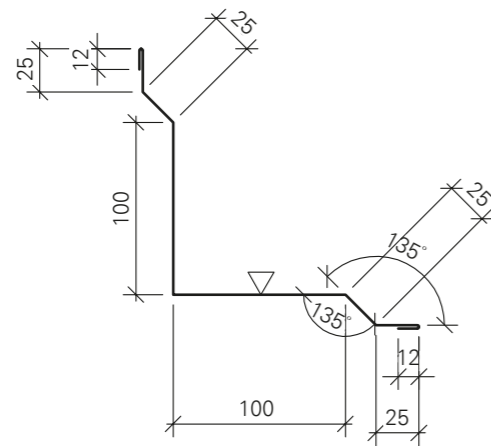
panel thickness: 40 - 80
DET. FW.01.01



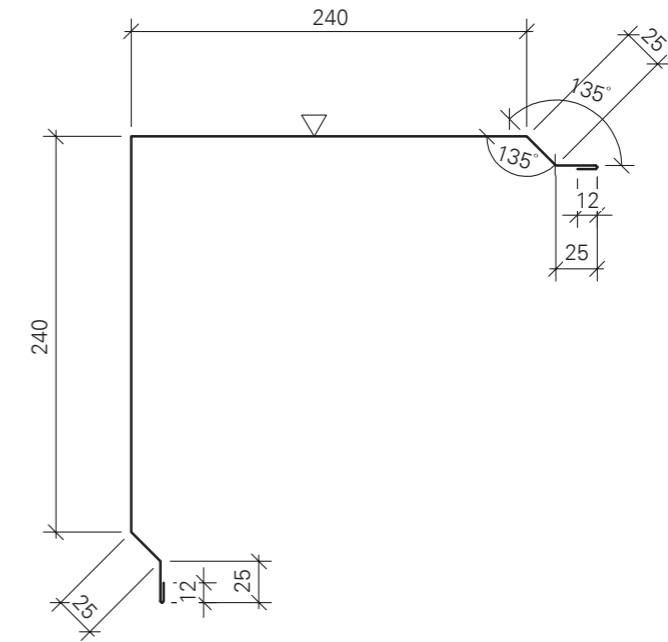
panel thickness: 100 - 120
DET. FW.01.02



panel thickness: 40 - 150
DET. FW.01.04

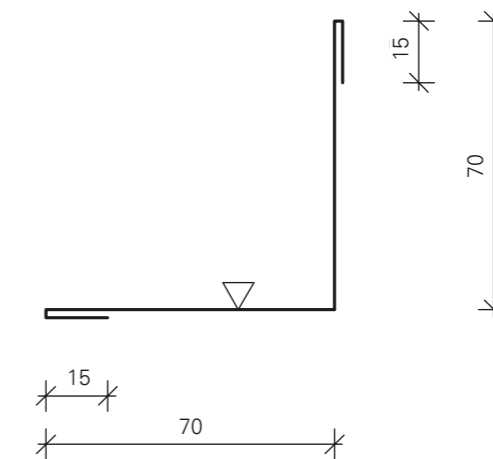


panel thickness: 150
DET. FW.01.03



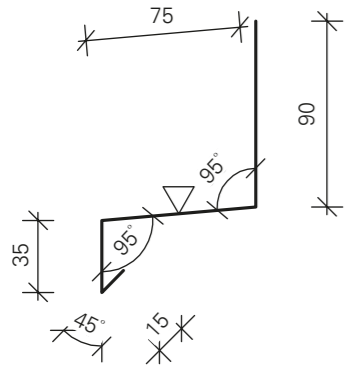
CORNER - INTERNAL FLASHING

panel thickness: 130 - 150
DET. FW.01.05

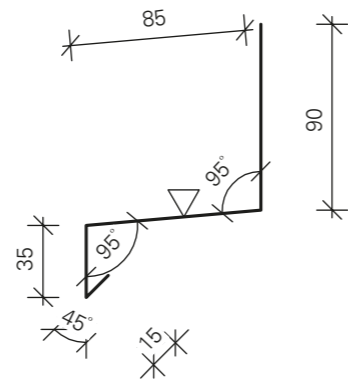


PLINTH/WINDOW DRIP CAP

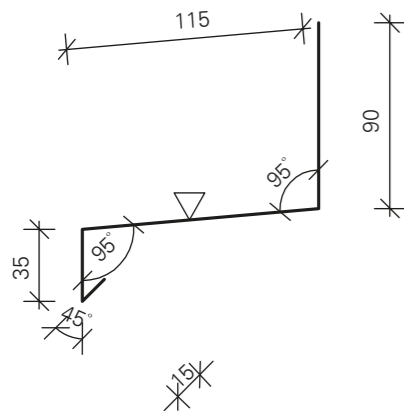
panel thickness: 40
DET. FW.02.01



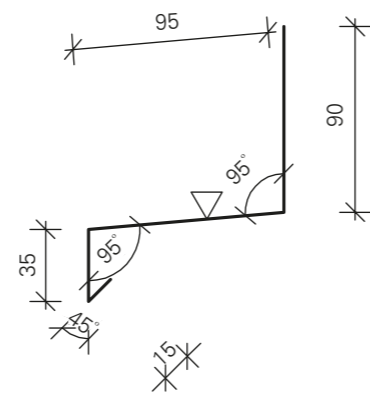
panel thickness: 50
DET. FW.02.02



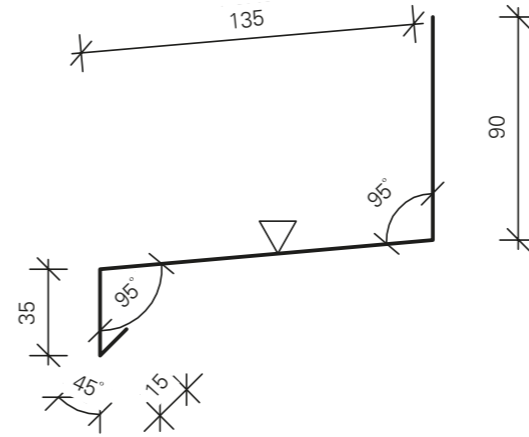
panel thickness: 80
DET. FW.02.04



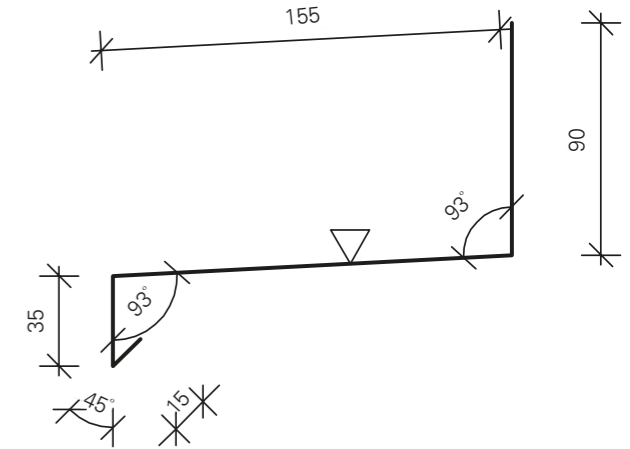
panel thickness: 60
DET. FW.02.03



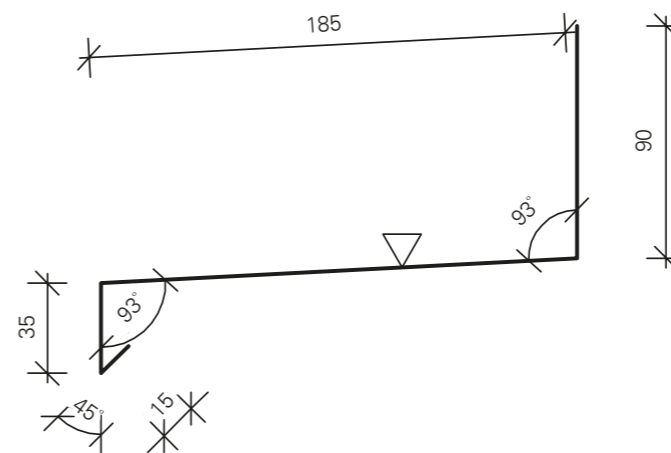
panel thickness: 100
DET. FW.02.05



panel thickness: 120
DET. FW.02.06



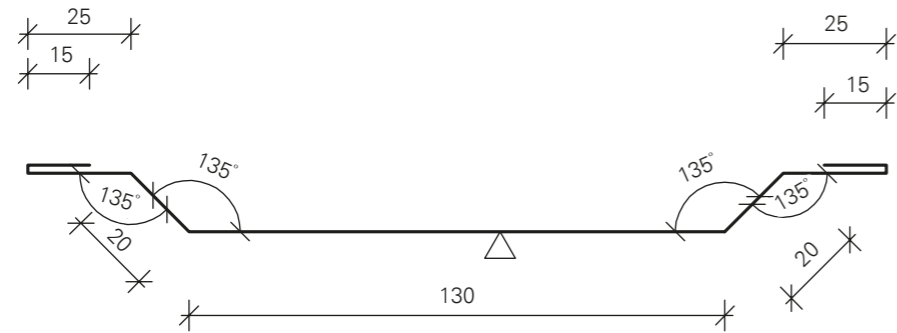
panel thickness: 150
DET. FW.02.07



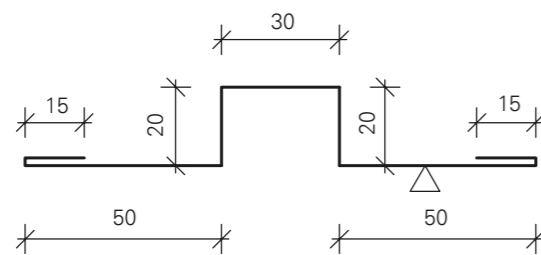
JOINT FLASHING

panel thickness: 40 - 150

DET. FW.03.01

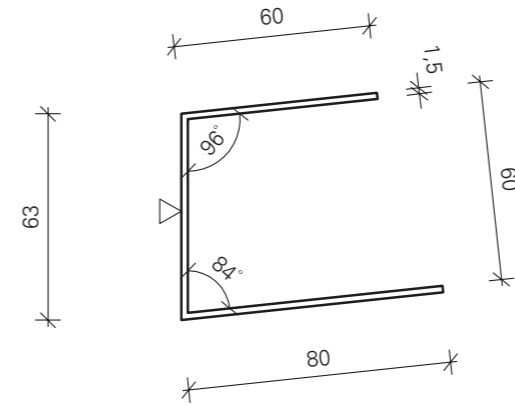


DET. FW.03.02

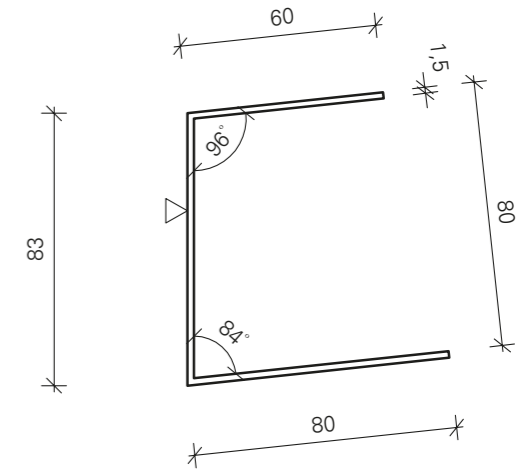


EAVES FLASHING C - 10% SLOPE

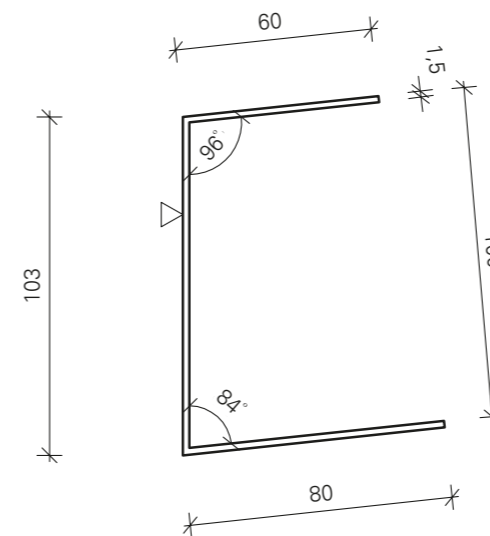
panel thickness: 60/100
DET. FR.02.01



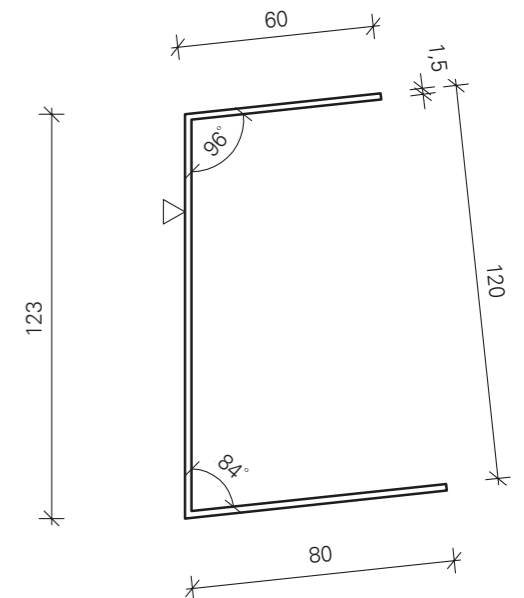
panel thickness: 80/120
DET. FR.02.02



panel thickness: 100/140
DET. FR.02.03

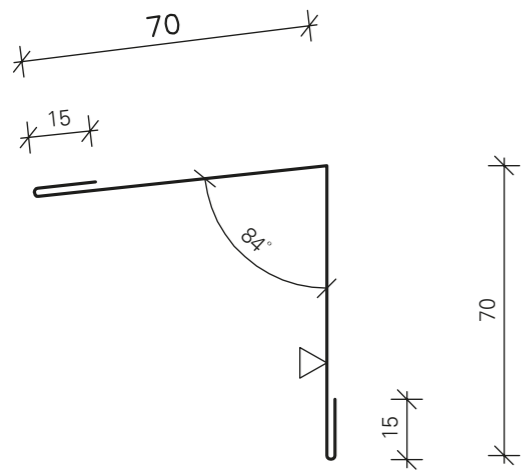


panel thickness: 120/160
DET. FR.02.04

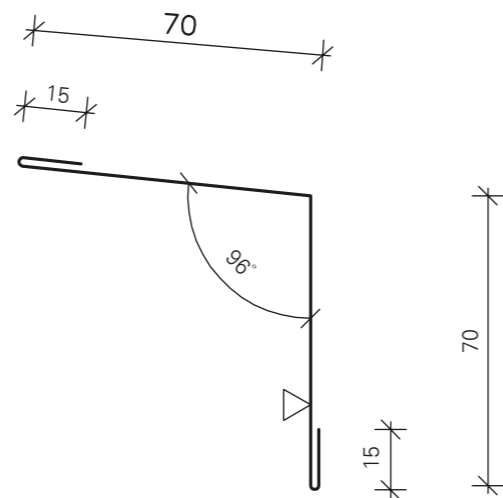


EAVES FLASHING - SLOPE 10%

DET. FR.03.01

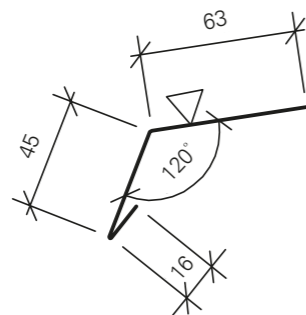


DET. FR.03.02



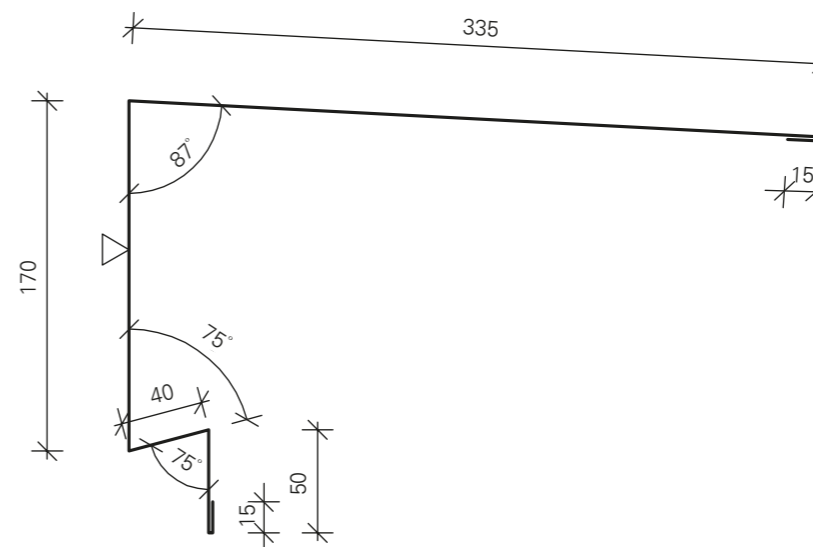
OVER-GUTTER STRIP

DET. FR.03.03



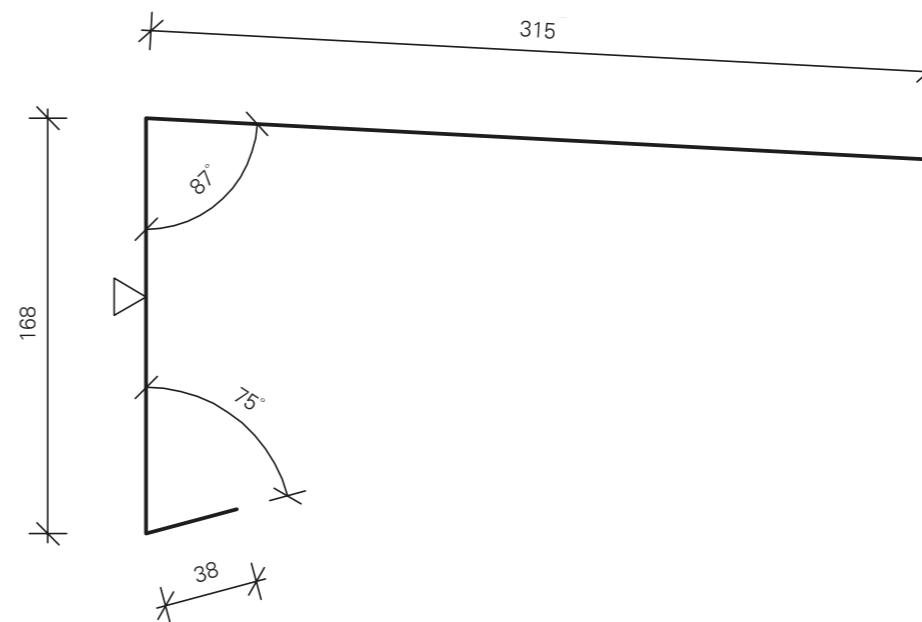
TOP BLIND WINDOW

DET. FR.04.01



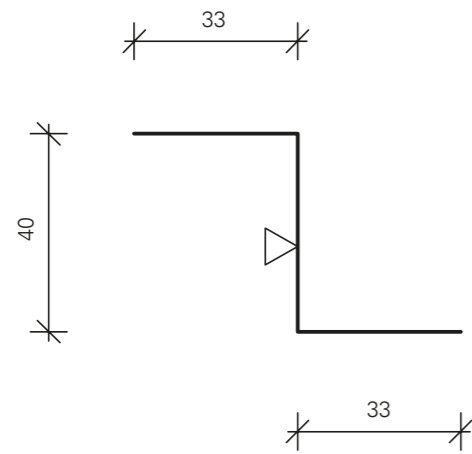
TOP BLIND WINDOW CONNECTOR

DET. FR.04.02

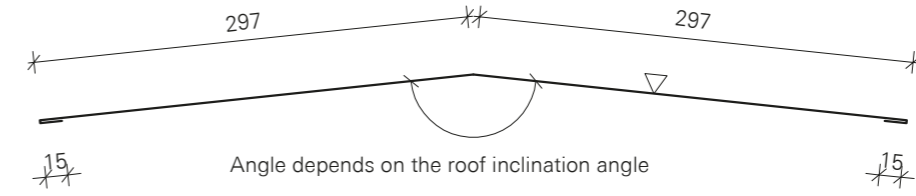


Z PROFILE

DET. FR.04.03

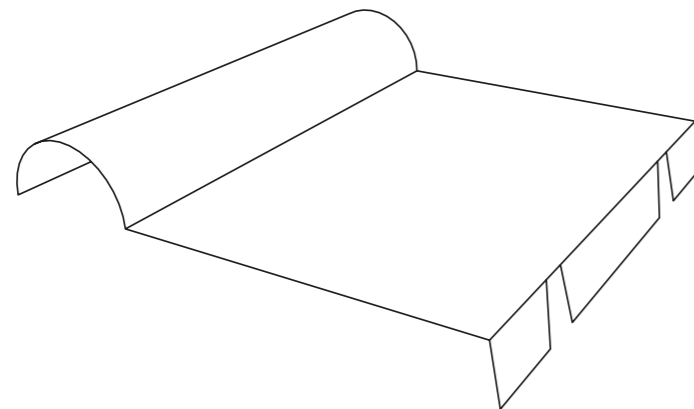
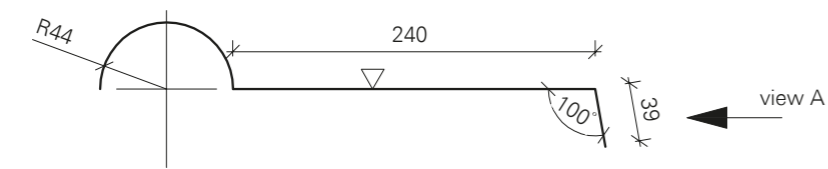


DET. FR.01.02



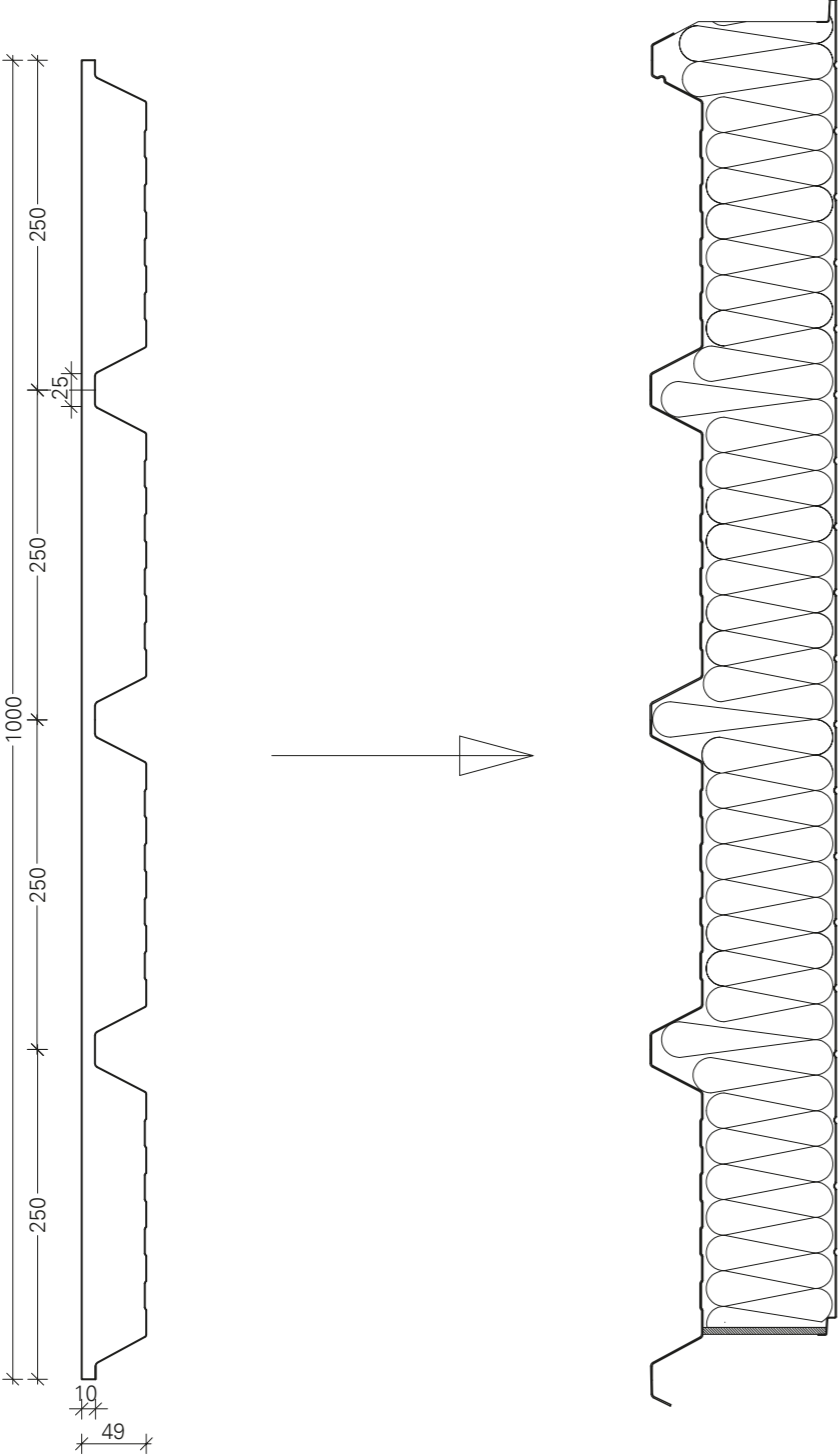
RIDGE FLASHING

DET. FR.01.01

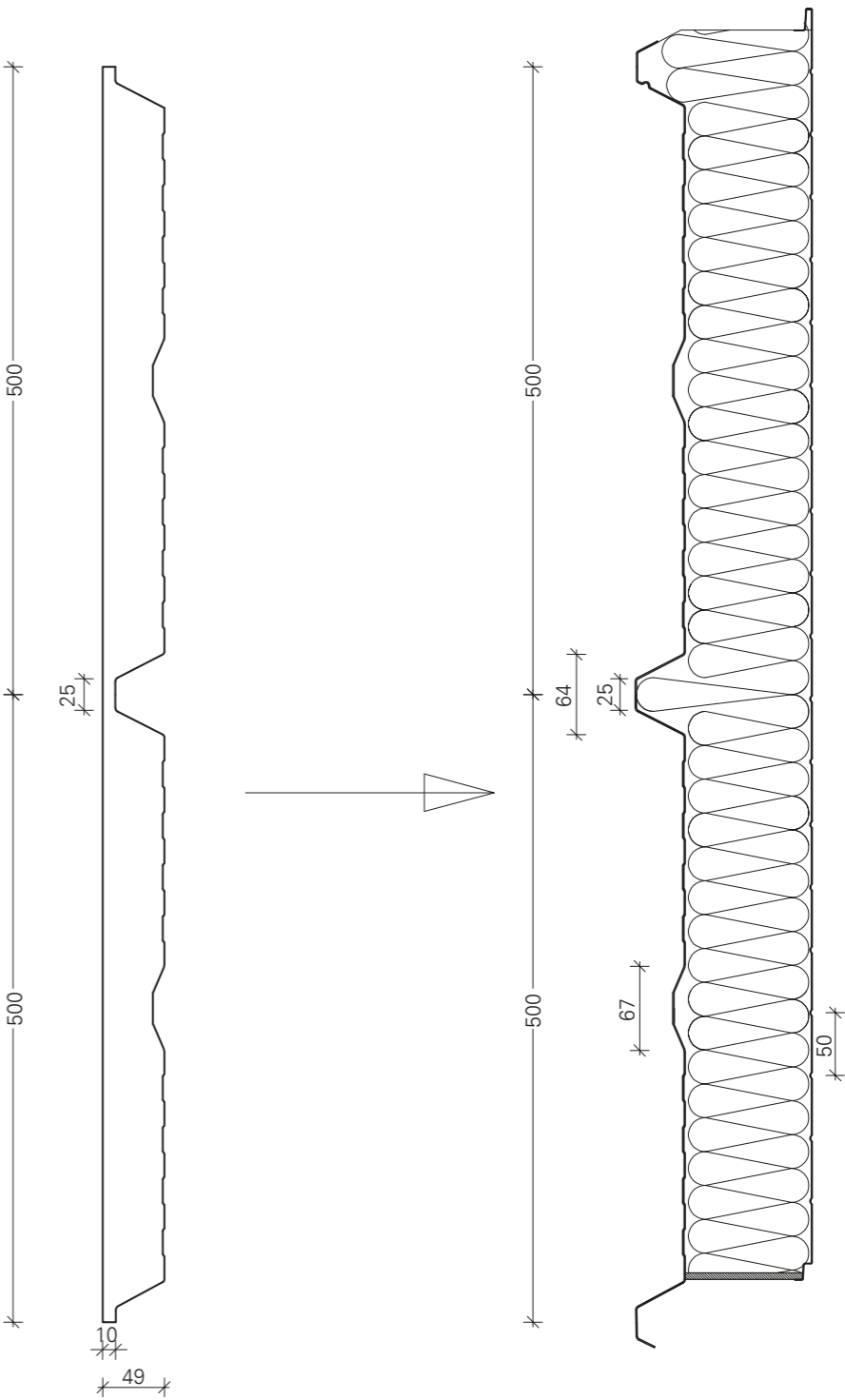


PROFILED GASKETS

Applies to roof panels HPT TD5, HPT MTD
DET. UPG.TD5



Applies to roof panels HPT TD3
DET. UPG.TD3



8

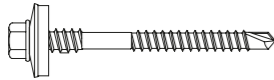
ACCESSORIES



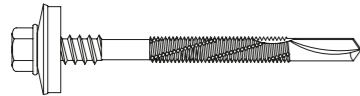
MOUNTING ELEMENTS

Sandwich panels are fixed to the load-carrying structures using dedicated system fasteners. Depending on the base, we recommend four types of bracket screws that differ in terms of the thread design.

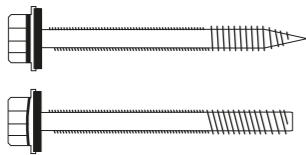
Self-drilling screws within the thickness range 1.5-4 mm - designed for thin-walled steel structures.



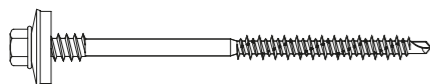
Self-drilling screws within the thickness range 4-16 mm - designed for thin-walled steel structures..



Self-drilling screws within the thickness range above 16 mm - designed for thin-walled steel structures.



Self-drilling screws for wooden and concrete structures.



The length of the connector should be selected depending on the type and thickness of the applied sandwich panel. All connectors should be equipped with Ø19 sealing and vulcanizing gaskets. If the object is subject to high humidity and impact of chemicals, we recommend using stainless steel fastener.

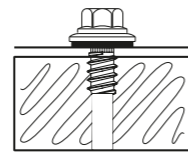
To improve the aesthetics of the installation, especially when joining sandwich panels using a visible fastener, use powder painted fasteners with heads and washers or fitted with caps of a plastic compound in colour matching the colour of the sheet of the facade panel.

In order to correctly fix the sandwich panel to the construction, during installation, maintain the perpendicular position of the fastener in relation to the application surface. Therefore, during installation, it is recommended to use specialist screw guns equipped with a guide that enable stable installation of long fasteners and reduce the depth of installation. These elements optimize the drilling capability and allow for simultaneous drilling and fixing using just one power tool, thus reducing the installation time and improving the installation quality. Uniform, constant and high pulling force is therefore achieved which

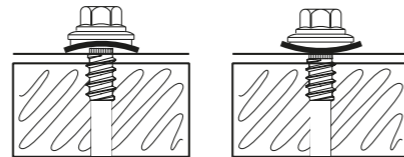
reduces the risk of deformation of the facings (they use the adjustment system related to the setting of the installation depth) and increases the resistance of the fasteners to external factors (e.g. water-proofness). All this provides safety of the structure and eliminates the so-called installation play, i.e. missing loosen screws and shifts that may be present between the sandwich panels and the support the panel is fixed to.

The pressure force should be selected not to deform the washer. This is shown in the figure below.

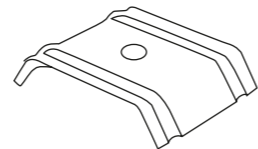
Correct



Incorrect



When installing roof sandwich panels with trapeze profile, we recommend using calottes, i.e. clamp-shaped cap elements fitted with internal sealing and matched to the size of the front and side surface of the sandwich panel's trapeze.

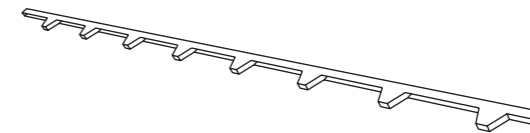


Calottes are designed to uniformly distribute pressure force of the fasteners on large surfaces and provide water-proofness of the joints. In most cases, they are more effective and efficient solution comparing to normal washers with a sealing compound, such as EPDM.

The contractor and his/her inspection department is responsible for the installation quality. Most often, the reason for the lack of tightness of the coatings is imperfect installation procedure. In order to achieve optimum effect, we recommend contacting BLACHPROFIL 2 technical support. It is also recommended for the panels to be installed by specialized teams who know the specific nature of the installation of light casings..

SEALING

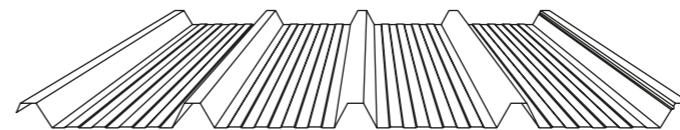
High-quality sealing provides full functionality of the roofing made of sandwich panels. Our offer includes robust profiled polyurethane sealing resistant to severe weather conditions.



ROOF SKYLIGHTS

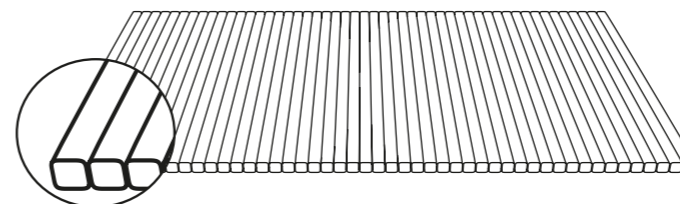
Roof skylights are trapezoidal panel profiles made of polycarbonate that lets the sunlight in. They are used to provide additional source of light into buildings. Their major advantage is low cost comparing to glass skylights and option to install them in cold halls.

Trapezoidal skylight profile



dimensions
H = 40 mm, dimensions: 10,000 x 1000 mm
H = 40 mm, dimensions: 12 000 x 1000 mm
H = 40 mm, dimensions: 13 500 x 1000 mm

Skylight profile, cellular polycarbonate



dimensions
H = 10 mm, module: 600 x 960

9

TRANSPORT AND STORAGE



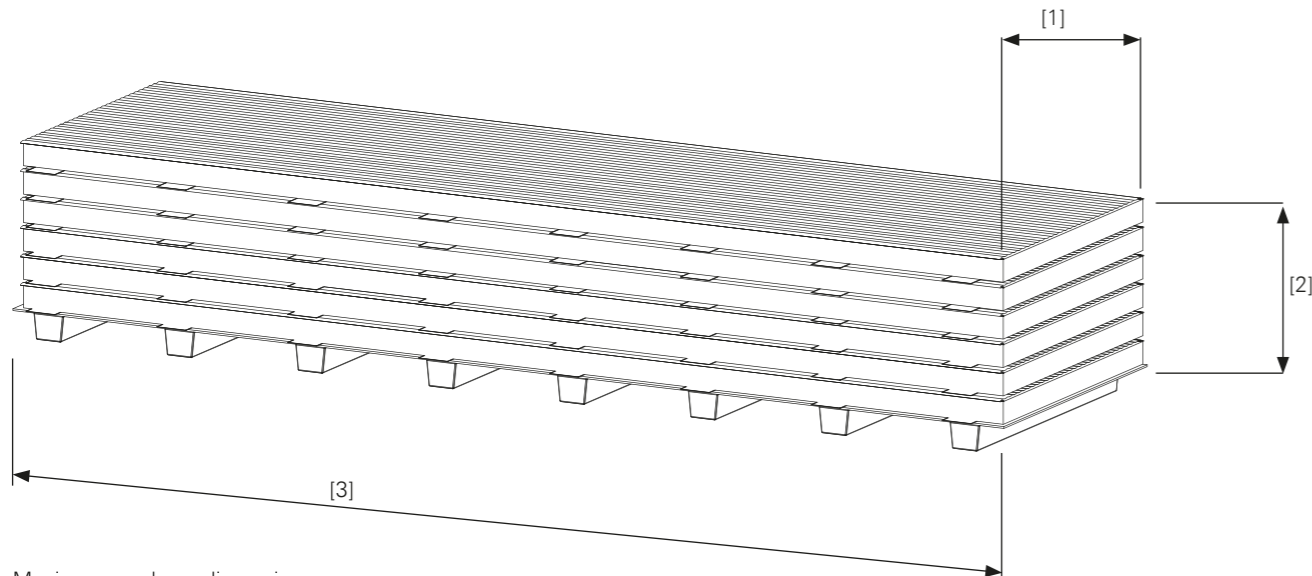
TRANSPORT RECOMMENDATIONS

The table presents recommendations concerning packing and transport of BLACHPROFIL 2[®] sandwich panels.

Wall panels [mm]				Roof panels [mm]			
Panel thickness	Number of items in a package	Number of packages in a vehicle	Height of packages	Panel thickness	Number of items in a package	Number of packages in a vehicle	Height of packages
25	23	8	2530	30	16	6	2610
40	19	6	2520	40	12	6	2370
50	15	6	2490	50	8	8	2520
60	13	6	2580	60	10	6	2610
80	10	6	2610	80	8	6	2610
100	8	6	2610	100	6	6	2370
120	6	6	2370	120	4	8	2520
150	5	6	2460				

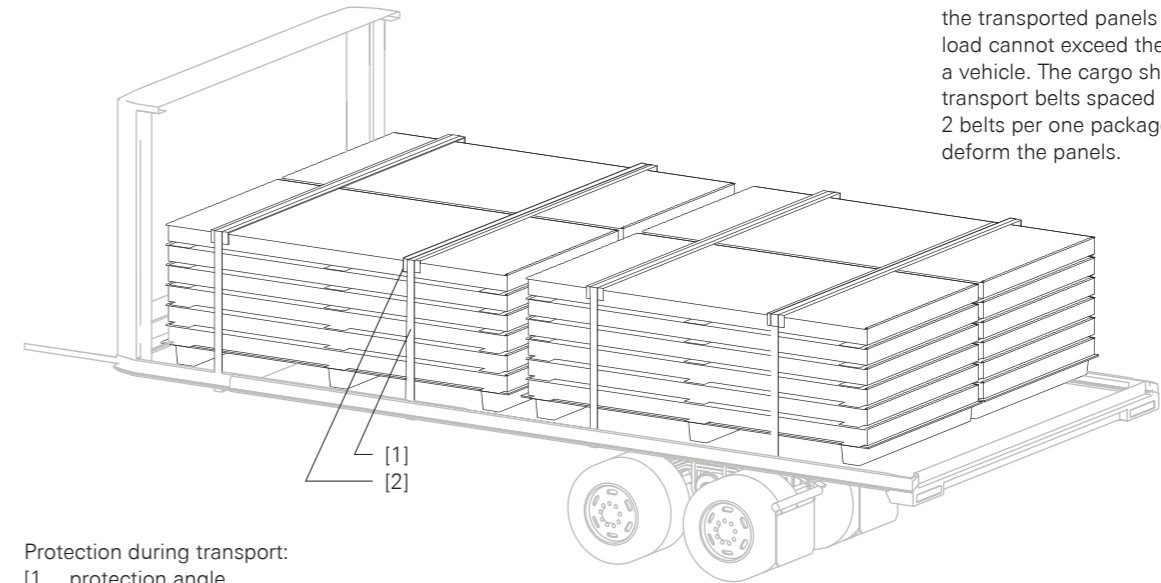
Container - maximum height of packages 2 700 mm

The drawing below shows the maximum dimensions of a single package.



Maximum package dimension:

- [1] max. 1.19 m
- [2] max. 1.25 m
- [3] max. 13.5 m

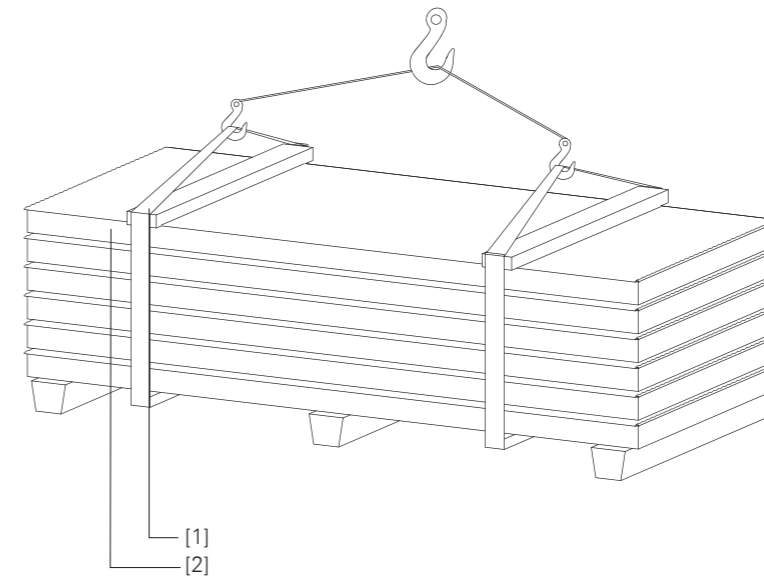


Protection during transport:

- [1] protection angle
- [2] transport belt

An open trailer truck or truck with side loading on both sides along the whole its length is a recommended means of transportation. The trailer should not be shorter than the length of the transported panels and the weight of the load cannot exceed the transport capacity of a vehicle. The cargo should be fixed with transport belts spaced max. 3m, but no less than 2 belts per one package. Belts stretch cannot deform the panels.

UNLOADING



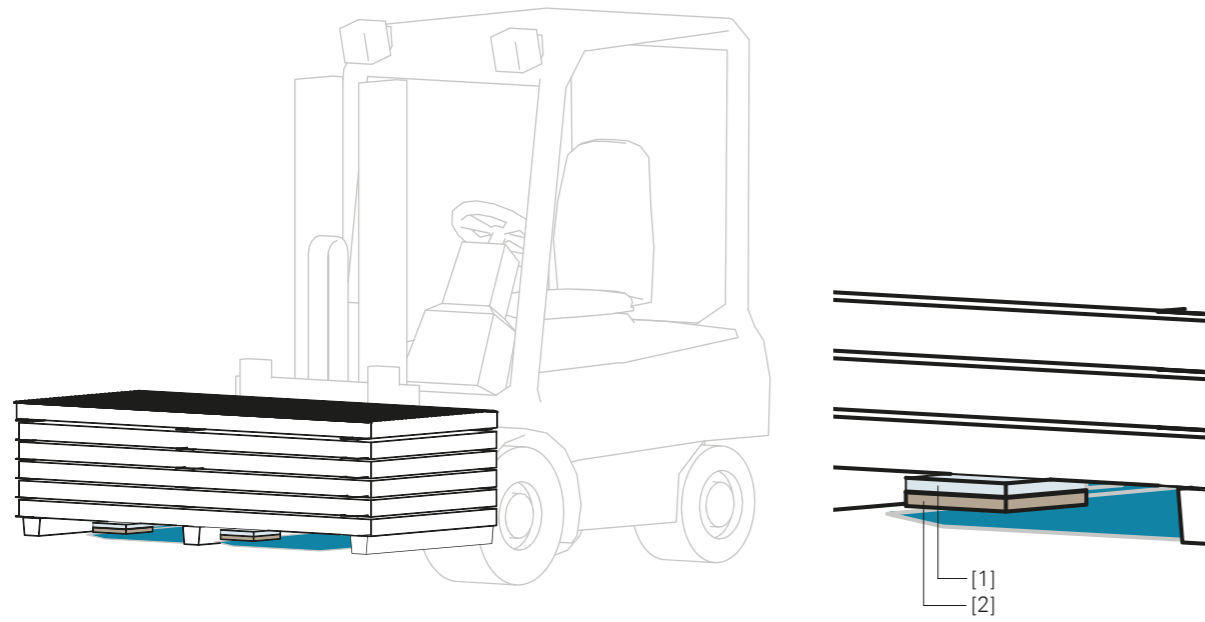
Unloading

- [1] spacing beam
- [2] distance from the belts min. 5 cm

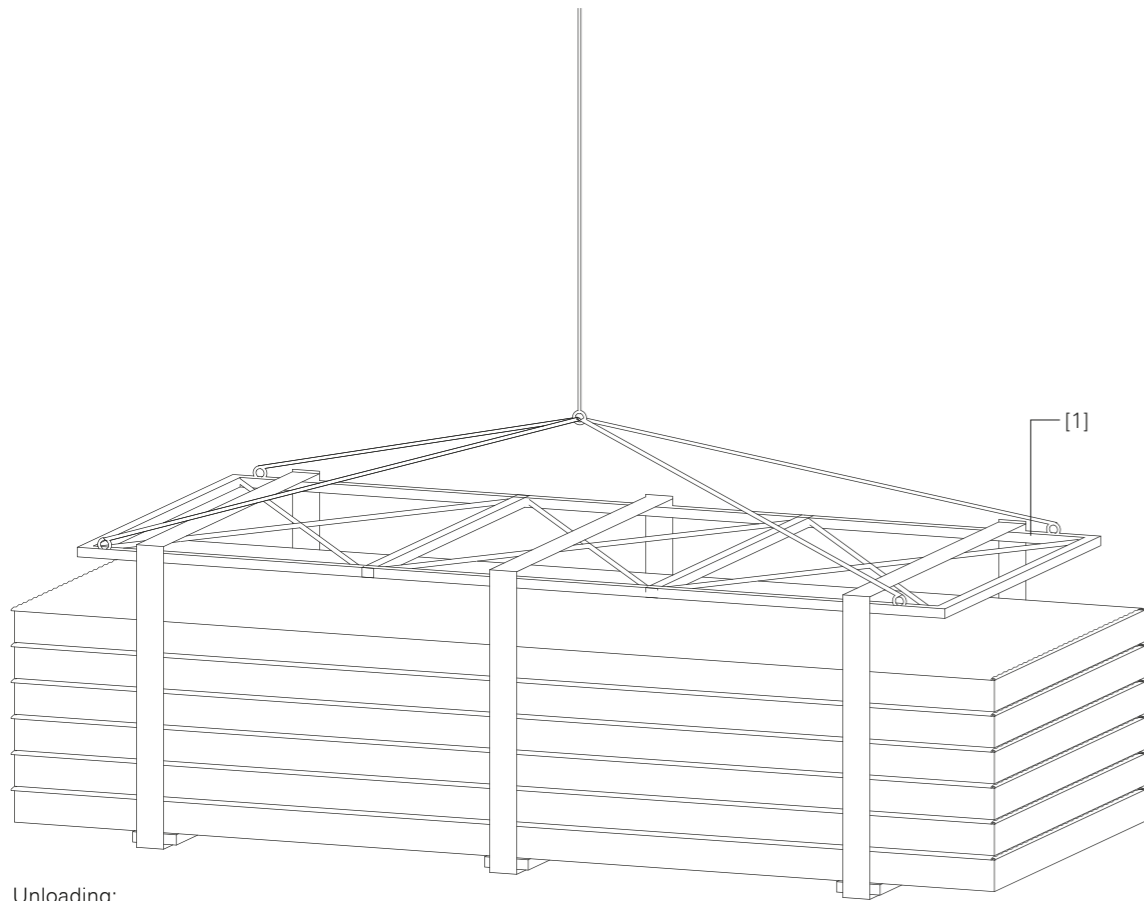
To unload the package of maximum length 6 m, it is admissible to use forklift trucks with adjusted width of forks. However, these should have minimum 2 m spacing and 150 mm minimum width. Packages longer than 6 m should be lifted using transport belts and spreader beams. In case of packages length being 6-12 m, the belts should be at least 200 mm wide and spaced every 2-4 m and above 1 2m: 200 mm and 3.5-4.5 m. We recommend putting the belts on wooden washers placed at the bottom and top of the package. The belts should have minimum width 300 mm and minimum thickness 2 5mm.

Do not lift the packages using clamping or crossing belts and do not use steel cords or chains that may damage the cargo.

Transport and storage

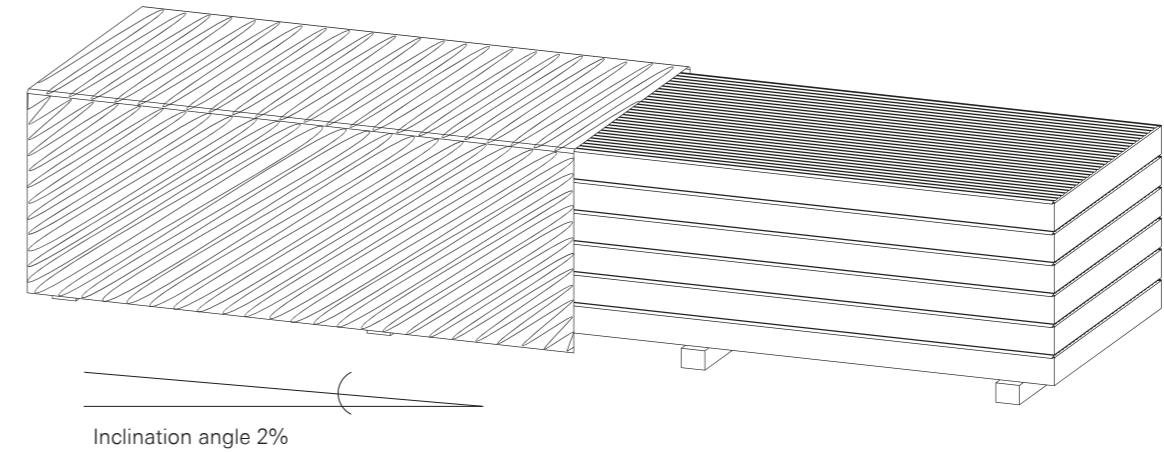


Unloading:
 [1] styrofoam
 [2] OSB board

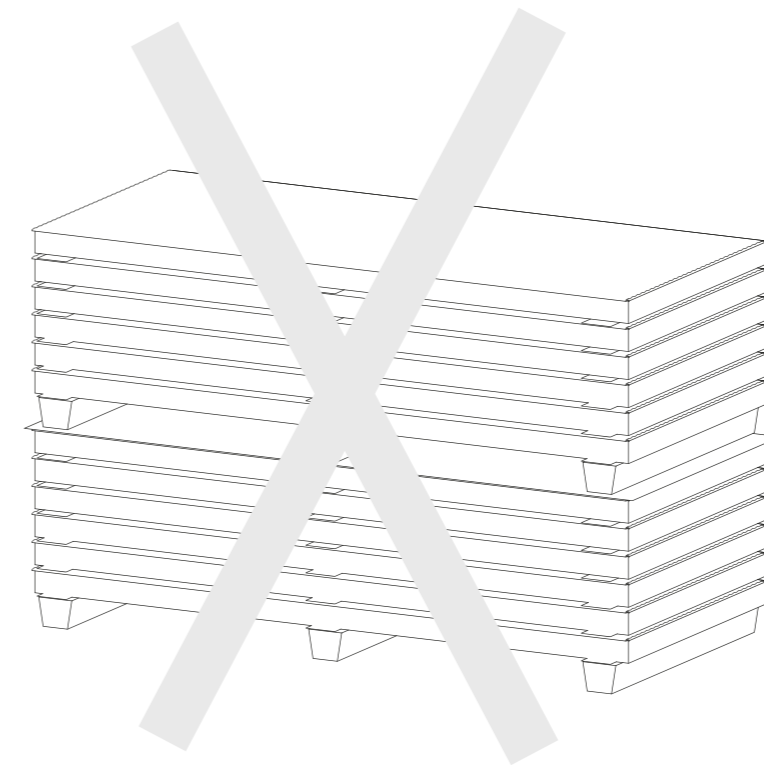


Unloading:
 [1] distance from the belts min. 5 cm

STORAGE



On the construction site, we recommend storing the packages of sandwich panels on factory washers, providing slight inclination - ca. 2% along the side edge. The packages cannot be stacked because this can lead to dents and marks on the facings. Sandwich panels should be kept in closed and ventilated rooms, but no longer than 4 weeks. Storage of the packages outdoors is allowed only for a short time and with proper protection against rain, strong wind, snow or any other kind of pollution. Use air-permeable tarpaulin that allows moisture removal.



To avoid damage to the material it is not recommended to stack the packages.

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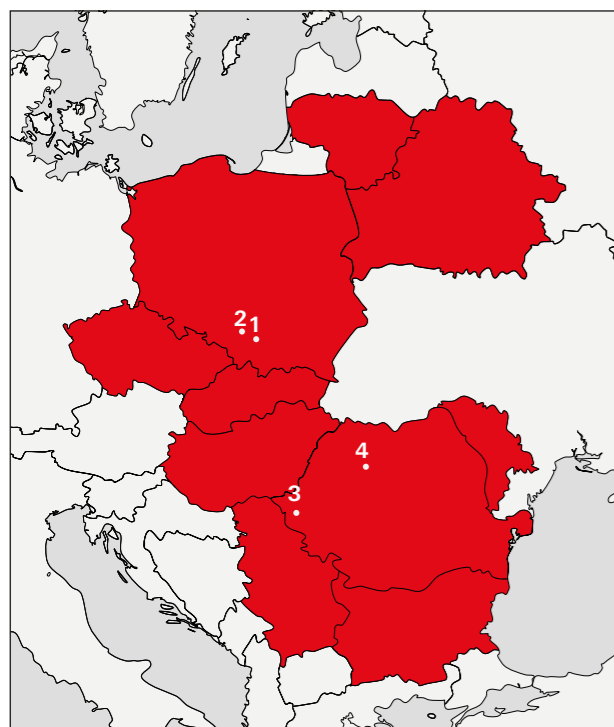
www.bp2.eu

S.C. IMPRO® S.R.L.

Manufacturing and Logistics Centre
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Jucu Herghelie, TETAROM III Jud. Cluj

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