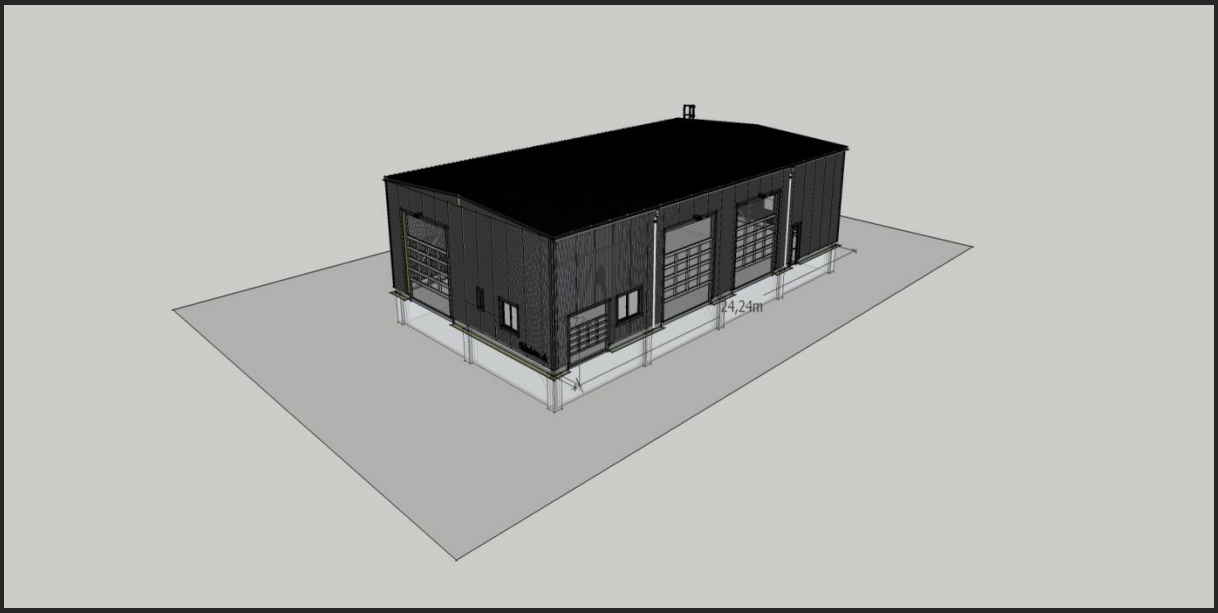
TECHNICAL CATALOG
Sandwich panels

(technical data, examples, visualizations, instructions)

- Sandwich panels with polyurethane or polyisocyanurate (PUR/PIR)
- Sandwich panels with mineral wool
- Sandwich panels with polystyrene core



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Technical catalog

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- **Main technical information about the panels** *(page: 7 – 71)*
  General information about the product, the most important advantages, basic types, thicknesses and joints, main technical data, colors, plating, surface treatments, types of profiles offered, fire resistance, load-bearing capacity of panels, acoustic properties, all certificates.
- **How are sandwich panels assembled?** *(page: 72 – 112)*
  We have summarized in points the most important assembly tips during construction. We drew on twenty European technical catalogs, which are enriched by our own experience. High-quality technical drawings can be found in the second section.
- **Cladding elements and their location** *(page: 113 – 149)*
  Visualizations of the cladding element + placement examples. We offer two types of plating elements: 41 pcs and 33 pcs. The possibility of entering your own parameters.
- **Thin-walled structural profiles** *(page: 150– 152)*
  Cold pressed prisons. Thin-walled cages are intended for use primarily as cages for ceilings, roofs and walls of steel halls.
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What to do when the panels come to you?

packaging, transport, unloading, storage

Packing of panels

During the production process, the sandwich panels are packaged together on wooden pallets or on padded polystyrene blocks. Each panel is covered with a protective film on both sides. This foil is only temporary, it must be removed at least one month after production, otherwise it risks vulcanizing and cannot be removed. The number of pieces in the package depends on the type of panels, thickness and length.

(sample of panel packaging)

(sample of panel packaging)

Transport of panels

Panels are transported by truck to the exact location designated by the client, where the panels will be unloaded. The number of pieces in the package depends on the type of panels, thickness and length. The maximum length of the panels up to 13m is recommended, because above 13m, oversized transportation must be ensured, which can increase the price for such a service. Normally, 2-3 layers of packages placed on top of each other in two rows are transported, fixed with the help of tensioning straps. Packages are loaded and unloaded by crane or forklift.

Example: *100mm PIR wall sandwich panel, which is packed in 11 pieces with a length of up to 13m for standard transport.*

(demonstration of loading and transporting panels)

(demonstration of loading and transporting panels)

Unloading panels at the construction site

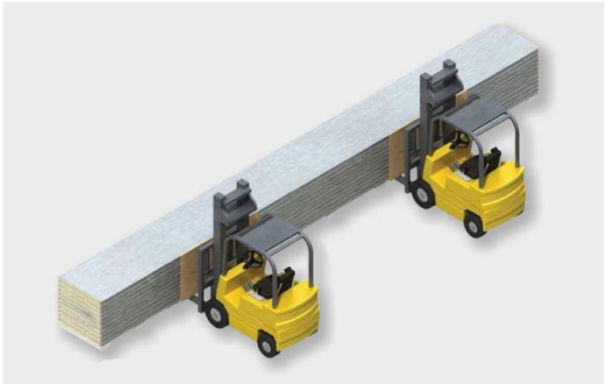
Immediately upon delivery, check that the package is complete and report any discrepancies to the driver. The panels are most often unloaded by crane, forklift, vacuum manipulator or even by hand.

For panels up to 6m long, a forklift is recommended. Over 6m long, two forklifts are used for unloading, a side forklift with a large fork span or a crane with the help of textile nylon belts and wooden boards fixed at several points from the bottom and top of the package together with a cross beam of adequate length. The distance between the strips is a maximum of 4m and the free ends should be shorter than 3m. The wooden boards should have adequate strength, a width of at least 200 mm and a length of approx. 2 cm longer than the package, so as not to damage the panel joints.

Never unload more than one package at a time. The distance of textile strips for panels up to 6 m long must not be less than 2 m. Do not use steel ropes or chains.

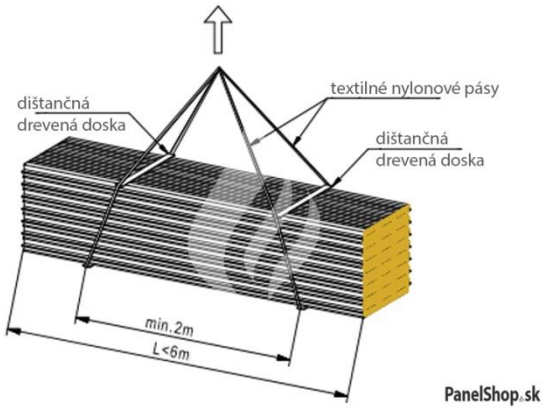
(example of unloading with forklift)

(example of unloading panels with a forklift truck)

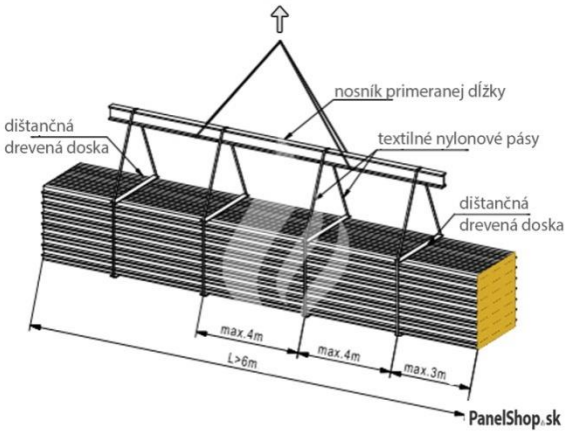


(example of unloading with two forklift)

(example of unloading panels with a side forklift)



(example of unloading panels up to 6m with the help of a crane)



(example of unloading panels over 6m with the help of a crane)

(sample of supporting wooden board)

(sample of the supporting wooden board from the bottom and from the top of the package)

Storage of panels

If the storage period is not longer than one week, there are no special requirements for storing the panels before installation. When storing for more than one week, it is necessary that the panels are stored on a slight slope (min. 2%) using, for example, polystyrene blocks. They must be protected from direct sunlight, rain, wind and pollution in a ventilated place. They can be covered with a protective textile sheet (not plastic foil, due to UV radiation). The protective film on the external (external) profile of the panel must be removed within 4 weeks, because it can vulcanize and cannot be removed afterwards. The maximum number of stored packages on top of each other is two.

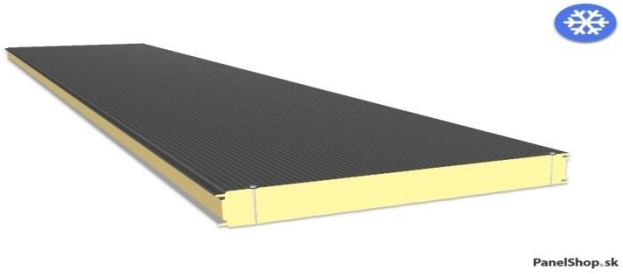
Main technical panel information

colors, plating, profiles, load capacity

The sandwich panel is a hit of the 21st century

The sandwich panel is a hit of the 21st century, everything is slowly being built from it. Everywhere you look, you can see buildings made of panels, such as Tesco, Lidl, Kaufland department stores, industrial parks and zones, various industrial warehouses, garages, workshops, extensions, houses, containers, car repair shops, car showrooms, shops, production halls, freezers and agricultural halls. All these modern buildings are made of sandwich panels (pur/pir, mineral wool, polystyrene core), which have excellent insulating properties and a long service life of over 50 years.

Sandwich panels are prefabricated elements that consist of two facings made of galvanized steel sheet (external and internal) and an insulating core located between them. The insulating cores are either made of hardened polyurethane (PUR), polyisocyanurate foam (PIR), mineral wool or polystyrene. These cores provide high-quality heat and sound insulation with high fire resistance.



The most important advantages of sandwich panels

Excellent insulating properties. The thermal conductivity of panels with polyisocyanurate (PIR) is λ = 0.022 W/m*K. Mineral wool and polystyrene core have the same λ = 0.040 W/m*K. These are better values than precast concrete or classic burnt brick.

Excellent protection against weather conditions, water, wind, rain, snow, corrosion and humidity. In order to maintain these properties and appearance, it is necessary to choose the correct surface treatment (from 25µm to 200µm) according to local conditions. An example can be a farm building, where a 35µm surface finish is recommended due to aggressive ammonia from animal excrement.

Quality sound insulation. By choosing the right core, we can achieve perfect sound insulation parameters. The polyurethane panel has a weighted soundproofing value of Rw=26dB, mineral wool has values of Rw=32dB and the polystyrene core has a value of Rw=23dB.

Excellent fire resistance properties. Mineral wool (EI120) has the best fire-resistant properties, then polyisocyanurate core (EI30) and polystyrene core (EI15) has the weakest properties.

Simple and quick installation, low construction costs. Faster and easier construction than with brick buildings. No construction adhesives, nets, plasters.

They can be applied to all buildings with a steel, wooden, concrete or reinforced concrete structure. The panels are mounted vertically or horizontally indoors, outdoors, on ceiling and roof skeleton structures.

Good strength parameters. Roof panels can withstand snow and wind loads depending on their thickness and climatic zone with a support span of more than 3m. In most cases, wall panels can be used with support spans of up to 6m. The result is real savings in terms of the load-bearing structure and therefore the total cost of the entire building.

Modern aesthetic appearance. Choice of colors (more than 41), types of plating (9 types), types (PUR/PIR, EPS, Mineral wool), thickness (40-250mm), length from 2-18m.

Complete environmental safety, long service life - service life over 50 years.

In short

- *PIR/PUR panels are the most used and have excellent insulating properties*
- *Minerals are the second most used and their main advantage is fire resistance and reaction to fire*
- *EPS panels are the third most used and their main advantage is the low price*

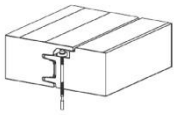
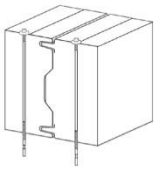
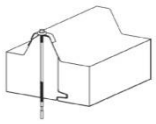
Large range of usability

- Storage space
- Storage space with administration
- Industrial or production warehouse
- Storage space with a shop
- Commercial space
- Car showroom, car service, MOT
- Garage space
- Agricultural warehouse or hall
- Refrigerated or frozen storage
- Storage space with living area
- Family house
- Gyms, swimming pools, water parks
- Food warehouse - tesco, lidl, kaufland
- Department stores – Aupark, StopShop, Mercury market
- Buildings in coastal areas and polluted industrial conditions

(example of a building made of sandwich panels)

Basic types, thicknesses and joints

		Kind of core					
		PUR/PIR		***Polystyrene core (EPS)***		***Mineral wool***	
		core made of rigid polyisocyanurate foam		core made of expanded polystyrene		core made of mineral wool	
		thickness [mm]	modular width [mm]	thickness [mm]	modular width [mm]	thickness [mm]	modular width [mm]
	Wall panel with visible joint. It is mounted on the wall vertically or horizontally.	40 60 80 100 120 140 160 180 200	1150, 1100 ,1000,1080	40 50 60 75 80 100 120 125 140 150 160 175 180 200 250	1150 alebo 1155	40 60 80 100 120 140 150 160 175 180 200 230 250	1000, 1100, 1150

	Wall panel with hidden joint. It is mounted on the wall vertically or horizontally.	60 80 100 120	1000, 1080	***-?***	***-?***	80 100 120 150 150 160 180 200	1000
	Freezer panel with visible joint. It is mounted on the wall vertically or horizontally.	120 140 160 180 200 220	1000, 1100,1150, 1080	***-?***	***-?***	***-?***	***-?***
 	Roof panel	40 60 80 100 120 140 160	1000, 1080	60 75 80 100 120 125 140 150 160 175 200 250	1100,1080 1100,1080	60 80 100 120 140 150 160 175 200 230 250	1000,1080 1000,1080
core density [kg / m3]		40		15		90,100,100	
thermal conductivity λ [W / m * K]		0,022		0,040		0,040	
typical fire resistance class		EI 15/EI 30		EI 15		EI 120	
specific coefficient of acoustic resistance Rw		26		24		32	

Labeling our panels

The standard labeling of sandwich panels in the panel shop has the following format:

Wall	PIR	100.1100	E.SP25/9006 Microlinear 0.5	I.SP15/9006 Linear 0.4
Panel type	Type of core	Thickness. Modular width	External. color, profile type, sheet thickness	Internal color, profile type, sheet thickness

Labeling is defined as follows:

Panel type – wall, facade, roof, wall freezer, wall farm, roof farm, facade farm

Type of core – PIR/PUR polyisocyanurate/polyurethane, EPS polystyrene core, mineral wool

Hrúbka a modulárna šírka (efektívna) – 40-250mm, 1150/1100/1000/1155/1080

Externý profil – externý, typ farby v RAL odtieni, typ profilu, hrúbka plechu 0,4/0,5/0,6/0,7

Interný profil – interný, typ farby v RAL odtieni, typ profilu, hrúbka plechu 0,4/0,5/0,6/0,7

Main technical data about PUR polyurethane and PIR polyisoquinurate panels

Main advantages

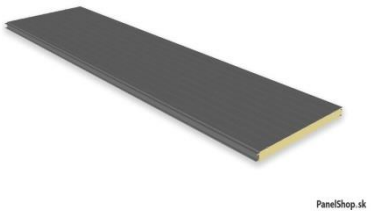
- Quality insulation capabilities. Thermal conductivity has a value of λ = 0.022 W/m*K
- Quality soundproofing properties. The coefficient of acoustic resistance is Rw= 25-27 dB
- PIR panels are characterized by very good fire resistance. Their classes are from EI 15/EI 30-60

- Panel joints guarantee perfect impermeability against water, air and moisture.
- **Three types of wall panels and one type of roof panels are offered**
- Core density is 40 kg / m3
- They can be combined with other types of panels

Wall panels are available in three types:

• **Standard wall panel.** Thickness range: 40 to 200 mm.

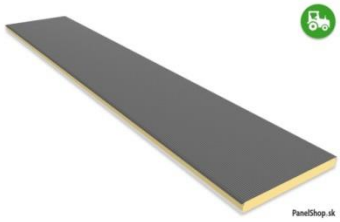
Suitable for walls that are installed vertically or horizontally. Fastening to the structure using screws through the panels with a visible joint.



(Standard wall PIR/PUR panel)

• **Standard wall panel / farmhouse.** Thickness range: 40 to 120 mm. Possibility of thicker sheet metal and thicker paint finish from 35-120µm

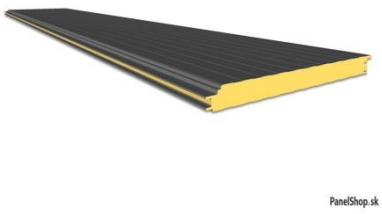
Suitable for walls that are installed vertically or horizontally. Fastening to the structure using screws through the panels with a visible joint.



(Standard wall PIR/PUR panel / farm)

• **Facade wall panel with hidden joint.** Thickness range: 60 to 120 mm. Suitable for walls that are installed vertically or horizontally.

Fastening to the structure using screws inside the panel joint. These panels form a smooth facade without visible joints.

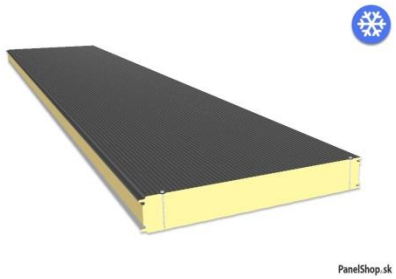


(Facade wall PIR/PUR panel)

• **A coodstorage panel with a visible joint** and with the reverse direction of heat flow.

Unlike standard panels, their joints do not have soft and aluminum gaskets that could form a thermal bridge.

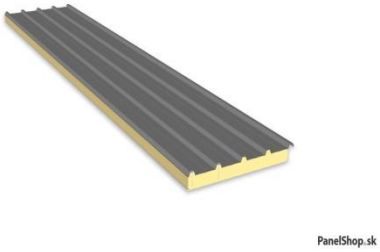
To eliminate heat flow, the core has a tongue and groove joint. Thickness range: 120 to 220 mm. Suitable for the walls of cold stores and freezers, as well as for ceilings and soffits. Panels should be installed outside building structures.



(Refrigerator wall PIR/PUR panel)

Roof panels are available in one type:

• **Roof panel**. Suitable for sloping roofs with a small and medium angle of inclination. These panels have a trapezoidal outer profile. Thickness range: 60 to 160 mm. On request, the roof panels can be made with an overlapping cut-out, which allows longitudinal installation. The cutout can be left- or right-sided.



(Roof PIR/PUR panel)

• **Roof panel / farm.** Suitable for sloping roofs with a small and medium angle of inclination. These panels have a trapezoidal outer profile. Thickness range: 60 to 160 mm.

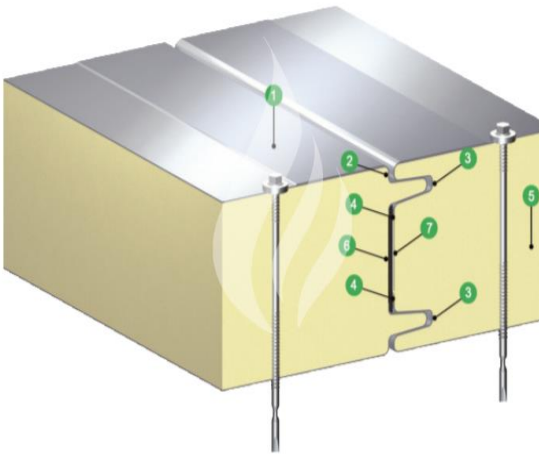
On request, the roof panels can be made with an overlapping cut-out, which allows longitudinal installation. The cutout can be left- or right-sided.

The possibility of using thicker sheet metal and thicker paint surface treatment from 35-120µm

(Roof PIR/PUR farm panel)

Standard wall PUR/PIR sandwich panel

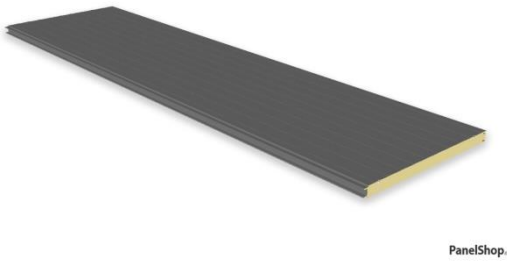
with polyurethane or polyisocyanurate core - visible joint



1. Galvanized steel profile
2. Protective surface treatment
3. The double panel lock guarantees the best fire resistance properties.
4. Profiled edges facilitate assembly and ensure proper thermal insulation performance.
5. Core made of rigid self-extinguishing PIR foam without freons with very good thermal insulation properties.
6. Rigid core of polyurethane or self-extinguishing polyisocyanurate
7. The protective sealing tape prevents diffusion, infiltration of water and gas, and penetration of steam into the insulating core.

Suitable for the construction of external and internal walls of industrial buildings: production halls, warehouses, trade halls, shopping centers, agricultural facilities. Vertical or horizontal installation. PIR core - hard polyisocyanurate foam, thermal conductivity values λ = 0.022 W / m * K, improved fire resistance and density ρ = 40 ± 3 kg / m3.

The most used type of sandwich panel. The thickness of the plating can be from 0.4mm to 0.7mm.



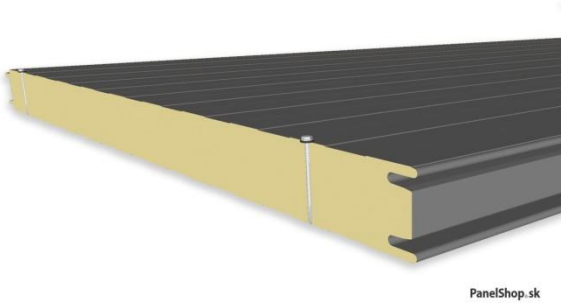
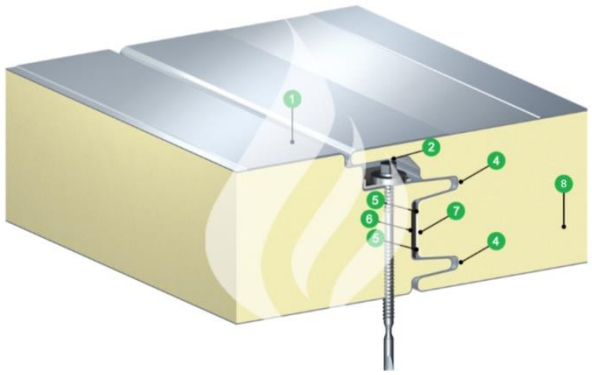


Table of important technical data - standard wall panel

Mechanical properties									
thickness	**40**	**60**	**80**	**100**	**120**	**140**	**160**	**180**	**200**
modular width [mm]	1150, 1000, 1100								
overall width [mm]	modulárna šírka + 18 mm								
length [mm]	2000 - 18000*								
Weight 0,5 / 0,4 [kg / m2]	9,0	9,8	10,6	11,4	12,2	13,0	13,8	14,6	15,4
Weight 0,5 / 0,5 [kg / m2]	9,8	10,6	11,4	12,2	13,0	13,8	14,6	15,4	16,2
Profile (external)	smooth, linear, groove, microlinear, microwave, microgroove, clearline								
Profile (internal)	linear, smooth, groove								
Insulating ability									
U PIR/PIR+ [W/m2K]	0,57	0,37	0,27	0,22	0,18	0,16	0,14	0,12	0,11
Fire properties									
fire resistance PIR	-	EI 15	EI 15	EI 30	EI 30	EI 30	EI 30	EI 30	EI 30
PIR response to fire	B-s2, d0				B-s1, d0				
fire spread	NRO								
Acoustic properties									
acoustic resistance coefficient:									
Rw [dB]	25								
RA1 [dB]	23								
RA2 [dB]	20								
acoustic absorption coefficient αw	0,15								
Tesnosť									
air permeability: pressure	n = 0,8388, C = 0,0116								
air permeability: suction	n = 1,1072, C = 0,0074								
resistance to heavy rain	Class A - absolute impermeability at 1200 Pa								
The panels are manufactured in accordance with PN-EN 14509: 2013 and are marked with									

Facade wall PUR/PIR sandwich panel

with polyurethane or polyisocyanurate core - hidden joint



1. Galvanized steel profile.
2. A hidden joint that gives the facade a uniform appearance.
3. Protective surface treatment
4. The double panel lock guarantees the best fire resistance properties.
5. Profiled edges facilitate assembly and ensure proper thermal insulation performance.
6. The polyurethane seal maintains the correct thermal insulation strength and tightness of the joint - applied during production.
7. The protective sealing tape prevents diffusion, infiltration of water and gas, and penetration of steam into the insulating core.
8. Core made of rigid self-extinguishing PIR foam without freons with very good thermal insulation properties

Suitable for the construction of external and internal walls of industrial buildings: production halls, warehouses, trade halls, shopping centers, agricultural facilities. Vertical or horizontal installation. PIR core - hard polyisocyanurate foam, thermal conductivity values λ = 0.022 W / m * K, improved fire resistance and density ρ = 40 ± 3 kg / m3.

Aesthetic type of sandwich panel. The thickness of the plating can be from 0.4mm to 0.7mm.

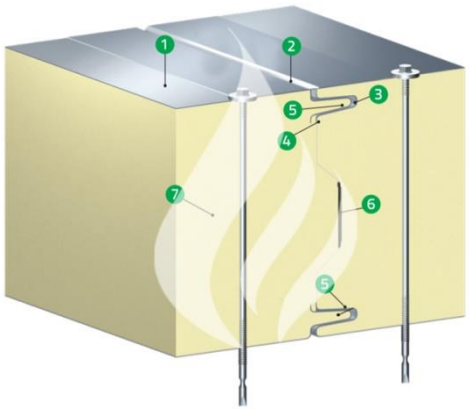
Table of important technical data - facade wall panel

Mechanical properties				
Thickness	**60**	**80**	**100**	**120**
Modular width [mm]	1000, 1080			
Overall width [mm]	modular width + 18 mm			
Length [mm]	2000 - 18000*			
Weight 0,5 / 0,4 [kg / m2]	10,0	10,8	11,6	12,4
Weight 0,5 / 0,5 [kg / m2]	10,9	11,7	12,5	13,3

Profile (external)	smooth, linear, groove, microlinear, microwave, microgroove, clearline			
Profile (internal)	linear, smooth, groove			
Insulating ability				
U PIR/PIR+ [W/m2K]	0,42	0,29	0,22	0,19
Požiarne vlastnosti				
fire resistance PIR	-	EI 15	EI 15	
PIR response to fire	B-s2, d0			
fire spread	NRO			
Acoustic properties				
acoustic resistance coefficient:				
Rw [dB]	26			
RA1 [dB]	23			
RA2 [dB]	21			
acoustic absorption coefficient αw	0,15			
Tightness				
air permeability: pressure	n = 0,7578, C = 0,0335			
air permeability: suction	n = 0,7778, C = 0,0115			
resistance to heavy rain	Class A - absolute impermeability at 1200 Pa			
The panels are manufactured in accordance with PN-EN 14509: 2013 and are marked with				

Refrigeration PUR/PIR sandwich panel

with polyurethane or polyisocyanurate core - hidden joint



1. Galvanized steel unique profile
2. Seal applied during production (optional).
3. Protective surface treatment
4. Profiled edges facilitate assembly and ensure proper thermal insulation performance
5. The double panel lock guarantees the best fire resistance properties.
6. The labyrinth joint eliminates the thermal bridge
7. Core made of rigid self-extinguishing PIR foam without freons with very good thermal insulation properties

Suitable for external and internal walls, as well as for ceilings and soffits of cold stores and freezer rooms. These panels should be installed outside the building structure.

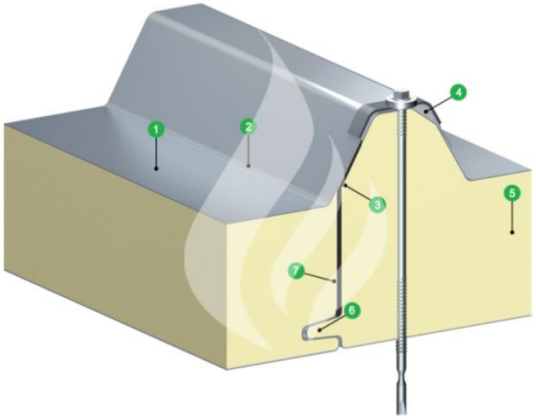
PIR core - hard polyisocyanurate foam, thermal conductivity values λ = 0.022 W / m * K, improved anti-fire properties. Density ρ = 40 ± 3 kg / m3. Vertical or horizontal installation. The thickness of the plating can be from 0.5mm to 0.7mm.

Table of important technical data - refrigeration panel

Mechanical properties						
Thickness	**120**	**140**	**160**	**180**	**200**	**220**
Modular width [mm]	1000, 1100, 1150, 1080					
Overall width [mm]	modulárna šírka + 18 mm					
Length [mm]	2000 - 18000					
Weight 0,5 / 0,4 [kg / m2]	12,2	13,0	13,8	14,6	15,4	16,2
Weight 0,5 / 0,5 [kg / m2]	13,0	13,8	14,6	15,4	16,2	17,0
Profile (external)	smooth, linear, groove, microlinear, microwave, microgroove, clearline					
Profile (internal)	linear, smooth, groove					
Insulating ability						
U PIR/PIR+ [W/m2K]	0,18	0,16	0,14	0,12	0,11	0,10
Fire properties						
Fire resistance PIR	EI 30	EI 30	EI 30	EI 30	EI30/EI60***	EI30/EI60***
PIR response to fire	B-s1, d0					
Fire spread	NRO					
Acoustic properties						
Acoustic resistance coefficient:						
Rw [dB]	27					
RA1 [dB]	24					
RA2 [dB]	22					
Acoustic absorption coefficient αw	0,15					
Tightness						
Air permeability: pressure	n = 1,1983, C = 0,0022					
Air permeability: suction	n = 1,0141, C = 0,0036					
Resistance to heavy rain	Class A - absolute impermeability at 1200 Pa					
The panels are manufactured in accordance with PN-EN 14509: 2013 and are marked with **** panels connected with screws on both sides every 150 mm*						

Roof PUR/PIR sandwich panel

with polyurethane or polyisocyanurate core - visible joint



1. Galvanized steel unique profile.
2. Protective surface treatment.
3. The polyurethane seal maintains the correct thermal insulation strength and tightness of the joint - applied during production.
4. Chamber preventing capillary action.
5. Core made of rigid self-extinguishing PIR foam without freons with very good thermal insulation properties.
6. Profiled edges facilitate assembly and ensure proper thermal insulation performance.
7. The protective sealing tape prevents diffusion, infiltration of water and gas, and penetration of steaminto the insulating core.
8. Straight bottom joint.

Suitable for the construction of industrial buildings: production halls, warehouses, commercial halls, shopping centers, agricultural facilities. PIR core - hard polyisocyanurate foam, thermal conductivity values λ = 0.022 W / m * K, improved fire resistance and density ρ = 40 ± 3 kg / m3. The thickness of the plating can be from 0.4mm to 0.7mm.

Table of important technical data - roof panel

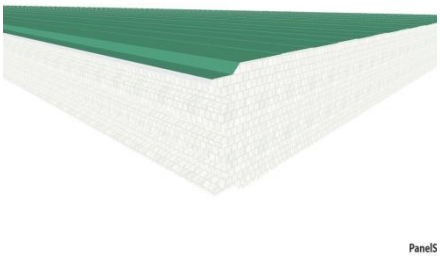
Mechanical properties						
Thickness	**60**	**80**	**100**	**120**	**140**	**160**
Modular width [mm]	1000,1080					
Overall width [mm]	modulárna šírka +74 mm					
Length [mm]	2000 - 18000					
Weight 0,5 / 0,4 [kg / m2]	10,2	11,0	11,8	12,6	13,4	14,2
Weight 0,5 / 0,5 [kg / m2]	11,1	11,9	12,7	13,5	14,3	15,1
Profile (external)	T-trapezoid					
Profile (internal)	linear, smooth, groove					
Insulating ability						

U PIR/PIR+ [W/m2K]	0,35	0,27	0,21	0,18	0,16	0,14
Fire properties						
Fire resistance PIR	-	-	REI 30	REI 30	REI 30	REI 30
PIR response to fire	B-s2, d0		B-s1, d0			
Response to external fire PIR / PIR +	BROOF (t1)a Broof(t2) a Broof(t3)					
Acoustic properties						
Acoustic resistance coefficient:						
Rw [dB]	26					
RA1 [dB]	24					
RA2 [dB]	21					
Acoustic absorption coefficient αw	0,15					
Tightness						
Air permeability: pressure	n = 0,6662, C = 0,0177					
Air permeability: suction	n = 1,2430, C = 0,0044					
Resistance to heavy rain	Class A - absolute impermeability at 1200 Pa					
The panels are manufactured in accordance with PN-EN 14509: 2013 and are marked. *Minimum roof slope > 7% - for panels connected longitudinally or with skylights* *> 5% - for continuous panels and without skylights*						

Main technical data about EPS polystyrene panels

Main advantages

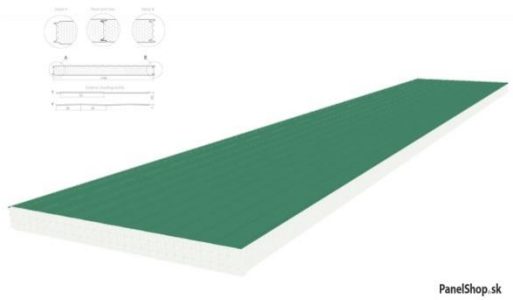
- Fairly good insulating properties. Thermal conductivity has a value of λ = 0.040 W/m*K.
- Satisfactory sound insulation properties. The coefficient of acoustic resistance is Rw= 23-24 dB.
- The fire performance of panels with an EPS core allows the product to be classified as a flame retardant with NRO values.
- Panel joints guarantee perfect impermeability against water, air and moisture.
- One type of wall panels and one type of roof panels are offered
- Core density is 12.5 kg/m3.
- They can be combined with other types of panels.
- They have low weight, thickness from 50-250mm and low price.
- Joints guarantee perfect impermeability against water, air and moisture.



Wall panels are available in one type:

• **Standard wall panel.** Thickness range: 50 to 250 mm. Suitable for walls that are installed vertically or horizontally.

Fastening to the structure using screws through the panels with a visible joint. The panels are intended for covering interior, exterior walls and ceiling skeleton structures.



(Standard wall EPS panel)

Roof panels are available in one type:

• **Roof panel.** Suitable for sloping roofs with a small and medium angle of inclination. These panels have a trapezoidal outer profile. Thickness range: 60 to 250 mm.

On request, the roof panels can be made with an overlapping cut-out, which allows longitudinal installation. The cutout can be left- or right-sided.

(Standard roof EPS panel)

Standard wall EPS sandwich panel

with polystyrene core - visible joint

1. Galvanized steel unique profile
2. Protective surface treatment up to the end of the joint
3. Double panel lock ensures tightness
4. Profiled edges facilitate assembly and ensure proper thermal insulation performance
5. EPS polystyrene core

Suitable for the construction of external and internal walls of industrial buildings: production halls, warehouses, trade halls, shopping centers, agricultural facilities. Vertical or horizontal installation.

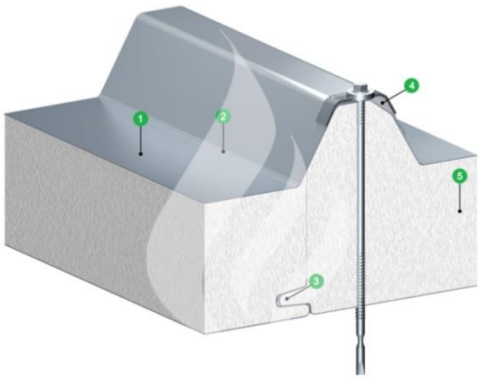
The core is EPS - expanded polystyrene with thermal conductivity λ = 0.040 W / m * K. Core density ρ = 12.5± 3kg/m3 The cheapest type of sandwich panel. The thickness of the plating can be from 0.4mm to 0.6mm.

Table of important technical data - standard wall panel

Mechanical properties														
Thickness	**50***	**60***	**75***	**80**	**100***	**120**	**125***	**140**	**150***	**160**	**175**	**180**	**200**	**250***
Modular width [mm]	1150,1155													
Overall width [mm]	modular width +18 mm													
Length [mm]	2000 - 13000**													
Weight 0,5 / 0,4 [kg / m2]	8,4	8,6	8,8	8,9	9,2	9,5	9,6	9,8	9,9	10,1	10,3	10,4	10,7	11,4
Weight 0,5 / 0,5 [kg / m2]	9,3	9,4	9,7	9,7	10,0	10,3	10,4	10,6	10,8	10,9	11,2	11,3	11,5	12,3
Profile (external)	smooth, linear, groove, microlinear, microwave, microgroove, clearline													
Profile (internal)	linear, smooth, groove													
Insulating ability														
U PIR [W/m2K]	0,74	0,62	0,51	0,46	0,38	0,31	0,31	0,27	0,26	0,24	0,22	0,21	0,20	0,16
Fire properties														
Fire resistance	-				EW15/60, NRO									
Reaction to fire	D-s2/s3, d0													
Acoustic properties														
acoustic resistance coefficient:														
Rw [dB]	23dB													
RA1 [dB]	21dB													
RA2 [dB]	20dB													
acoustic absorption coefficient αw	-													

Tightness	
Air permeability	≤ 1.5 m3 / h * m2 at a pressure difference of 50 Pa
Resistance to heavy rain	Class A - absolute impermeability at 1200 Pa
* AT-15-5340/2014 applies to sandwich panels with panel thickness: 50, 60, 75, 100, 125, 150, 200, 250 [mm] ** maximum length depending on the color of the panel Sandwich panels are manufactured according to technical certificate AT-15-5340-2014 *	

Roof EPS sandwich panel with polystyrene core - visible joint



1. Galvanized steel unique profile
2. Protective surface treatment
3. Profiled edges facilitate assembly and ensure proper thermal insulation performance.
4. Chamber preventing capillary action.
5. EPS polystyrene core

The panels are intended for cladding roof skeleton structures: industrial buildings, production halls, warehouses, shopping halls, shopping centers, agricultural facilities.

Minimum roof slope > 7% - for panels. connected longitudinally or with roof skylights. > 5% - for continuous panels and without skylights. The core is EPS - expanded polystyrene with thermal conductivity λ = 0.040 W/m*K. Core density ρ = 12.5 ± 3kg/m3. The cheapest type of sandwich panel. The sheet thickness can be from 0.4mm to 0.6mm. Panel thicknesses are from 60-250mm.

Table of important technical data - roof panel

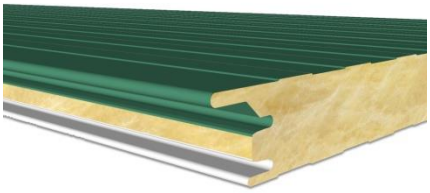
Mechanical properties												
Thickness	**60***	**75***	**80**	**100***	**120**	**125***	**140**	**150***	**160**	**175**	**200***	**250***
Modular width [mm]	1080, 1100											
Total width [mm]	modular width +74 mm											
Length [mm]	2000 - 15000**											
Weight 0,5 / 0,4 [kg / m2]	8,8	9,0	9,1	9,4	9,7	9,7	10,0	10,2	10,3	10,5	10,9	11,7
Weight 0,5 / 0,5 [kg / m2]	9,7	9,9	10,0	10,3	10,6	10,7	10,9	11,0	11,2	11,4	11,8	12,5
Profile (external)	T-trapezoid											
Profile (internal)	linear, smooth, groove											
Insulating ability												

U PJ [W/m2K]	0,61	0,50	0,47	0,38	0,32	0,31	0,28	0,26	0,24	0,22	0,19	0,16
Fire properties												
Fire resistance	RE30											
Fire spread	BROOF (t1)											
Acoustic properties												
acoustic resistance coefficient:												
Rw [dB]	23dB											
RA1 [dB]	21dB											
RA2 [dB]	20dB											
Acoustic absorption coefficient αw	-											
Tightness												
Air permeability	≤ 1.5 m3 / h * m2 at a pressure difference of 50 Pa											
Resistance to heavy rain	Class A - absolute impermeability at 1200 Pa											
* AT-15-5340/2014 applies to sandwich panels with panel thickness: 50, 60, 75, 100, 125, 150, 200, 250 [mm] ** maximum length depending on the color of the panel. *Sandwich panels are manufactured according to technical certificate AT-15-5340-2014 **												

Main technical data about mineral wool panels

Main advantages

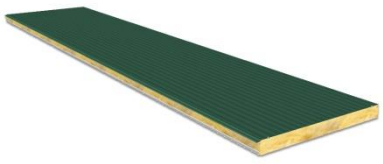
• Fairly good insulating properties. Thermal conductivity has a value of λ = 0.040 W/m*K.
• Very good soundproofing properties. The coefficient of acoustic resistance is Rw= 32 dB. Acoustic absorption αw = 0.15.
• The best fire properties among all types of panels. The product is classified as A2 non-flammable. Fire resistance reaches EI 120.
• Panel joints guarantee perfect impermeability against water, air and moisture.
• Two types of wall panels and one type of roof panels are offered.
• Core density is from 90-110 kg/m3.
• They can be combined with other types of panels.
• Thicknesses from 60-200mm.



Wall panels are available in two types:

• Standard wall panel. Thickness range: 50 to 250 mm. Suitable for walls that are installed vertically or horizontally.

Fastening to the structure using screws through the panels with a visible joint. The



panels are intended for covering interior, exterior walls and ceiling skeleton structures.

(Standard mineral wool wall panel)

• **Facade wall panel** with hidden joints. Thickness range: 80 to 200 mm. Suitable for walls that are installed vertically or horizontally.

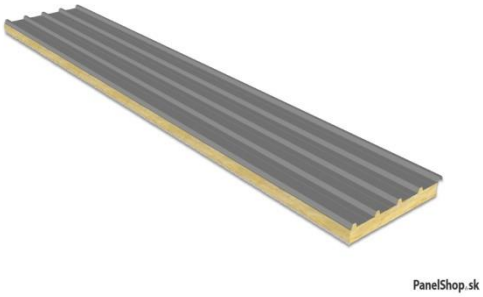
Fastening to the structure using screws inside the panel joint. These panels form a smooth facade without visible joints.

(Facade wall panel made of mineral wool)

Roof panels are available in one type:

• **Roof panel** made of mineral wool. Suitable for sloping roofs with a small and medium angle of inclination. These panels have a trapezoidal outer profile. Thickness range: 60 to 250 mm.

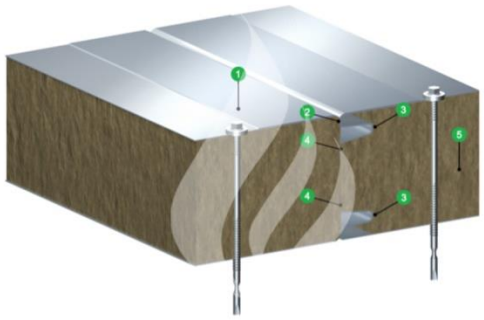
On request, the roof panels can be made with an overlapping cut-out, which allows longitudinal installation. The cutout can be left- or right-sided.



(Rock wool roof panel)

Standard wall sandwich panel made of mineral wool

mineral core - visible joint



1. Galvanized steel unique profile.
2. Protective surface treatment.
3. The double panel lock guarantees the best fire resistance properties.
4. Profiled edges facilitate assembly and ensure proper thermal insulation performance.
5. Core made of hard non-flammable mineral wool (MWF).

Suitable for the construction of external and internal walls of industrial buildings: production halls, warehouses, trade halls, shopping centers, agricultural facilities. Vertical or horizontal installation.

The core is MWF – hard mineral wool with thermal conductivity λ = 0.040 W/m*K. Core density ρ = 90-110 ± 3kg/m3. The best fire-fighting properties. The thickness of the plating can be from 0.5mm to 0.6mm.

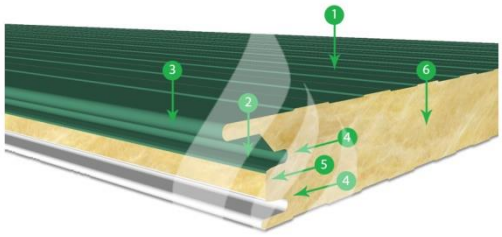
Table of important technical data - standard wall panel

Mechanical properties									
Thickness	**60**	**80**	**100**	**120**	**140**	**150**	**160**	**175**	**200**
Modular width [mm]	1100, 1150								
Overall width [mm]	modular width +18 mm								
Length [mm]	2000 - 15000*								
Weight 0,5 / 0,5 [kg / m2]	15,4	17,6	19,8	22,0	24,2	25,3	26,4	28,0	30,8
Weight 0,5 / 0,6 [kg / m2]	16,2	18,4	20,6	22,8	25,0	26,1	27,2	28,9	31,6
Weight 0,6 / 0,6 [kg / m2]	17,1	19,3	21,5	23,7	25,9	27,0	28,1	29,8	32,5
Profile (external)	smooth, linear, groove, microlinear, microwave, microgroove, clearline								
Profile (internal)	linear, smooth, groove								
Insulating ability									
U PIR [W/m2K]	0,64	0,48	0,39	0,33	0,28	0,26	0,23	0,22	0,20
Fire properties									
Fire resistance	-	EI 45	EI 60			EI 120			
Reaction to fire	A2-s1, d0								

Fire spread	NRO
Acoustic properties	
Acoustic resistance coefficient:	
Rw [dB]	31
RA1 [dB]	30
RA2 [dB]	28
Acoustic absorption coefficient αw	0,15
Tightness	
Air permeability: pressure	n = 0,8388, C = 0,0116
Air permeability: suction	n = 1,1072, C = 0,0074
Air permeability	Absolute impermeability at a pressure difference of -50 / + 50 Pa
Resistance to heavy rain	Class A - absolute impermeability at 1200 Pa
* maximum length depending on the color of the panel ** Maximum fire resistance values, instructions regarding the placement of supports are set The panels are manufactured in accordance with PN-EN 14509: 2013 and are marked with	

Facade wall sandwich panel made of mineral wool

minerálne jadro – skrytý spoj



1. Galvanized steel profile.
2. A hidden joint that gives the facade a uniform appearance.
3. Protective surface treatment.
4. The double panel lock guarantees the best fire resistance properties.
5. Profiled edges facilitate assembly and ensure proper thermal insulation performance.
6. Core made of hard non-flammable mineral wool (MWF).

Suitable for the construction of external and internal walls of industrial buildings: production halls, warehouses, trade halls, shopping centers, agricultural facilities. Vertical or horizontal installation. MWF core - hard mineral wool, thermal conductivity values λ = 0.040 W/m*K, best fire resistance and density

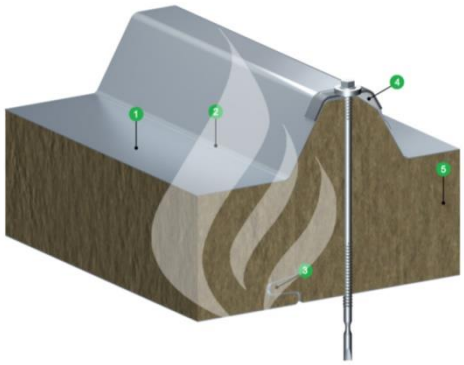
ρ = 110 ± 3 kg / m3. Aesthetic type of sandwich panel. The sheeting thickness can be from 0.5mm to 0.7mm. Panel thicknesses from 80-200mm.

Table of important technical data - facade wall panel

Mechanical properties							
Thickness	**80**	**100**	**120**	**150**	**160**	**180**	**200**
Modular width [mm]	1000, 1050						
Total width [mm]	modular width +50 mm						
Length [mm]	2500 - 15000*						
Weight 0,5 / 0,5 [kg / m2]	17,79	19,80	21,90	25,01	26,10	28,20	30,30
Profile (external)	smooth, linear, groove, microlinear, microwave, microgroove, clearline						
Profil (interný)	linear, smooth, groove						
Insulating ability							
U PIR [W/m2K]	0,48	0,38	0,32	0,26	0,24	0,22	0,20
Fire properties							
Fire resistance	-	EI30	EI60				
Reaction to fire	A2-s2.d0						
Fire spread	NRO*						
Acoustic properties							
acoustic resistance coefficient:							
Rw [dB]	31						
RA1 [dB]	30						
RA2 [dB]	28						
acoustic absorption coefficient αw	0,15						
Tightness							
Air permeability: pressure	n = 0,8388, C = 0,0116						
Air permeability: suction	n = 1,1072, C = 0,0074						
Air permeability	Absolute impermeability at a pressure difference of -50 / + 50 Pa						
odolnosť proti silnému dažďu	Class A - absolute impermeability at 1200 Pa						
* non-spreading fire ** Maximum fire resistance values, instructions regarding the placement of supports are set The panels are manufactured in accordance with PN-EN 14509: 2013 and are marked with							

Roof sandwich panel made of mineral wool

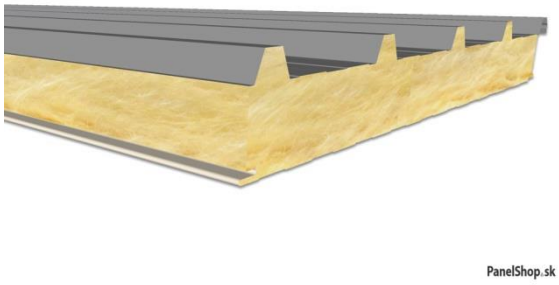
mineral core - visible joint



1. Galvanized steel unique profile.
2. Protective surface treatment.
3. Chamber preventing capillary action.
4. Core made of hard non-flammable mineral wool (MWF).
5. Profiled edges facilitate assembly and ensure proper thermal insulation performance.

The panels are intended for cladding roof skeleton structures: industrial buildings, production halls, warehouses, shopping halls, shopping centers, agricultural facilities.

Minimum roof slope > 7% - for panels. connected longitudinally or with roof skylights. > 5% - for continuous panels and without skylights. The core is MWF – hard mineral wool with thermal conductivity λ = 0.040 W/m*K. Core density ρ = 100-110± 3kg/m3. The best fire-fighting properties. The sheet thickness can be from 0.5mm to 0.7mm. Panel thicknesses are from 60-200mm.



(Sample - Mineral wool roof panel)

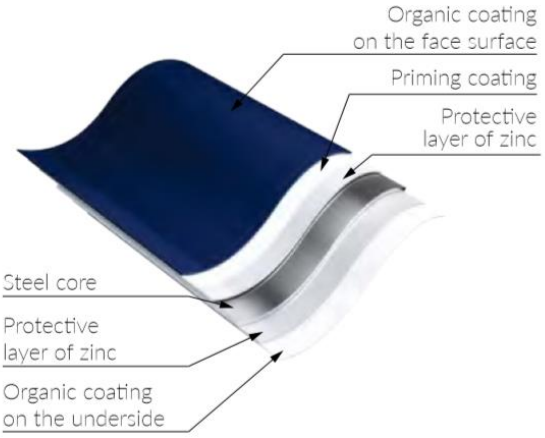
(Sample - Mineral wool roof panel / farm)

Table of important technical data - Roof panel

Mechanical properties									
Thickness	**60**	**80**	**100**	**120**	**140**	**150**	**160**	**175**	**200**
modular width [mm]	1000, 1080								
Total width [mm]	modular width +74								
Length [mm]	2500 - 15000*								
Weight 0,5 / 0,5 [kg / m2]	15,6	17,8	20,0	22,2	24,4	25,5	26,6	28,3	31,0
Weight 0,5 / 0,6 [kg / m2	16,5	18,7	20,9	23,1	25,3	26,4	27,5	29,2	31,9
Weight 0,6 / 0,6 [kg / m2	17,4	19,6	21,8	24,0	26,2	27,3	28,4	30,1	32,8
Profile (external)	T-trapezoid								
Profile (internal)	linear, smooth, groove								
Insulating ability									
U PIR [W/m2K]	0,63	0,48	0,39	0,33	0,28	0,26	0,25	0,23	0,20
Fire properties									
Fire resistance	-	REI90							
Reaction to fire	A2-s1, d0								
Fire spread	BROOF (t1)								
Acoustic properties									
Acoustic resistance coefficient:									
Rw [dB]	32								
RA1 [dB]	31								
RA2 [dB]	28								
acoustic absorption coefficient αw	0,15								
Tightness									
Air permeability: pressure	n = 0,6662, C = 0,0177								
Air permeability: suction	n = 1,2430, C = 0,0044								
Air permeability	Absolute impermeability at a pressure difference of -50 / + 50 Pa								
Resistance to heavy rain	Class A - absolute impermeability at 1200 Pa								
** maximum length depending on the color of the panel* *The panels are manufactured in accordance with PN-EN 14509: 2013 and are marked with*									

Colors and plating

The sandwich panel consists of two colored, galvanized, profiled steel sheets and an inner core. The profile can also be made of stainless steel. The plating is standardly made of DX51, S220GD, S250GD, S280GD, S320 GD hot-rolled steel sheet with a galvanized inorganic layer of 225 g/m2 zinc or 150 g/m2 aluzinc layer. The last layer is an organic or metallic paint in various types of design, depending on the conditions under which it will be used. During production, the panels are covered with a protective film on both sides. This film protects the layers during transport and assembly. The protective film must be removed within 1 month from the date of manufacture.



(Sample - layers of plating and surface treatment)

Sheet metal has a standard thickness of 0.5/0.4 or 0.5/0.5 mm. By default, it can be 0.6-0.7mm. Surface color treatments can be standard, premium or special. Non-standard plating, premium and special colors are applied in non-standard conditions (farm buildings) because the right choice guarantees trouble-free operation and a long life.

R Distribution of color finishes

- Standard - (SP25, SP35, ALUCYNK + Easyfilm®)
- Premium – (HDS, HDX, Prisma) and (CESAR PUR 55®)
- Special - (FarmCoat, FoodSafe) and (PVDF, PCV(F) "food safe", GALVANIZED STEEL)

A more aggressive environment requires a different surface treatment

The cladding of sandwich panels is exposed to various aggressive factors causing corrosion, discoloration or disruption. Such factors are substances present in the external atmosphere, for example water, humidity and chemical pollution of the environment.

They can also be chemicals generated as a result of activities carried out in the facility. Moisture in gyms, swimming pools and car washes, substances produced by animals such as ammonia, by-products of chemical processes taking place inside the building or aggressive cleaning agents used to maintain high hygiene standards in food processing plants.

In addition, UV radiation can have a destructive effect on the appearance of the plating, which can cause loss of gloss and color. In order to correctly choose the type of lining according to the surrounding conditions, and thus ensure a long and trouble-free use of the panels, users must take into account all the above factors. The influence of external conditions on the service life of sheet metal is determined in the standard EN ISO 12944-2. The standard divides the types of environment into aggressiveness classes based on the rate of degradation of the protective zinc coating. The following table shows the classes of aggression:

Loss of zinc thickness in the first year of use		Examples of environments typical of temperate climates (for informational purposes only)		
Corrosion class according to EN ISO 12944-2		M	**Inside**	**Outside**
C1	very low	< 0.1	Heated buildings with a clean atmosphere, e.g. offices, shops, schools, hotels.	-
C2	low	0.1-0.7	Unheated buildings with temporary condensation, e.g. Warehouses, gyms.	Slightly polluted environment. Mainly rural areas.
C3	moderate	0.7-2.1	Rooms with high relative humidity and certain air pollution, e.g. Food plants, laundries, breweries, dairies.	Urban and industrial atmosphere with moderate SO2 pollution. Coastal areas with low salinity.
C4	high	2.1-4.2	Chemical plants, swimming pools, shipyards	Industrial and coastal areas with moderate salinity.
C5-I	very high (industrial)	4.2-8.4	Buildings or areas with almost permanent condensation and heavy pollution.	Industrial areas with high relative humidity and an aggressive atmosphere.
C5-M	very high (seaside)	4.2-8.4		Coastal and island areas with high salinity.

When choosing a surface treatment in terms of UV resistance, the following conditions should be analyzed:

- geographical location (altitude, meters above sea level),
- exposure to sunlight (north - south),
- expected duration of operation of the device
- the importance of aesthetic aspects for the given facility (representative buildings, etc.)

Where a higher quality finish is recommended

Agriculture

One of the most specific environments in which panels are installed are buildings where animals are kept. They are very often exposed to animal excrement containing mainly ammonia and its derivatives. Ammonia is a very aggressive substance, and when in contact with it, most layers corrode and deteriorate quickly. For such conditions, we recommend the special **FarmCoat** surface treatment.

Food industry

When it comes to panels and their lining in the food industry, it is necessary that they have no effect on food products in direct contact. Risk factors for the outer layers are the following: the presence of corrosive organic substances, substances of animal origin such as gas or liquid (blood, acids, fats), the effect of more or less aggressive cleaning agents used to maintain a high hygienic standard or substances used in food processing such as acids, vinegar, etc. For this purpose, we recommend two types of coatings from the offer: FarmCoat or FoodSafe.

Freezer spaces, cold stores, food

Similar requirements apply here as in the food industry. It can be assumed that their intensity is lower, but it is amplified by another negative factor, such as low temperature. In most cases, a standard surface treatment is sufficient. However, if the conditions combine in this way, it is worth considering the use of FoodCoat or FoodSafe coatings.

Chemical plants, industrial, seaside and island areas

These environments fall into the aggressiveness class C4 and C5. In such conditions, we recommend using stainless plating, organic surface treatment over 35 µm (e.g. CESAR PUR 55) or inorganic metallic surfaces (e.g. ALUZINC+EASYFILM).

What else affects the choice of the right color

Sandwich panels consist of three layers: the inner lining, the core and the outer lining. In terms of thermal expansion, stiffness, insulating power, the panels are exposed to harmful effects caused by internal and external temperature differences. The plating is much more stressed by expansion and contraction than the core. This causes stress that can damage the panels. These tensile forces are also increased by choosing a dark RAL color because they absorb more radiation. Light colored panels are less sensitive to this phenomenon. To avoid this problem, it is recommended to shorten the length of individual panels or even remove dark colors and replace them with lighter ones.

Another harmful effect is that sandwich panels always work between two environments with different temperatures. The internal temperature is normally +20 °C, while the external temperature is below zero -30 °C. Completely opposite conditions can occur in the case of freezer rooms, where the internal temperature can reach up to -40 °C, while outside + 30 ° C. To avoid this problem, it is also recommended to shorten the length of individual panels and smooth the correct choice of RAL color.

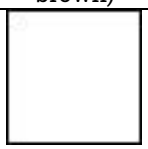
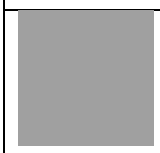
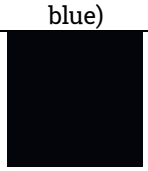
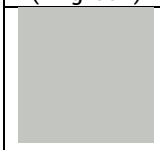
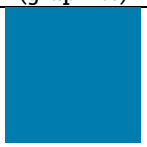
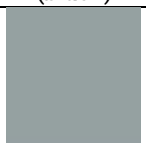
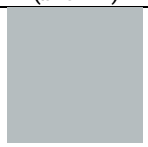
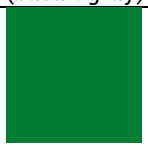
According to the PN-EN 14509: 2013 standard, the temperature of the outer layer (T1) reaches its maximum value in summer and depends on the color and degree of reflection of the surface. T1 values, which are the minimum values for load capacity calculations and are sufficient to calculate the limit conditions of use:

- Very light colors RG = 75-90 T1 = +55ºC
- Light colors RG = 40-74 T1 = +65ºC
- Dark colors RG= 8-39 T1 = +80ºC Where RG is the degree of reflection in relation to magnesium oxide = 100%

All available RAL colors offered

The interior colors of the sandwich panels are available in two basic versions: RAL 9002 and 9010. Other color versions are available on request.

Standard colors

 RAL3000 (fire red)	 RAL3016 (collar red)	 RAL3011 (Red)	 RAL8004 (brick)	 RAL8012 (red-brown)	 RAL8017 (chocolate brown)	 RAL8019 (dark brown)
 RAL6020 (fir green)	 RAL6005 (dark green)	RAL1015 (ivory)	 RAL1003 (signal yellow)	 RAL5010 (signal blue)	 RAL9010 (white)	RAL9002 (gray white)
 RAL9006 (silver)	 RAL9007 (aluminum gray)	 RAL7024 (graphite gray)	 RAL7016 (graphite)	 RAL9005 (black)	 RAL8620M (brick)	 RAL3301M (Red)
 RAL6490 M (fir green)	 RAL7591M (graphite gray)	 RAL7016M (graphite)	 RAL9005M (black)	 RAL8637M (brown)	 RAL7012 (basalt gray)	 RAL6011 (rust green)
 RAL7035 (light grey)	 RAL1002 (sandy)	 RAL5012 (light blue)	 RAL7040 (gloss gray)	 RAL7047 (light gray)	 RAL6029 (mint green)	RAL1021 (yellow)

(M=matte 35µm, color must always be confirmed according to availability)

Premium colors (HDS, HDX, Prisma) and (CESAR PUR 55®)

RAL3009 (cherry)	RAL8004 (brick)	RAL8017 (chocolate brown)	RAL9006 (silver)	RAL9007 (aluminous)	RAL7016 (graphite)	RAL9005 (black)
RAL9010 (white)	RAL1015 (ivory)	RAL7035 (light grey)	RAL9002 (gray white)	RAL1002 (sandy)	RAL1021 (yellow)	RAL5012 (light blue)
RAL6011 (rust green)	RAL7040 (gloss gray)	RAL7047 (light gray)	RAL9006 (silver)	RAL3000 (fire red)	RAL3011 (Red)	RAL5010 (signal blue)
RAL6029 (mint green)	RAL7024 (graphite gray)	RAL8017 (chocolate brown)				

(Color must always be confirmed according to availability)

Special colors (FarmCoat, FoodSafe) and (PVDF, PCV(F) "food safe", GALVANIZED STEEL)

RAL9010 (FoodSafe,FarmCoat)	AZ-ALUZINOK + EASYFILM)	(Z-ZINC)	STAINLESS STEEL	(TITAN ZINC)

The colors listed in the catalog are for information only. Sheet steel tones may vary depending on the material batch and supplier. Panelsho.sk therefore admits the possibility of color differences between the presented samples and the colors of the actually delivered materials. All objections regarding colors after the completion of the work are not accepted and the company panelshop.sk is exempt from any guarantee regarding differences in shades.

Classification of colors according to relative brightness

It is possible that two kinds of colors classified as the same color according to RAL may differ when compared. Due to the fact that slight differences in the shade of the coatings cannot be prevented.

We recommend using very light and bright colors (color groups I and II). We do not recommend using dark facing wall panels in systems with larger spans and lengths. Dark sandwich panels absorb heat very well and are therefore more susceptible to deformation. For this reason, shorter panel lengths are recommended for dark shades.

- Very light colors RG = 75-90 T1 = +55ºC
- Light colors RG = 40-74 T1 = +65ºC
- Dark colors RG= 8-39 T1 = +80ºC

Where RG is the degree of reflection in relation to magnesium oxide = 100%

Table of colors according to brightness

Color group / surface self-heating in summer	RAL colors	RG degree of reflection in relation to magnesium oxide (%)
I - very light colors, temperature up to 55 °C	9010, 9002, 7035, 1015	75-90
II - light colors, temperature up to 65 °C	1002, 1021, 5012, 6011, 7040, 7047, 9006, 9007, 1003, 1021,	40-74
III - dark colors, temperature up to 80 ° C	9005, 5010, 6005, 6020, 7024, 7016, 8019, 8017, 8012, 8004, 3016, 3011, 3009, 3000, 6029, 7012, 9005, 8620M, 3301M, 6490M, 7591M, 7016M, 8637M	8-39

Recommended maximum lengths according to color shade

Core type	Panel type	Color groups		
		I - very light colors [m]	II - light colors [m]	III - dark colors [m]
PUR/PIR	Wall, facade, freezer,	16	12	9
	Rooftop	16	15	12
MWF Mineral wool	Wall, facade	13	9	6
	Rooftop	13	11	9
EPS Polystyrene core	Wall	13	9	6
	Rooftop	15	11	9

Failure to follow the above instructions may cause deformation of the panel surface and local loss of stability, for which we are not responsible.

Technical specifications

surface treatment

Distribution of color finishes

- Standard - (SP25polyester, SP35polyester, ALUCYNK + Easyfilm®)(SP)
- Premium – (HDS, HDX, Prisma) and (CESAR PUR 55®polyurethane)
- Special - (FarmCoat, FoodSafe) and (PVDF, PCV(F) "food safe", GALVANIZED STEEL)

(table of technical data)

	Standard	Premium			Special		
Types of surface treatment	SP (polyester)	HDS (polyester polyurethane)	HDX (polyurethane)	Prisma (polyurethane)	Farm Coating	Food coating	Galvanized steel
Thickness [microns, µm]	25	35	55	50	35	120	20
Surface	smooth	smooth	granular	granular	smooth	smooth	hladký
Bending adhesion	≤ 2 T	≤ 1 T	≤ 1 T	≤ 1 T	≤ 1 T	≤ 1 T	-
Flexibility	≤ 3 T	≤ 2 T	≤ 1,5 T	≤ 2 T	≤ 2 T	≤ 2 T	-
Impact resistance	18J	18J	18J	18J	18J	18J	-
Surface hardness (pencil classification)	HB-H	HB-H	HB-H	HB-H	HB-H	-	-
Scratch resistance	≥ 2,0 kg	≥ 2,2 kg	≥ 3,0 kg	≥ 2,2 kg	≥ 2,0 kg	3,5 - 4 kg	-
Corrosion resistance (salt test by spraying) in	360	500	700	1000	360	500	

hours							
Moisture resistance (QCT) in hours	1000	1500	1500	1000	1500	-	-
Corrosion resistance class	RC3	RC4	RC5	RC5	RC3	RC3	RC4
Resistance to UV radiation (QUV [UVA + H2O] [2000 hour]) - preservation of gloss	≥ 30%; Δ E ≤ 5	≥ 80%; Δ E ≤ 2	≥ 80%; Δ E ≤ 2	≥ 80%; Δ E ≤ 2	≥ 60%; Δ E ≤ 3	-	-
UV resistance category	RUV2	RUV4	RUV4	RUV4	RUV3	-	-
Acid and alkali resistance	3	3-4	3-4	3-4	3-4	-	-
Resistance to alcohols and aliphatic solvents	4	4	4	4	4	-	-
Resistance to ketones	2	2	2	2	4	-	-
Resistance to aromatic solvents	3-4	3-4	3-4	3-4	4	-	-
Resistance to mineral oils	4	4	4	4	4	-	-

Data of stainless steel plating

PUR / PIR panels are also produced with stainless steel cladding.

Marking according to EN 10088	Designation according to AISI / ASTM	Chemical composition (%)								
		C	Si	Mn	P max	S	N	Cr	Mo	Ni
1.4301	304	≤ 0.07	≤ 1.00	≤ 2.00	0.045	≤ 0015	≤ 0.11	17.50 - 19.50	–	8.00 - 10.50

Main information about offered surfaces

Standard SP (polyester, 25µm)

- For regions and conditions with low aggression and not exposed to excessive UV radiation. Intended for the environment of category A1.
- The properties of the plating are: thickness 0.50 mm, Zn225 - zinc, both sides 225g/m2 or AlZn 150 - aluzin, both sides 150g/m2
- The organic coating is a modified polyester coating. The base coat is 5 microns and the topcoat is 20 microns (total 25 µm)
- The corrosion resistance class is RC3
- Recommended for use in moderately aggressive conditions and environments of corrosion category C1-C3. Suitable for almost all European countries.
- The UV resistance class is RUV2

ALUCYNK + Easyfilm

- Metallic coating: 150 and 185 g/m2 surface weight for each side of the cladding
- Coating thickness - 20µm (for 150 g/m2), 25 µm (for 185 g/m2)
- Double-sided heat-applied coating in a continuous process, additionally protected by a thin organic substance SPT (Special Protection Treatment) and Easyfilm (ecological thin organic layer that protects the aluminum coating from discoloration).
- Resistance to higher temperatures, high corrosion resistance, excellent heat and light reflection, good abrasion resistance.

Premium
HDS (polyester and polyurethane, 35µm)

- For regions and conditions with increased aggressiveness. Regions with increased levels of UV radiation (above 900 meters) above sea level).
- The properties of the plating are: thickness 0.50 mm, Zn225 - zinc, both sides 225g/m2
- The organic coating is a modified polyester and polyurethane coating. The base coat is 15 microns and the topcoat is 20 microns (total 35 µm)
- The corrosion resistance class is RC4
- The UV resistance class is RUV4

- Recommended for use in aggressive conditions and environments of corrosion category RC4. For example, chemical plants, water parks, shipyards, industrial and coastal areas with moderate salinity

HDX (polyurethane, 55µm)

- For regions and conditions with very high aggressiveness. Regions with very high levels of UV radiation. Intended for the A4 category environment
- Features of plating are: thickness 0.50 mm, Zn225 - zinc, both sides 225g/m2
- The organic coating is a modified polyurethane coating. The base coat is 25 microns and the topcoat is 30 microns (total 55 µm)
- The corrosion resistance class is RC5
- The class of resistance to UV radiation is RUV4
- Recommended for use in very aggressive conditions and environments of corrosion category RC5. For example, for buildings or areas with almost permanent condensation and heavy pollution, industrial areas with high relative humidity and an aggressive atmosphere, coastal and island areas with high salinity.

Special
Farm coating (polyester, 35µm)

- For the farm and agricultural industry. Only as an interior lining. Intended for the environment of category A5
- Features of plating are: thickness 0.50 mm, Zn225 - zinc, both sides 225g/m2
- Organic coating is a modified polyester coating. The base coat is 15 microns and the topcoat is 20 microns (total 35 µm)
- The corrosion resistance class is RC3
- The class of resistance to UV radiation is RUV3
- Very good chemical resistance to aggressive ammonia

Food coating (polyvinyl, 120µm)

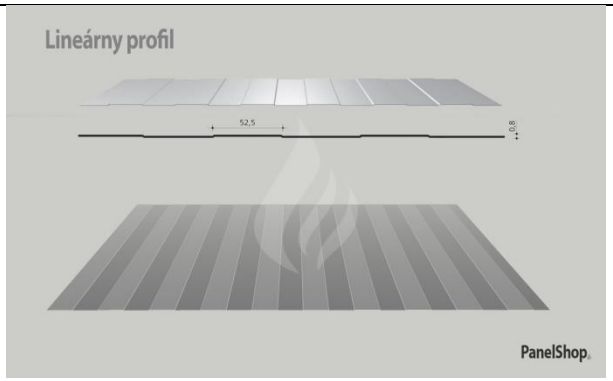
- For the freezer and food industry, where an aggressive and humid internal environment is created. Intended for the environment of category A5
- Sheet metal properties are: thickness 0.50 mm and galvanized layer - 275 g/m2
- The organic coating is a 120µm polyvinyl layer with increased hardness
- Recommended for food processing facilities and cold storage, easy to wash and resistant to most cleaning agents

Galvanized steel (metallic, 120µm)

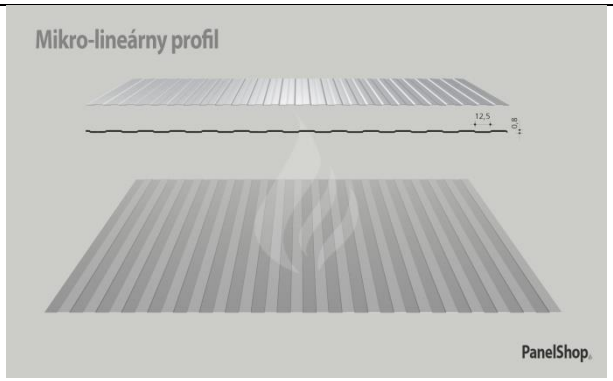
- coating thickness 20µm
- metallic coating with an area weight of 275 g/m2 on one side and the edges are independently covered with zinc
- double-sided coating applied while hot on a metal sheet
- high resistance to corrosion and mechanical damage

Types of profiles offered

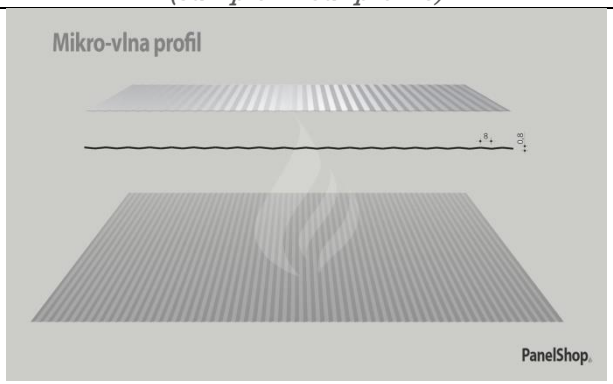
We offer a very wide range of plating. Sheet metal profiles are standardly made of hot-rolled DX51, S220GD, S250GD, S280GD, S320 GD steel sheet with a galvanized inorganic layer of 225 g/m2 zinc or 150 g/m2 aluminum layer. Profiling has a standard thickness of 0.5/0.4 or 0.5/0.5 mm. By default, it can be 0.6-0.7mm. Of course, each type must be agreed upon when ordering.



(sample linear profile)

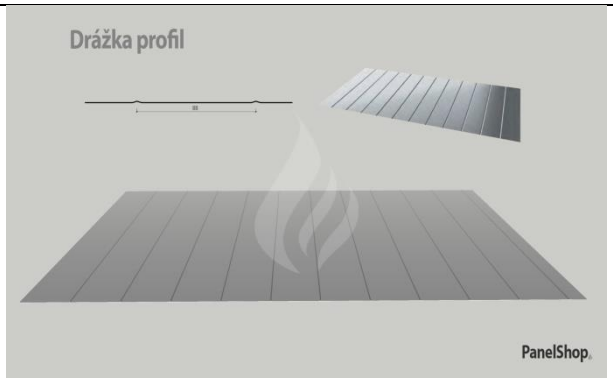


(sample micro-linear profile)

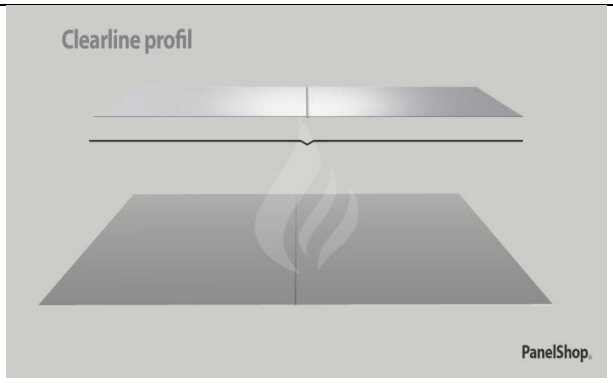


(sample microwave profile)

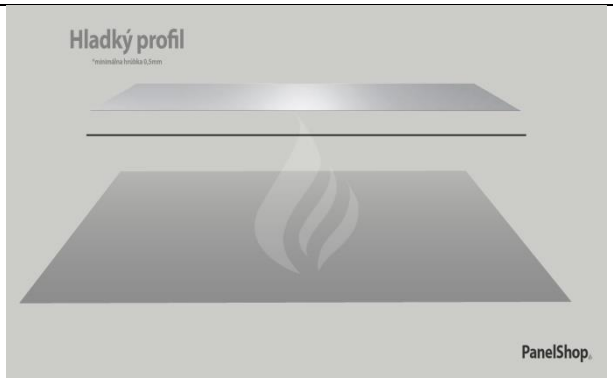
(sample micro-groove profile)



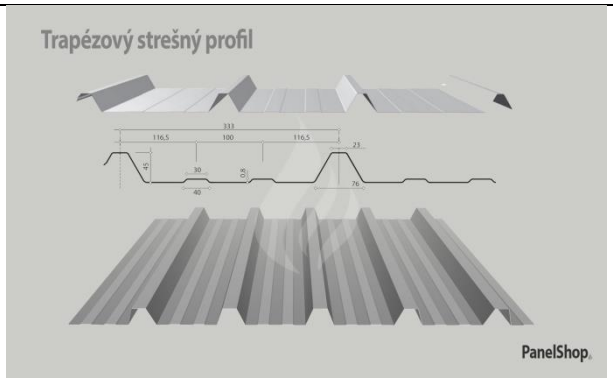
(sample profile groove)



(sample clearline profile)



(smooth profile sample)



(example of trapezoidal roof profile)

Properties of sandwich panels

paneleshop.eu		PUR/PIR Polyurethane/Polyisocyanurate		EPS Polystyrene core		MWF Mineral wool	
		λ		Λ		λ	
		W/m*K	W/m2 *K	W/m*K	W/m2 *K	W/m*K	W/m2 *K
Wall (standard)	40	0,022	0,57	0,040	0,86	0,040	0,96
	50		-		0,74		-
	60		0,37		0,62		0,64
	75		-		0,51		-
	80		0,27		0,46		0,48
	100		0,22		0,38		0,39
	120		0,18		0,31		0,33
	125		-		0,31		-
	140		0,16		0,27		0,28
	150		-		0,26		0,26
	160		0,14		0,24		0,23
	175		-		0,22		0,22
	180		0,12		0,21		-
	200		0,11		0,20		0,20
	230		-		-		0,17
	250		-		0,16		0,16
Facades (hidden joint)	60		0,42		-		-
	80		0,29		-		0,48
	100		0,22		-		0,38
	120		0,19		-		0,32
	150		-		-		0,26
	160		-		-		0,24
	180		-		-		0,22
	200		-		-		0,20
Refrigeration	120	0,022	0,18		-		-
	140		0,16		-		-
	160		0,14		-		-
	180		0,12		-		-
	200		0,11		-		-

	220		0,10		-		-
Rooftop	60		0,36		0,60		0,63
	75		-		0,49		-
	80		0,27		0,47		0,48
	100		0,22		0,38		0,39
	120		0,18		0,32		0,33
	125		-		0,30		-
	140		0,16		0,28		0,28
	150	0,022	-		0,26		0,26
	160		0,14		0,24		0,25
	175		-		0,22		0,23
	200		-		0,19		0,20
	230		-		-		0,19
	250		-		0,16		0,16

Calculations were made on the basis of tests of thermal conductivity λ according to the standard. Using the experimentally determined thermal conductivity, the heat transfer coefficient U was calculated. For the calculation, an operating temperature of + 10 °C was assumed, except for freezer rooms.

In the case of cold rooms and freezers, we recommend the selection of panels based on the heat flow density. This value should be below 10 W/m2.

The table below shows the heat flux density values for the panels depending on the temperature difference on both sides of the panels:

Heat flow density for PUR/PIR panels (W/m2)											
Temperature difference ΔT (°C)	Type of panel										
	Wall PIR 40	Wall PIR 60	Wall PIR 80	Wall PIR 100	Wall PIR 120	Refrigeration PIR 120	Refrigerator / Wall PIR 140	Refrigerator / Wall PIR 160	Refrigerator / Wall PIR 180	Refrigerator / Wall PIR 200	Refrigeration PIR 220
	Heat transfer coefficient U (W/m2*K)										
	0,57	0,37	0,27	0,22	0,18	0,18	0,16	0,14	0,12	0,11	0,10
10	5,70	3,70	2,70	2,20	1,80	1,80	1,60	1,40	1,20	1,10	1,00
15	8,55	5,55	4,05	3,30	2,70	2,70	2,40	2,10	1,80	1,65	1,50
20	11,40	7,40	5,40	4,40	3,60	3,60	3,20	2,80	2,40	2,20	2,00
25	14,25	9,25	6,75	5,50	4,50	4,50	4,00	3,50	3,00	2,75	2,50
30	17,10	11,10	8,10	6,60	5,40	5,40	4,80	4,20	3,60	3,30	3,00
35	19,95	12,95	9,45	7,70	6,30	6,30	5,60	4,90	4,20	3,85	3,50
40	22,80	14,80	10,80	8,80	7,20	7,20	6,40	5,60	4,80	4,40	4,00
45	25,65	16,65	12,15	9,90	8,10	8,10	7,20	6,30	5,40	4,95	4,50
50	28,50	18,50	13,50	11,00	9,00	9,00	8,00	7,00	6,00	5,50	5,00
55	31,35	20,35	14,85	12,10	9,90	9,90	8,80	7,70	6,60	6,05	5,50
60	34,20	22,20	16,20	13,20	10,80	10,80	9,60	8,40	7,20	6,60	6,00
65	37,05	24,05	17,55	14,30	11,70	11,70	10,40	9,10	7,80	7,15	6,50
70	39,90	25,90	18,90	15,40	12,60	12,60	11,20	9,80	8,40	7,70	7,00

75	42,75	27,75	20,25	16,50	13,50	13,50	12,00	10,50	9,00	8,25	7,50
80	45,60	29,60	21,60	17,60	14,40	14,40	12,80	11,20	9,60	8,80	8,00
85	48,45	31,45	22,95	18,70	15,30	15,30	13,60	11,90	10,20	9,35	8,50
90	51,30	33,30	24,30	19,80	16,20	16,20	14,40	12,60	10,80	9,90	9,00
95	54,15	35,15	25,65	20,90	17,10	17,10	15,20	13,30	11,40	10,45	9,50
100	57,00	37,00	27,00	22,00	18,00	18,00	16,00	14,00	12,00	11,00	10,00

Behavior of the panels during fire

Fire safety issues, the behavior of materials in fire and the consequences of fire are becoming increasingly important in building design. The use of materials with better fire resistance parameters has become necessary due to new regulations in force, awareness of fire deaths and changing policies of insurance companies.

Different building materials behave differently during a fire. In order to include materials in the range of burning, the Euroclass evaluation was introduced. This classification allows testing the reaction of different materials to fire according to uniform principles. It determines three main parameters: the effect of the given material on the spread of fire, the volume and rate of smoke generation and also the occurrence of burning material droplets. The following table presents the Euroclass distribution. and basic requirements:

Euroclass (Euroclass).	Fire behavior	Fire spread	Fire growth rate coefficient
A1	no flame attack	non-flammable, negligible heat-generating potential, no spread of fire	-
A2	no flame attack	non-flammable, low heat-generating potential, insignificant fire spread	< 120 W/s
B	no flame attack	flame retardant, very limited fire spread	< 120 W/s
C	at a heat flow of 100 kW, the flame does not burn, flame attack only after 10 minutes at a heat flow of 300kW	limited but visible fire spread	< 250 W/s
D	flame attack only after 2 minutes at a heat flow of 100 kW	significant fire spread	< 750 W/s
E	flame attack only after 2 minutes at a heat flow of 100 kW	kritické šírenie ohňa	> 750 W/s

F	no requirements	not specified	no requirements

For materials that cannot be classified in class A1, two parameters are determined: smoke generation and the occurrence of burning material droplets. Smoke causes panic, chaos and more deaths than flame alone.

Classification	Description
s1	almost no smoke
s2	medium volume and density of smoke
s3	large volume of thick smoke

Burning droplets can cause burns and create new fire spots.

Classification	Description
d0	no burning droplets
d1	few burning droplets
d2	high volume of burning droplets and particles

Example of Euroclass marking:

A1 - Euroclass A1 is the only one and no additional classifications follow.

B-s2, d0 - all other Euroclasses have additional classifications. The B-s2, d0 rating indicates a material that burns slowly, produces a medium volume of smoke, and does not produce burning droplets or particles.

Fire resistance or fire resistance

The fire resistance of a barrier, which is a wall or a roof, means the time during which this barrier is able to maintain its specific properties, for example:

R - load capacity
E – impermeability
I - insulating power

The parameter R indicates the time during which the loaded element is able to maintain its load capacity, while not exceeding the limit values of load capacity and operational safety. In the case of sandwich panels, this parameter applies to roof panels.Parameter E označuje čas, počas ktorého je bariéra schopná tesnosti voči plameňom a dymu.

Parameter I indicates the time during which the barrier is able to meet the conditions of the insulating power and prevent the standard temperature limit values on the side not exposed to the flames from being exceeded.

Some other secondary parameters of sandwich panels are also evaluated:
W - permeability. This classification is reflected directly in the building requirements.

Detailed information on fire resistance of panels - reaction to fire

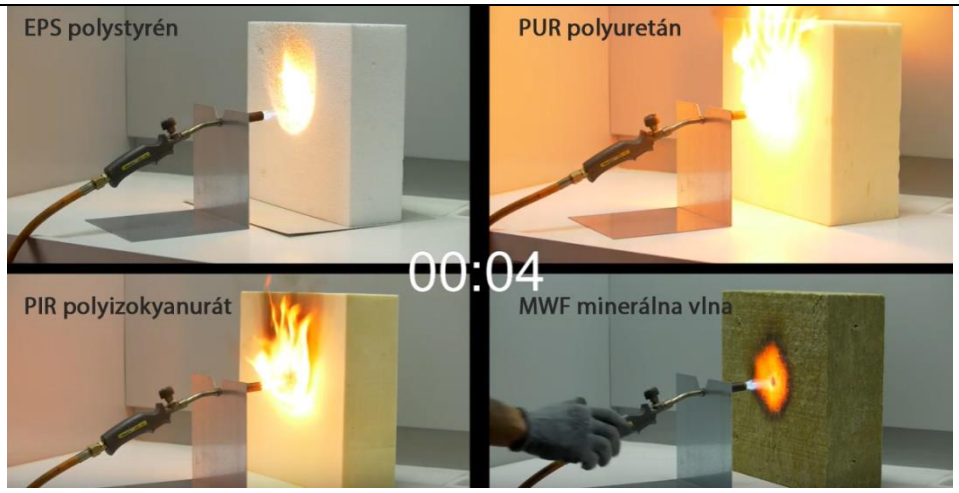
Panel type	Core thickness	Fire resistance class			Reaction to fire	Fire spread	Vertical installation - max. transverse span	Horizontal installation - max. column span
Wall PIR	≥ 60 mm	E30	EI15	EW60	B-s2, d0	NRO	≤ 4,00 m	≤ 4,00 m
	≥ 80 mm	E15	EI15	EW20	B-s1,d0	NRO	≤ 4,00 m	≤ 4,00 m
	≥ 100 mm	E30	EI30	EW30	B-s1,d0	NRO	≤ 3,00 m	≤ 3,00 m
	≥ 120 mm	E30	EI30	EW30	B-s1,d0	NRO	≤ 4,00 m	≤ 4,00 m
		E20	EI20	EW20	B-s1,d0	NRO	≤ 10,52 m	≤ 4,00 m
		E15	EI15	EW15	B-s1,d0	NRO	≤ 11,30 m	≤ 4,00 m
Freezer PIR	≥ 120 mm	E30	EI30	EW30	B-s1,d0	NRO	≤ 4,00 m	≤ 4,00 m
		-	El15	-	B-s1,d0	NRO	≤ 10,95 m	≤ 4,00 m
	≥200mm	E90*	El30*	EW60*	B-s1,d0	NRO	≤12,00m	≤ 4,00 m
		E120*	El60*	EW60*	B-s1,d0	NRO	≤4,00m	≤ 4,00 m
Facade PIR	≥ 60 mm	-	-	-	B-s2,d0	NRO		
	≥ 100 mm	E15	EI15	EW15	B-s2,d0	NRO	≤ 4,00 m	≤ 4,00 m
Wall PUR	≥ 40 mm	-	-	-	B-s2,d0	NRO	-	-
	≥ 80 mm	E15	EI15	EW20	B-s2,d0	NRO	≤ 4,00 m	≤ 4,00 m
Freezer PUR	≥ 120 mm	E20	EI15	EW20	B-s2,d0	NRO	≤ 4,00 m	≤ 4,00 m
		E15	-	EW15	B-s2,d0	NRO	≤ 11,11 m	≤ 4,00 m
PUR facades	≥ 60 mm				B-s2, d0	NRO		
	≥ 100 mm	E15	EI15	EW15	B-s2,d0	NRO	≤ 4,00 m	≤ 4,00 m
Wall mineral wool MWF	≥ 60 mm				A2-s1,d0	NRO		
	≥ 80 mm	E45	EI45	EW45	A2-s1,d0	NRO	≤ 3,00 m	≤ 3,00 m
		E30	EI30	EW30	A2-s1,d0	NRO	≤ 11,62 m	≤ 4,00 m
		E20	EI20	EW20	A2-s1,d0	NRO	≤ 12,00 m	≤ 4,00 m
	≥ 100 mm	E60	EI60	EW60	A2-s1,d0	NRO	≤ 4,00 m	≤ 4,00 m
		E45	EI45	EW45	A2-s1,d0	NRO	≤ 11,78 m	≤ 4,00 m
		E30	EI30	EW30	A2-s1,d0	NRO	≤ 12,00 m	≤ 4,00 m
	≥ 150 mm	E120	EI120	EW120	A2-s1,d0	NRO	≤ 10,60 m	≤ 11,12 m
		E90	EI90	EW90	A2-s1,d0	NRO	≤ 11,39 m	≤ 12,00 m
		E60	EI60	EW60	A2-s1,d0	NRO	≤ 12,00 m	≤ 12,00 m
Wall polystyrene EPS	≥ 100 mm	-	-	-	D-s2,d0	NRO	-	-

*panely spojené skrutkami na oboch stranách každých 150 mm

Panel type	Core thickness	Fire resistance class			Reaction to fire	Resistance to external fire	Max. the distance of the supports	Roof pitch angle
PUR roofing	≥ 40 mm	-	-	-	B-s2, d0	B_{roof} (t_1)	≤ 3m	0° - 15°
	≥ 100 mm	R60	RE60	REI15	B-s2, d0	B_{roof} (t_1)	≤ 3m	0° - 15°
Roof PIR	≥ 60 mm	-	-	-	B-s2, d0	B_{roof} (t_1)	≤ 3m	0° - 15°
	≥ 100 mm	R60	RE60	REI30	B-s1, d0	B_{roof} (t_1)	≤ 3m	0° - 15°
Roofing mineral wool	≥ 60 mm	R60	RE60	EI60-120	A2-s1,d0	B_{roof} (t_1)	≤ 2,4m	0° - 15°
Roof EPS	≥ 60 mm	-	-	-	-	B_{roof} (t_1)	≤ 3m	0° - 15°

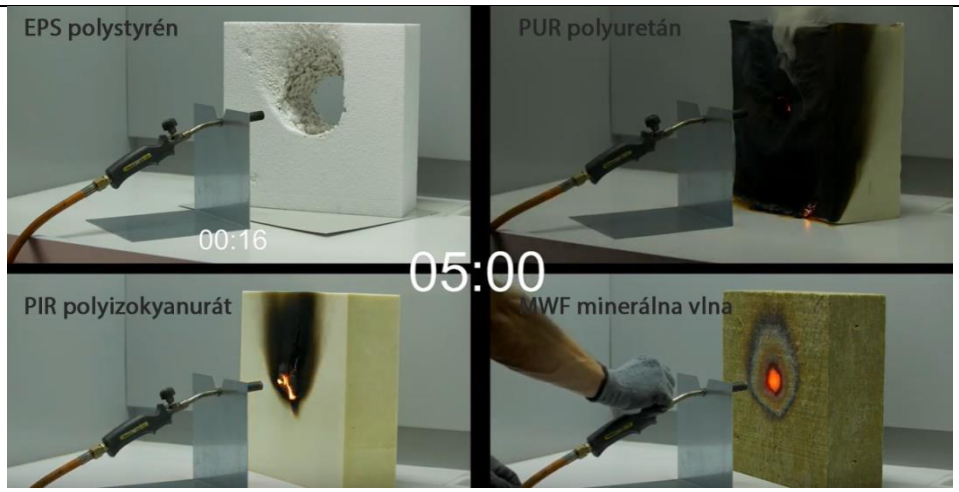
NOTE: The recommended angle of inclination of the roof is min. 3-4°

Comparison of burning panels



At the beginning of the burning

In the middle of a fire



After five minutes of burning

Load capacity of panels

PIR/PUR wall panels. One span system: characteristic maximum load on panels in 0.5/0.4 claddings and micro-profiling / lining profile patters; support width [mm] in brackets

core thickness	load impact direction	Characteristic maximum load [kN/m²] at the given span [m]																
		2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,25	5,50	5,75	6,00
40	pushing	2,78 (45)	2,47 (45)	2,22 (45)	2,02 (45)	1,85 (45)	1,68 (45)	1,45 (41)	1,26 (40)	1,11 (40)	0,98 (40)	0,88 (40)	0,79 (40)	0,71 (40)	0,64 (40)	0,59 (40)	0,54 (40)	0,49 (40)
	suction	-2,16	-1,71	-1,38	-1,14	-0,96	-0,82	-0,71	-0,62	-0,54	-0,48	-0,43	-0,39	-0,35	-0,31	-0,28	-0,26	-0,24
50	pushing	3,37 (55)	2,99 (55)	2,69 (55)	2,45 (55)	2,24 (55)	2,07 (55)	1,82 (52)	1,58 (48)	1,39 (45)	1,23 (43)	1,1 (40)	0,99 (40)	0,89 (40)	0,81 (40)	0,74 (40)	0,67 (40)	0,62 (40)
	suction	-2,69	-2,13	-1,72	-1,42	-1,19	-1,02	-0,88	-0,76	-0,67	-0,6	-0,53	-0,48	-0,43	-0,39	-0,36	-0,32	-0,3
60	pushing	3,9 (63)	3,47 (63)	3,12 (63)	2,84 (64)	2,6 (63)	2,4 (63)	2,19 (62)	1,91 (58)	1,68 (55)	1,49 (52)	1,32 (48)	1,19 (46)	1,07 (44)	0,97 (42)	0,89 (40)	0,81 (40)	0,75 (40)
	suction	-3,21	-2,54	-2,05	-1,7	-1,42	-1,21	-1,05	-0,91	-0,8	-0,71	-0,63	-0,57	-0,51	-0,47	-0,42	-0,39	-0,36
80	pushing	4,82 (78)	4,29 (78)	3,86 (78)	3,51 (78)	3,21 (78)	2,97 (78)	2,75 (78)	2,56 (78)	2,25 (73)	1,99 (69)	1,77 (65)	1,59 (61)	1,44 (59)	1,3 (56)	1,19 (53)	1,08 (51)	1 (49)
	suction	-4,21	-3,33	-2,69	-2,23	-1,87	-1,59	-1,37	-1,19	-1,05	-0,93	-0,83	-0,75	-0,67	-0,61	-0,56	-0,51	-0,47
100	pushing	6,04 (98)	5,37 (98)	4,83 (98)	4,39 (98)	4,03 (98)	3,72 (98)	3,45 (98)	3,21 (98)	2,82 (92)	2,49 (86)	2,22 (81)	2 (77)	1,8 (73)	1,63 (70)	1,49 (67)	1,36 (64)	1,25 (61)
	suction	-5,17	-4,09	-3,31	-2,73	-2,3	-1,96	-1,69	-1,47	-1,29	-1,14	-1,02	-0,91	-0,83	-0,75	-0,68	-0,63	-0,57
120	pushing	7,26 (117)	6,46 (117)	5,81 (117)	5,28 (118)	4,84 (118)	4,47 (118)	4,15 (118)	3,85 (117)	3,39 (110)	3 (103)	2,68 (98)	2,4 (93)	2,17 (88)	1,96 (84)	1,79 (80)	1,64 (77)	1,5 (73)
	suction	-6,08	-4,81	-3,89	-3,22	-2,7	-2,3	-1,98	-1,73	-1,52	-1,34	-1,2	-1,07	-0,97	-0,88	-0,8	-0,73	-0,68

PIR/PUR wall panels. Multi span system: characteristic maximum load on panels in 0.5/0.4 claddings and micro-profiling/ lining profile patters; support width [mm] in brackets.

core thickness	load impact direction	Characteristic maximum load [kN/m²] at the given span [m]																
		2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,25	5,50	5,75	6,00
40	pushing	2,72 (44/88)	2 (40/73)	1,53 (40/62)	1,21 (40/60)	0,97 (40/60)	0,79 (40/60)	0,66 (40/60)	0,55 (40/60)	0,48 (40/60)	0,41 (40/60)	0,36 (40/60)	0,32 (40/60)	0,28 (40/60)	0,26 (40/60)	0,23 (40/60)	0,21 (40/60)	0,19 (40/60)
	suction	-2,16	-1,71	-1,38	-1,14	-0,96	-0,82	-0,71	-0,62	-0,54	-0,48	-0,43	-0,39	-0,35	-0,31	-0,28	-0,26	-0,24
50	pushing	3,36 (55/109)	2,55 (47/93)	1,93 (40/78)	1,51 (40/68)	1,19 (40/60)	0,96 (40/60)	0,79 (40/60)	0,66 (40/60)	0,56 (40/60)	0,48 (40/60)	0,42 (40/60)	0,37 (40/60)	0,33 (40/60)	0,29 (40/60)	0,26 (40/60)	0,24 (40/60)	0,22 (40/60)
	suction	-2,69	-2,13	-1,72	-1,42	-1,19	-1,02	-0,88	-0,76	-0,67	-0,60	-0,53	-0,48	-0,43	-0,39	-0,36	-0,33	-0,30
60	pushing	3,9 (63/126)	3,1 (57/113)	2,32 (47/94)	1,81 (41/81)	1,4 (40/68)	1,11 (40/60)	0,9 (40/60)	0,75 (40/60)	0,63 (40/60)	0,54 (40/60)	0,47 (40/60)	0,41 (40/60)	0,36 (40/60)	0,32 (40/60)	0,29 (40/60)	0,26 (40/60)	0,24 (40/60)
	suction	-3,21	-2,54	-2,05	-1,7	-1,42	-1,21	-1,05	-0,91	-0,80	-0,71	-0,63	-0,57	-0,51	-0,47	-0,42	-0,39	-0,36
80	pushing	4,82 (78/156)	4,17 (76/152)	3,07 (62/124)	2,32 (52/104)	1,75 (43/85)	1,35 (40/71)	1,07 (40/61)	0,87 (40/60)	0,72 (40/60)	0,61 (40/60)	0,52 (40/60)	0,45 (40/60)	0,39 (40/60)	0,34 (40/60)	0,3 (40/60)	0,27 (40/60)	0,24 (40/60)
	suction	-4,21	-3,33	-2,69	-2,23	-1,87	-1,59	-1,37	-1,19	-1,05	-0,93	-0,83	-0,75	-0,67	-0,61	-0,56	-0,51	-0,47
100	pushing	6,04 (98/196)	5,14 (94/187)	3,73 (76/151)	2,68 (60/120)	1,97 (48/96)	1,48 (40/78)	1,14 (40/65)	0,9 (40/60)	0,73 (40/60)	0,6 (40/60)	0,5 (40/60)	0,42 (40/60)	0,36 (40/60)	0,31 (40/60)	0,27 (40/60)	0,24 (40/60)	0,21 (40/60)
	suction	-5,17	-4,09	-3,31	-2,73	-2,3	-1,96	-1,69	-1,47	-1,29	-1,14	-1,02	-0,91	-0,83	-0,75	-0,68	-0,63	-0,57
120	pushing	7,26 (118/235)	5,97 (109/217)	4,18 (85/169)	2,87 (64/128)	2,03 (50/99)	1,48 (40/78)	1,1 (40/63)	0,83 (40/60)	0,65 (40/60)	0,51 (40/60)	0,41 (40/60)	0,34 (40/60)	0,28 (40/60)	0,23 (40/60)	0,19 (40/60)	0,16 (40/60)	0,14 (40/60)
	suction	-6,08	-4,81	-3,89	-3,22	-2,7	-2,3	-1,98	-1,73	-1,52	-1,34	-1,2	-1,07	-0,97	-0,88	-0,8	-0,73	-0,68

Roof PIR/PUR panels. One span system: characteristic maximum load on panels in 0.5/0.4 claddings and trapezoidal / lining profile patters; support width [mm] in brackets.

core thickness	load impact direction	Characteristic maximum load [kN/m²] at the given span [m]																
		2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,25	5,50	5,75	6,00
40/85	pushing	1,7 (40)	1,41 (40)	1,2 (40)	1,02 (40)	0,88 (40)	0,77 (40)	0,67 (40)	0,59 (40)	0,53 (40)	0,47 (40)	0,41 (40)	0,37 (40)	0,33 (40)	0,26 (40)	0,1 (40)	-	-
	suction	-1,90	-1,64	-1,39	-1,20	-1,04	-0,92	-0,81	-0,73	-0,66	-0,60	-0,54	-0,50	-0,46	-0,43	-0,39	-	-
60/105	pushing	2,31 (40)	1,98 (40)	1,72 (40)	1,5 (40)	1,32 (40)	1,17 (40)	1,04 (40)	0,93 (40)	0,84 (40)	0,75 (40)	0,68 (40)	0,61 (40)	0,56 (40)	0,5 (40)	0,46 (40)	0,42 (40)	0,37 (40)
	suction	-2,86	-2,44	-2,10	-1,83	-1,61	-1,42	-1,27	-1,13	-1,02	-0,93	-0,85	-0,77	-0,71	-0,65	-0,60	-0,56	-0,51
80/125	pushing	2,96 (50)	2,59 (49)	2,28 (49)	2,03 (48)	1,81 (47)	1,62 (46)	1,46 (45)	1,31 (43)	1,19 (42)	1,07 (41)	0,98 (40)	0,89 (40)	0,81 (40)	0,74 (40)	0,68 (40)	0,62 (40)	0,57 (40)
	suction	-3,86	-3,33	-2,91	-2,55	-2,25	-2,00	-1,73	-1,50	-1,33	-1,18	-1,06	-0,95	-0,87	-0,79	-0,73	-0,67	-0,62
100/145	pushing	3,49 (59)	3,09 (59)	2,76 (58)	2,48 (58)	2,23 (57)	2,01 (56)	1,82 (55)	1,65 (54)	1,5 (52)	1,37 (51)	1,25 (50)	1,14 (48)	1,04 (47)	0,96 (46)	0,88 (44)	0,81 (43)	0,75 (42)
	suction	-4,91	-4,29	-3,77	-3,30	-2,76	-2,35	-2,03	-1,77	-1,56	-1,39	-1,24	-1,12	-1,02	-0,93	-0,85	-0,79	-0,73
120/165	pushing	3,64 (61)	3,27 (62)	2,96 (63)	2,69 (63)	2,69 (68)	2,24 (62)	2,05 (62)	1,88 (61)	1,72 (60)	1,58 (59)	1,54 (61)	1,34 (56)	1,24 (55)	1,14 (54)	1,06 (53)	0,98 (51)	0,94 (52)
	suction	-6,00	-5,28	-4,59	-3,77	-3,16	-2,69	-2,32	-2,02	-1,78	-1,58	-1,42	-1,28	-1,16	-1,06	-0,97	-0,90	-0,83
160/205	pushing	4,17 (70)	3,8 (72)	3,49 (74)	3,21 (75)	2,97 (76)	2,74 (76)	2,53 (76)	2,34 (75)	2,16 (74)	2 (74)	1,86 (73)	1,72 (71)	1,6 (70)	1,49 (69)	1,38 (68)	1,29 (66)	1,2 (65)
	suction	-7,01	-6,32	-5,70	-4,91	-4,11	-3,49	-3,01	-2,62	-2,31	-2,05	-1,84	-1,65	-1,50	-1,37	-1,25	-1,15	-1,07

Roof PIR/PUR panels. Multi span system: characteristic maximum load on panels in 0.5/0.4 claddings and trapezoidal/ lining profile patters; support width [mm] in brackets.

core thickness	load impact direction	Characteristic maximum load [kN/m²] at the given span [m]																
		2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,25	5,50	5,75	6,00
40/85	pushing	1,7 (40/60)	1,41 (40/60)	1,16 (40/60)	0,97 (40/60)	0,83 (40/60)	0,71 (40/60)	0,62 (40/60)	0,54 (40/60)	0,48 (40/60)	0,43 (40/60)	0,38 (40/60)	0,34 (40/60)	0,3 (40/60)	0,27 (40/60)	0,25 (40/60)	0,22 (40/60)	0,2 (40/60)
	suction	-1,97	-1,64	-1,39	-1,20	-1,04	-0,92	-0,81	-0,73	-0,66	-0,60	-0,54	-0,50	-0,46	-0,43	-0,40	-0,37	-0,35
60/105	pushing	1,93 (40/66)	1,58 (40/61)	1,31 (40/60)	1,11 (40/60)	0,96 (40/60)	0,83 (40/60)	0,73 (40/60)	0,65 (40/60)	0,58 (40/60)	0,52 (40/60)	0,47 (40/60)	0,42 (40/60)	0,38 (40/60)	0,35 (40/60)	0,32 (40/60)	0,29 (40/60)	0,26 (40/60)
	suction	-2,50	-2,08	-1,78	-1,55	-1,36	-1,22	-1,10	-1,00	-0,91	-0,84	-0,78	-0,73	-0,68	-0,64	-0,60	-0,56	-0,52
80/125	pushing	2,11 (40/72)	1,74 (40/67)	1,46 (40/64)	1,25 (40/61)	1,08 (40/60)	0,95 (40/60)	0,84 (40/60)	0,74 (40/60)	0,67 (40/60)	0,6 (40/60)	0,54 (40/60)	0,5 (40/60)	0,45 (40/60)	0,41 (40/60)	0,38 (40/60)	0,35 (40/60)	0,32 (40/60)
	suction	-2,81	-2,36	-2,03	-1,77	-1,57	-1,40	-1,27	-1,16	-1,06	-0,98	-0,91	-0,85	-0,8	-0,75	-0,71	-0,67	-0,62
100/145	pushing	2,29 (40/78)	1,89 (40/73)	1,6 (40/69)	1,37 (40/66)	1,19 (40/63)	1,05 (40/61)	0,93 (40/60)	0,83 (40/60)	0,75 (40/60)	0,68 (40/60)	0,62 (40/60)	0,56 (40/60)	0,51 (40/60)	0,47 (40/60)	0,43 (40/60)	0,4 (40/60)	0,37 (40/60)
	suction	-2,94	-2,48	-2,14	-1,87	-1,66	-1,49	-1,35	-1,24	-1,14	-1,05	-0,98	-0,92	-0,86	-0,81	-0,77	-0,73	-0,69
120/165	pushing	2,45 (42/83)	2,04 (40/79)	1,73 (40/75)	1,49 (40/72)	1,3 (40/69)	1,15 (40/67)	1,02 (40/65)	0,91 (40/63)	0,82 (40/61)	0,75 (40/60)	0,68 (40/60)	0,62 (40/60)	0,57 (40/60)	0,53 (40/60)	0,49 (40/60)	0,45 (40/60)	0,42 (40/60)
	suction	-3,15	-2,66	-2,30	-2,01	-1,79	-1,61	-1,46	-1,34	-1,23	-1,14	-1,07	-1,00	-0,94	-0,89	-0,84	-0,80	-0,77
160/205	pushing	2,53 (43/86)	2,1 (41/82)	1,79 (40/78)	1,54 (40/75)	1,35 (40/72)	1,19 (40/70)	1,06 (40/68)	0,95 (40/66)	0,86 (40/64)	0,78 (40/63)	0,71 (40/61)	0,65 (40/60)	0,6 (40/60)	0,55 (40/60)	0,51 (40/60)	0,47 (40/60)	0,43 (40/60)
	suction	-3,15	-2,67	-2,31	-2,03	-1,80	-1,62	-1,48	-1,35	-1,25	-1,16	-1,08	-1,02	-0,96	-0,91	-0,86	-0,82	-0,78

MWF mineral wool wall panels 1 span arrangement - maximum characteristic loads for MW-W-ST sandwich panels with mineral wool core, in claddings of 0,50 / 0,50 mm thickness Direction of force - TO THE SUPPORT.

MWF mineral wool wall panels																				
Core thickness	Colour group	Condition	Maximum loads [kN/m²] for the span L[m]																	
			1,20	1,50	1,80	2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,10	5,40	5,70	6,00	6,30	6,60
80	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	0,94	0,83	0,73	0,65	0,58	0,53	0,48	0,43
		q_{200}	14,56	10,46	7,75	5,87	4,53	3,55	2,73	2,12	1,66	1,31	1,01	0,74	0,53	0,38	0,26	0,16	0,09	0,03	0,00
		q_{100}	29,13	20,93	15,51	11,75	9,07	7,11	5,66	4,56	3,71	3,06	2,54	2,13	1,81	1,54	1,32	1,13	0,96	0,82	0,71
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	0,94	0,83	0,73	0,65	0,58	0,53	0,48	0,43
		q_{200}	14,56	10,46	7,75	5,87	4,53	3,55	2,73	2,12	1,66	1,31	1,01	0,74	0,53	0,38	0,26	0,16	0,09	0,03	0,00
		q_{100}	29,13	20,93	15,51	11,75	9,07	7,11	5,66	4,56	3,71	3,06	2,54	2,13	1,81	1,54	1,32	1,13	0,96	0,82	0,71
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	0,94	0,83	0,73	0,65	0,58	0,53	0,48	0,43
		q_{200}	14,56	10,46	7,75	5,87	4,53	3,55	2,73	2,12	1,66	1,31	1,01	0,74	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		q_{100}	29,13	20,93	15,51	11,75	9,07	7,11	5,66	4,56	3,71	3,06	2,54	2,13	1,81	1,54	1,32	1,13	0,96	0,82	0,71
100	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,82	0,73	0,66	0,60	0,55
		q_{200}	19,06	13,93	10,50	8,09	6,34	5,03	4,05	3,30	2,66	2,14	1,74	1,42	1,17	0,97	0,76	0,59	0,45	0,34	0,25
		q_{100}	38,13	27,87	21,01	16,19	12,68	10,07	8,11	6,60	5,42	4,50	3,77	3,18	2,71	2,32	2,00	1,73	1,51	1,33	1,17
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,82	0,73	0,66	0,60	0,55
		q_{200}	19,06	13,93	10,50	8,09	6,34	5,03	4,05	3,30	2,66	2,14	1,74	1,42	1,17	0,97	0,76	0,59	0,45	0,34	0,25
		q_{100}	38,13	27,87	21,01	16,19	12,68	10,07	8,11	6,60	5,42	4,50	3,77	3,18	2,71	2,32	2,00	1,73	1,51	1,33	1,17
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,82	0,73	0,66	0,60	0,55
		q_{200}	19,06	13,93	10,50	8,09	6,34	5,03	4,05	3,30	2,66	2,14	1,74	1,42	1,17	0,97	0,76	0,59	0,00	0,00	0,00
		q_{100}	38,13	27,87	21,01	16,19	12,68	10,07	8,11	6,60	5,42	4,50	3,77	3,18	2,71	2,32	2,00	1,73	1,51	1,33	1,17
120	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,66
		q_{200}	23,61	17,48	13,34	10,41	8,25	6,62	5,38	4,42	3,66	3,06	2,56	2,12	1,76	1,48	1,24	1,05	0,90	0,75	0,61
		q_{100}	47,23	34,96	26,69	20,82	16,50	13,25	10,77	8,84	7,32	6,12	5,15	4,37	3,74	3,22	2,78	2,42	2,12	1,86	1,65
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,66
		q_{200}	23,61	17,48	13,34	10,41	8,25	6,62	5,38	4,42	3,66	3,06	2,56	2,12	1,76	1,48	1,24	1,05	0,90	0,75	0,61
		q_{100}	47,23	34,96	26,69	20,82	16,50	13,25	10,77	8,84	7,32	6,12	5,15	4,37	3,74	3,22	2,78	2,42	2,12	1,86	1,65
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,66
		q_{200}	23,61	17,48	13,34	10,41	8,25	6,62	5,38	4,42	3,66	3,06	2,56	2,12	1,76	1,48	1,24	1,05	0,90	0,75	0,61
		q_{100}	47,23	34,96	26,69	20,82	16,50	13,25	10,77	8,84	7,32	6,12	5,15	4,37	3,74	3,22	2,78	2,42	2,12	1,86	1,65
130	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,84	0,75	0,67	0,61	0,55	0,50
		q_{200}	25,90	19,26	14,79	11,59	9,23	7,45	6,08	5,01	4,16	3,49	2,95	2,50	2,09	1,76	1,49	1,27	1,08	0,93	0,80
		q_{100}	51,80	38,53	29,58	23,19	18,47	14,90	12,16	10,02	8,33	6,98	5,90	5,02	4,30	3,70	3,21	2,80	2,45	2,16	1,91
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,84	0,75	0,67	0,61	0,55	0,50
		q_{200}	25,90	19,26	14,79	11,59	9,23	7,45	6,08	5,01	4,16	3,49	2,95	2,50	2,09	1,76	1,49	1,27	1,08	0,93	0,80
		q_{100}	51,80	38,53	29,58	23,19	18,47	14,90	12,16	10,02	8,33	6,98	5,90	5,02	4,30	3,70	3,21	2,80	2,45	2,16	1,91
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,84	0,75	0,67	0,61	0,55	0,50
		q_{200}	25,90	19,26	14,79	11,59	9,23	7,45	6,08	5,01	4,16	3,49	2,95	2,50	2,09	1,76	1,49	1,27	1,08	0,93	0,80
		q_{100}	51,80	38,53	29,58	23,19	18,47	14,90	12,16	10,02	8,33	6,98	5,90	5,02	4,30	3,70	3,21	2,80	2,45	2,16	1,91
140	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,70	0,63
		q_{200}	18,97	14,49	11,44	9,23	7,56	6,27	5,25	4,43	3,77	3,22	2,77	2,40	2,09	1,79	1,54	1,32	1,15	0,99	0,87
		q_{100}	37,95	28,98	22,88	18,46	15,13	12,55	10,51	8,87	7,54	6,45	5,55	4,80	4,18	3,65	3,20	2,83	2,50	2,22	1,98
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,70	0,63
		q_{200}	18,97	14,49	11,44	9,23	7,56	6,27	5,25	4,43	3,77	3,22	2,77	2,40	2,09	1,79	1,54	1,32	1,15	0,99	0,87
		q_{100}	37,95	28,98	22,88	18,46	15,13	12,55	10,51	8,87	7,54	6,45	5,55	4,80	4,18	3,65	3,20	2,83	2,50	2,22	1,98
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,70	0,63
		q_{200}	18,97	14,49	11,44	9,23	7,56	6,27	5,25	4,43	3,77	3,22	2,77	2,40	2,09	1,79	1,54	1,32	1,15	0,99	0,87
		q_{100}	37,95	28,98	22,88	18,46	15,13	12,55	10,51	8,87	7,54	6,45	5,55	4,80	4,18	3,65	3,20	2,83	2,50	2,22	1,98
150	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,68
		q_{200}	20,46	15,67	12,41	10,05	8,26	6,87	5,77	4,89	4,17	3,58	3,08	2,68	2,33	2,04	1,77	1,53	1,33	1,16	1,01
		q_{100}	40,93	31,34	24,82	20,10	16,53	13,75	11,55	9,78	8,34	7,16	6,17	5,36	4,67	4,09	3,59	3,17	2,81	2,50	2,24
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,68
		q_{200}	20,46	15,67	12,41	10,05	8,26	6,87	5,77	4,89	4,17	3,58	3,08	2,68	2,33	2,04	1,77	1,53	1,33	1,16	1,01
		q_{100}	40,93	31,34	24,82	20,10	16,53	13,75	11,55	9,78	8,34	7,16	6,17	5,36	4,67	4,09	3,59	3,17	2,81	2,50	2,24
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,68
		q_{200}	20,46	15,67	12,41	10,05	8,26	6,87	5,77	4,89	4,17	3,58	3,08	2,68	2,33	2,04	1,77	1,53	1,33	1,16	1,01
		q_{100}	40,93	31,34	24,82	20,10	16,53	13,75	11,55	9,78	8,34	7,16	6,17	5,36	4,67	4,09	3,59	3,17	2,81	2,50	2,24

160	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	21,95	16,85	13,38	10,87	8,96	7,48	6,30	5,35	4,58	3,94	3,40	2,96	2,58	2,27	2,00	1,74	1,52	1,33	1,17
		q_{100}	43,91	33,71	26,77	21,74	17,93	14,97	12,61	10,71	9,16	7,88	6,81	5,92	5,17	4,54	4,00	3,54	3,14	2,80	2,50
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	21,95	16,85	13,38	10,87	8,96	7,48	6,30	5,35	4,58	3,94	3,40	2,96	2,58	2,27	2,00	1,74	1,52	1,33	1,17
		q_{100}	43,91	33,71	26,77	21,74	17,93	14,97	12,61	10,71	9,16	7,88	6,81	5,92	5,17	4,54	4,00	3,54	3,14	2,80	2,50
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	21,95	16,85	13,38	10,87	8,96	7,48	6,30	5,35	4,58	3,94	3,40	2,96	2,58	2,27	2,00	1,74	1,52	1,33	1,17
		q_{100}	43,91	33,71	26,77	21,74	17,93	14,97	12,61	10,71	9,16	7,88	6,81	5,92	5,17	4,54	4,00	3,54	3,14	2,80	2,50
180	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	24,94	19,22	15,34	12,52	10,38	8,71	7,38	6,30	5,41	4,67	4,06	3,54	3,11	2,73	2,42	2,14	1,91	1,70	1,50
		q_{100}	49,88	38,45	30,68	25,04	20,76	17,42	14,76	12,60	10,82	9,35	8,12	7,09	6,22	5,47	4,84	4,29	3,82	3,41	3,06
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	24,94	19,22	15,34	12,52	10,38	8,71	7,38	6,30	5,41	4,67	4,06	3,54	3,11	2,73	2,42	2,14	1,91	1,70	1,50
		q_{100}	49,88	38,45	30,68	25,04	20,76	17,42	14,76	12,60	10,82	9,35	8,12	7,09	6,22	5,47	4,84	4,29	3,82	3,41	3,06
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	24,94	19,22	15,34	12,52	10,38	8,71	7,38	6,30	5,41	4,67	4,06	3,54	3,11	2,73	2,42	2,14	1,91	1,70	1,50
		q_{100}	49,88	38,45	30,68	25,04	20,76	17,42	14,76	12,60	10,82	9,35	8,12	7,09	6,22	5,47	4,84	4,29	3,82	3,41	3,06
200	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	27,92	21,60	17,30	14,18	11,81	9,95	8,47	7,26	6,26	5,43	4,74	4,15	3,65	3,22	2,86	2,54	2,27	2,03	1,83
		q_{100}	55,85	43,21	34,61	28,36	23,62	19,91	16,94	14,52	12,53	10,87	9,48	8,31	7,31	6,45	5,72	5,09	4,55	4,07	3,66
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	27,92	21,60	17,30	14,18	11,81	9,95	8,47	7,26	6,26	5,43	4,74	4,15	3,65	3,22	2,86	2,54	2,27	2,03	1,83
		q_{100}	55,85	43,21	34,61	28,36	23,62	19,91	16,94	14,52	12,53	10,87	9,48	8,31	7,31	6,45	5,72	5,09	4,55	4,07	3,66
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	27,92	21,60	17,30	14,18	11,81	9,95	8,47	7,26	6,26	5,43	4,74	4,15	3,65	3,22	2,86	2,54	2,27	2,03	1,83
		q_{100}	55,85	43,21	34,61	28,36	23,62	19,91	16,94	14,52	12,53	10,87	9,48	8,31	7,31	6,45	5,72	5,09	4,55	4,07	3,66
230	I	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	32,41	25,17	20,26	16,69	13,97	11,84	10,13	8,73	7,58	6,61	5,79	5,10	4,50	4,00	3,56	3,18	2,84	2,56	2,30
		q_{100}	64,82	50,35	40,52	33,38	27,95	23,69	20,27	17,47	15,16	13,22	11,59	10,20	9,01	8,00	7,12	6,36	5,69	5,12	4,61
	II	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	32,41	25,17	20,26	16,69	13,97	11,84	10,13	8,73	7,58	6,61	5,79	5,10	4,50	4,00	3,56	3,18	2,84	2,56	2,30
		q_{100}	64,82	50,35	40,52	33,38	27,95	23,69	20,27	17,47	15,16	13,22	11,59	10,20	9,01	8,00	7,12	6,36	5,69	5,12	4,61
	III	q_{dop}	3,80	3,04	2,53	2,17	1,90	1,69	1,52	1,38	1,26	1,17	1,08	1,01	0,95	0,89	0,84	0,80	0,76	0,72	0,69
		q_{200}	32,41	25,17	20,26	16,69	13,97	11,84	10,13	8,73	7,58	6,61	5,79	5,10	4,50	4,00	3,56	3,18	2,84	2,56	2,30
		q_{100}	64,82	50,35	40,52	33,38	27,95	23,69	20,27	17,47	15,16	13,22	11,59	10,20	9,01	8,00	7,12	6,36	5,69	5,12	4,61

Hint:

- qdop - maximum characteristic load in the bearing limit
- q200 - maximum characteristic load at the limit of applicability (diffraction conditions L / 200)
- q100 - maximum characteristic load at the limit of applicability (diffraction conditions L/100)

Color groups:

- I - very light colors
- II - light colors
- III - dark colors

Linear support is assumed. Panels attached with a loop through connectors with aluminum or steel pads. Support width: min. 40mm.

MWF mineral wool wall panels. 1 span arrangement - maximum characteristic loads for MW-W-ST sandwich panels with mineral wool core, in claddings of 0,50 / 0,50 mm thickness. Direction of force - FROM THE SUPPORT.

MWF mineral wool wall panels																					
Core thickness	Colour group	Condition	Maximum loads [kN/m²] for the span L[m]																		
			1,20	1,50	1,80	2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,10	5,40	5,70	6,00	6,30	6,60
80	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,80	-1,49	-1,25	-1,07	-0,92	-0,80	-0,70	-0,62	-0,55	-0,50	-0,45	-0,41	-0,37
		q_{200}	-14,56	-10,46	-7,75	-5,87	-4,53	-3,55	-2,83	-2,28	-1,85	-1,49	-1,20	-0,98	-0,80	-0,66	-0,55	-0,44	-0,34	-0,27	-0,00
		q_{100}	-29,13	-20,93	-15,51	-11,75	-9,07	-7,11	-5,66	-4,56	-3,71	-3,06	-2,54	-2,13	-1,81	-1,54	-1,32	-1,14	-0,99	-0,87	-0,76
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,80	-1,49	-1,25	-1,07	-0,92	-0,80	-0,70	-0,62	-0,55	-0,50	-0,45	-0,41	-0,37
		q_{200}	-14,56	-10,46	-7,75	-5,87	-4,53	-3,55	-2,73	-2,12	-1,66	-1,31	-1,01	-0,74	-0,53	-0,38	-0,26	-0,16	-0,09	-0,03	-0,00
		q_{100}	-29,13	-20,93	-15,51	-11,75	-9,07	-7,11	-5,66	-4,56	-3,71	-3,06	-2,54	-2,13	-1,81	-1,54	-1,32	-1,13	-0,96	-0,82	-0,71
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,80	-1,49	-1,25	-1,07	-0,92	-0,80	-0,70	-0,62	-0,55	-0,50	-0,45	-0,41	-0,37
		q_{200}	-14,56	-10,46	-7,75	-5,76	-4,22	-3,13	-2,33	-1,56	-1,01	-0,62	-0,33	-0,13	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00
		q_{100}	-29,13	-20,93	-15,51	-11,75	-9,07	-7,11	-5,66	-4,56	-3,71	-3,06	-2,49	-2,04	-1,68	-1,39	-1,16	-0,98	-0,82	-0,65	-0,52
		A [pcs]	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2
		R_{Amin}[kN]	-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,48	-4,08	-3,74	-3,47	-3,22	-3,01	-2,81	-2,65	-2,49	-2,40	-2,28	-2,18	-2,07
100	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,34	-1,15	-1,00	-0,88	-0,78	-0,70	-0,62	-0,56	-0,51	-0,46
		q_{200}	-19,06	-13,93	-10,50	-8,09	-6,34	-5,03	-4,05	-3,30	-2,71	-2,25	-1,88	-1,59	-1,33	-1,11	-0,94	-0,79	-0,67	-0,58	-0,49
		q_{100}	-38,13	-27,87	-21,01	-16,19	-12,68	-10,07	-8,11	-6,60	-5,42	-4,50	-3,77	-3,18	-2,71	-2,32	-2,00	-1,73	-1,51	-1,33	-1,17
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,34	-1,15	-1,00	-0,88	-0,78	-0,70	-0,62	-0,56	-0,51	-0,46
		q_{200}	-19,06	-13,93	-10,50	-8,09	-6,34	-5,03	-4,05	-3,30	-2,66	-2,14	-1,74	-1,42	-1,17	-0,97	-0,76	-0,59	-0,45	-0,34	-0,25
		q_{100}	-38,13	-27,87	-21,01	-16,19	-12,68	-10,07	-8,11	-6,60	-5,42	-4,50	-3,77	-3,18	-2,71	-2,32	-2,00	-1,73	-1,51	-1,33	-1,17
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,34	-1,15	-1,00	-0,88	-0,78	-0,70	-0,62	-0,56	-0,51	-0,46
		q_{200}	-19,06	-13,93	-10,50	-8,09	-6,34	-4,89	-3,78	-2,94	-2,31	-1,74	-1,24	-0,87	-0,59	-0,38	-0,21	-0,09	-0,00	-0,00	-0,00
		q_{100}	-38,13	-27,87	-21,01	-16,19	-12,68	-10,07	-8,11	-6,60	-5,42	-4,50	-3,77	-3,18	-2,71	-2,30	-1,94	-1,65	-1,41	-1,21	-1,04
		A [pcs]	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2
		R_{Amin}[kN]	-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,53	-4,52	-4,51	-4,34	-4,02	-3,75	-3,52	-3,32	-3,16	-2,96	-2,82	-2,70	-2,56
120	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,06	-0,94	-0,84	-0,75	-0,68	-0,61	-0,56
		q_{200}	-23,61	-17,48	-13,34	-10,41	-8,25	-6,62	-5,38	-4,42	-3,66	-3,06	-2,57	-2,18	-1,87	-1,61	-1,39	-1,19	-1,02	-0,88	-0,77
		q_{100}	-47,23	-34,96	-26,69	-20,82	-16,50	-13,25	-10,77	-8,84	-7,32	-6,12	-5,15	-4,37	-3,74	-3,22	-2,78	-2,42	-2,12	-1,86	-1,65
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,06	-0,94	-0,84	-0,75	-0,68	-0,61	-0,56
		q_{200}	-23,61	-17,48	-13,34	-10,41	-8,25	-6,62	-5,38	-4,42	-3,66	-3,06	-2,56	-2,12	-1,76	-1,48	-1,24	-1,05	-0,90	-0,75	-0,61
		q_{100}	-47,23	-34,96	-26,69	-20,82	-16,50	-13,25	-10,77	-8,84	-7,32	-6,12	-5,15	-4,37	-3,74	-3,22	-2,78	-2,42	-2,12	-1,86	-1,65
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,06	-0,94	-0,84	-0,75	-0,68	-0,61	-0,56
		q_{200}	-23,61	-17,48	-13,34	-10,41	-8,25	-6,62	-5,38	-4,27	-3,41	-2,75	-2,23	-1,82	-1,38	-1,04	-0,77	-0,55	-0,39	-0,25	-0,15
		q_{100}	-47,23	-34,96	-26,69	-20,82	-16,50	-13,25	-10,77	-8,84	-7,32	-6,12	-5,15	-4,37	-3,74	-3,22	-2,78	-2,42	-2,12	-1,83	-1,59
		A [pcs]	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		R_{Amin}[kN]	-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,53	-4,52	-4,51	-4,54	-4,54	-4,53	-4,24	-4,00	-3,79	-3,57	-3,42	-3,22	-3,10
130	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,53	-1,29	-1,10	-0,94	-0,82	-0,72	-0,64	-0,57	-0,51	-0,46	-0,42	-0,38
		q_{200}	-25,90	-19,26	-14,79	-11,59	-9,23	-7,45	-6,08	-5,01	-4,16	-3,49	-2,95	-2,51	-2,15	-1,85	-1,60	-1,40	-1,22	-1,06	-0,92
		q_{100}	-51,80	-38,53	-29,58	-23,19	-18,47	-14,90	-12,16	-10,02	-8,33	-6,98	-5,90	-5,02	-4,30	-3,70	-3,21	-2,80	-2,45	-2,16	-1,91
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,53	-1,29	-1,10	-0,94	-0,82	-0,72	-0,64	-0,57	-0,51	-0,46	-0,42	-0,38
		q_{200}	-25,90	-19,26	-14,79	-11,59	-9,23	-7,45	-6,08	-5,01	-4,16	-3,49	-2,95	-2,50	-2,09	-1,76	-1,49	-1,27	-1,08	-0,93	-0,80
		q_{100}	-51,80	-38,53	-29,58	-23,19	-18,47	-14,90	-12,16	-10,02	-8,33	-6,98	-5,90	-5,02	-4,30	-3,70	-3,21	-2,80	-2,45	-2,16	-1,91
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,53	-1,29	-1,10	-0,94	-0,82	-0,72	-0,64	-0,57	-0,51	-0,46	-0,42	-0,38
		q_{200}	-25,90	-19,26	-14,79	-11,59	-9,23	-7,45	-6,08	-4,98	-4,01	-3,26	-2,66	-2,18	-1,80	-1,42	-1,09	-0,83	-0,62	-0,46	-0,32
		q_{100}	-51,80	-38,53	-29,58	-23,19	-18,47	-14,90	-12,16	-10,02	-8,33	-6,98	-5,90	-5,02	-4,30	-3,70	-3,21	-2,80	-2,45	-2,16	-1,90
		A [pcs]	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2
		R_{Amin}[kN]	-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,53	-4,19	-3,86	-3,57	-3,29	-3,08	-2,89	-2,73	-2,58	-2,45	-2,33	-2,23	-2,12
140	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,11	-0,98	-0,88	-0,79	-0,71	-0,64	-0,59
		q_{200}	-18,97	-14,49	-11,44	-9,23	-7,56	-6,27	-5,25	-4,43	-3,77	-3,22	-2,77	-2,40	-2,09	-1,82	-1,60	-1,41	-1,25	-1,11	-0,98
		q_{100}	-37,95	-28,98	-22,88	-18,46	-15,13	-12,55	-10,51	-8,87	-7,54	-6,45	-5,55	-4,80	-4,18	-3,65	-3,20	-2,83	-2,50	-2,22	-1,98
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,11	-0,98	-0,88	-0,79	-0,71	-0,64	-0,59
		q_{200}	-18,97	-14,49	-11,44	-9,23	-7,56	-6,27	-5,25	-4,43	-3,77	-3,22	-2,77	-2,40	-2,09	-1,79	-1,54	-1,32	-1,15	-0,99	-0,87
		q_{100}	-37,95	-28,98	-22,88	-18,46	-15,13	-12,55	-10,51	-8,87	-7,54	-6,45	-5,55	-4,80	-4,18	-3,65	-3,20	-2,83	-2,50	-2,22	-1,98
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,11	-0,98	-0,88	-0,79	-0,71	-0,64	-0,59
		q_{200}	-18,97	-14,49	-11,44	-9,23	-7,56	-6,27	-5,25	-4,43	-3,73	-3,10	-2,59	-2,17	-1,83	-1,55	-1,27	-1,01	-0,79	-0,62	-0,47
		q_{100}	-37,95	-28,98	-22,88	-18,46	-15,13	-12,55	-10,51	-8,87	-7,54	-6,45	-5,55	-4,80	-4,18	-3,65	-3,20	-2,83	-2,50	-2,22	-1,98
		A [pcs]	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		R_{Amin}[kN]	-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,53	-4,52	-4,51	-4,54	-4,54	-4,53	-4,44	-4,17	-3,96	-3,76	-3,56	-3,38	-3,27

150	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,06	-0,94	-0,84	-0,76	-0,69	-0,63
		q_{200}	-20,46	-15,67	-12,41	-10,05	-8,26	-6,87	-5,77	-4,89	-4,17	-3,58	-3,08	-2,68	-2,33	-2,04	-1,79	-1,58	-1,40	-1,25	-1,12
		q_{100}	-40,93	-31,34	24,82	-20,10	-16,53	-13,75	-11,55	-9,78	-8,34	-7,16	-6,17	-5,36	-4,67	-4,09	-3,59	-3,17	-2,81	-2,50	-2,24
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,06	-0,94	-0,84	-0,76	-0,69	-0,63
		q_{200}	-20,46	-15,67	-12,41	-10,05	-8,26	-6,87	-5,77	-4,89	-4,17	-3,58	-3,08	-2,68	-2,33	-2,04	-1,77	-1,53	-1,33	-1,16	-1,01
		q_{100}	-40,93	-31,34	-24,82	-20,10	-16,53	13,75	11,55	-9,78	-8,34	-7,16	-6,17	-5,36	-4,67	-4,09	-3,59	-3,17	-2,81	-2,50	-2,24
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,06	-0,94	-0,84	-0,76	-0,69	-0,63
		q_{200}	-20,46	-15,67	-12,41	-10,05	-8,26	-6,87	-5,77	-4,89	-4,17	-3,53	-2,96	-2,50	-2,11	-1,80	-1,53	-1,29	-1,04	-0,83	-0,66
		q_{100}	-40,93	-31,34	-24,82	-20,10	-16,53	-13,75	-11,55	-9,78	-8,34	-7,16	-6,17	-5,36	-4,67	-4,09	-3,59	-3,17	-2,81	-2,50	-2,24
	A [pcs]		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	R_{Amin}[kN]		-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,53	-4,52	-4,51	-4,54	-4,54	-4,53	-4,51	-4,50	-4,23	-4,00	-3,81	-3,64	-3,48
160	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,90	-0,81	-0,74	-0,67
		q_{200}	-21,95	-16,85	-13,38	-10,87	-8,96	-7,48	-6,30	-5,35	-4,58	-3,94	-3,40	-2,96	-2,58	-2,27	-2,00	-1,77	-1,57	-1,40	-1,25
		q_{100}	-43,91	-33,71	-26,77	-21,74	-17,93	-14,97	-12,61	-10,71	-9,16	-7,88	-6,81	-5,92	-5,17	-4,54	-4,00	-3,54	-3,14	-2,80	-2,50
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,90	-0,81	-0,74	-0,67
		q_{200}	-21,95	-16,85	-13,38	-10,87	-8,96	-7,48	-6,30	-5,35	-4,58	-3,94	-3,40	-2,96	-2,58	-2,27	-2,00	-1,74	-1,52	-1,33	-1,17
		q_{100}	-43,91	-33,71	-26,77	-21,74	-17,93	-14,97	-12,61	-10,71	-9,16	-7,88	-6,81	-5,92	-5,17	-4,54	-4,00	-3,54	-3,14	-2,80	-2,50
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,90	-0,81	-0,74	-0,67
		q_{200}	-21,95	-16,85	-13,38	-10,87	-8,96	-7,48	-6,30	-5,35	-4,58	-3,94	-3,35	-2,84	-2,41	-2,06	-1,76	-1,52	-1,31	-1,07	-0,87
		q_{100}	-43,91	-33,71	-26,77	-21,74	-17,93	-14,97	-12,61	-10,71	-9,16	-7,88	-6,81	-5,92	-5,17	-4,54	-4,00	-3,54	-3,14	-2,80	-2,50
	A [pcs]		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	R_{Amin}[kN]		-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,53	-4,52	-4,51	-4,54	-4,54	-4,53	-4,51	-4,54	-4,54	-4,28	-4,06	-3,90	-3,70
180	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,95	-0,91	-0,83	-0,76
		q_{200}	-24,94	-19,22	-15,34	-12,52	-10,38	-8,71	-7,38	-6,30	-5,41	-4,67	-4,06	-3,54	-3,11	-2,73	-2,42	-2,14	-1,91	-1,70	-1,53
		q_{100}	-49,88	-38,45	-30,68	-25,04	-20,76	-17,42	-14,76	-12,60	-10,82	-9,35	-8,12	-7,09	-6,22	-5,47	-4,84	-4,29	-3,82	-3,41	-3,06
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,95	-0,91	-0,83	-0,76
		q_{200}	-24,94	-19,22	-15,34	-12,52	-10,38	-8,71	-7,38	-6,30	-5,41	-4,67	-4,06	-3,54	-3,11	-2,73	-2,42	-2,14	-1,91	-1,70	-1,50
		q_{100}	-49,88	-38,45	-30,68	-25,04	-20,76	-17,42	-14,76	-12,60	-10,82	-9,35	-8,12	-7,09	-6,22	-5,47	-4,84	-4,29	-3,82	-3,41	-3,06
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,95	-0,91	-0,83	-0,76
		q_{200}	-24,94	-19,22	-15,34	-12,52	-10,38	-8,71	-7,38	-6,30	-5,41	-4,67	-4,06	-3,54	-3,04	-2,62	-2,26	-1,96	-1,70	-1,48	-1,29
		q_{100}	-49,88	-38,45	-30,68	-25,04	-20,76	-17,42	-14,76	-12,60	-10,82	-9,35	-8,12	-7,09	-6,22	-5,47	-4,84	-4,29	-3,82	-3,41	-3,06
	A [pcs]		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	R_{Amin}[kN]		-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,53	-4,52	-4,51	-4,54	-4,54	-4,53	-4,51	-4,54	-4,54	-4,51	-4,55	-4,37	-4,19
200	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,95	-0,91	-0,86	-0,82
		q_{200}	-27,92	-21,60	-17,30	-14,18	-11,81	-9,95	-8,47	-7,26	-6,26	-5,43	-4,74	-4,15	-3,65	-3,22	-2,86	-2,54	-2,27	-2,03	-1,83
		q_{100}	-55,85	-43,21	-34,61	-28,36	-23,62	-19,91	-16,94	-14,52	-12,53	-10,87	-9,48	-8,31	-7,31	-6,45	-5,72	-5,09	-4,55	-4,07	-3,66
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,95	-0,91	-0,86	-0,82
		q_{200}	-27,92	-21,60	-17,30	-14,18	-11,81	-9,95	-8,47	-7,26	-6,26	-5,43	-4,74	-4,15	-3,65	-3,22	-2,86	-2,54	-2,27	-2,03	-1,83
		q_{100}	-55,85	-43,21	-34,61	-28,36	-23,62	-19,91	-16,94	-14,52	-12,53	-10,87	-9,48	-8,31	-7,31	-6,45	-5,72	-5,09	-4,55	-4,07	-3,66
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,95	-0,91	-0,86	-0,82
		q_{200}	-27,92	-21,60	-17,30	-14,18	-11,81	-9,95	-8,47	-7,26	-6,26	-5,43	-4,74	-4,15	-3,65	-3,21	-2,79	-2,43	-2,12	-1,86	-1,63
		q_{100}	-55,85	-43,21	-34,61	-28,36	-23,62	-19,91	-16,94	-14,52	-12,53	-10,87	-9,48	-8,31	-7,31	-6,45	-5,72	-5,09	-4,55	-4,07	-3,66
	A [pcs]		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	R_{Amin}[kN]		-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,53	-4,52	-4,51	-4,54	-4,54	-4,53	-4,51	-4,54	-4,54	-4,51	-4,55	-4,52	-4,52
230	I	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,95	-0,91	-0,86	-0,82
		q_{200}	-32,41	-25,17	-20,26	-16,69	-13,97	-11,84	-10,13	-8,73	-7,58	-6,61	-5,79	-5,10	-4,50	-4,00	-3,56	-3,18	-2,84	-2,56	-2,30
		q_{100}	-64,82	-50,35	-40,52	-33,38	-27,95	-23,69	-20,27	-17,47	-15,16	-13,22	-11,59	-10,20	-9,01	-8,00	-7,12	-6,36	-5,69	-5,12	-4,61
	II	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,95	-0,91	-0,86	-0,82
		q_{200}	-32,41	-25,17	-20,26	-16,69	-13,97	-11,84	-10,13	-8,73	-7,58	-6,61	-5,79	-5,10	-4,50	-4,00	-3,56	-3,18	-2,84	-2,56	-2,30
		q_{100}	-64,82	-50,35	-40,52	-33,38	-27,95	-23,69	-20,27	-17,47	-15,16	-13,22	-11,59	-10,20	-9,01	-8,00	-7,12	-6,36	-5,69	-5,12	-4,61
	III	q_{dop}	-4,55	-3,64	-3,03	-2,60	-2,27	-2,02	-1,82	-1,65	-1,51	-1,40	-1,30	-1,21	-1,13	-1,07	-1,01	-0,95	-0,91	-0,86	-0,82
		q_{200}	-32,41	-25,17	-20,26	-16,69	-13,97	-11,84	-10,13	-8,73	-7,58	-6,61	-5,79	-5,10	-4,50	-4,00	-3,56	-3,18	-2,81	-2,48	-2,19
		q_{100}	-64,82	-50,35	-40,52	-33,38	-27,95	-23,69	-20,27	-17,47	-15,16	-13,22	-11,59	-10,20	-9,01	-8,00	-7,12	-6,36	-5,69	-5,12	-4,61
	A [pcs]		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	R_{Amin}[kN]		-4,51	-4,52	-4,51	-4,52	-4,51	-4,52	-4,53	-4,52	-4,51	-4,54	-4,54	-4,53	-4,51	-4,54	-4,54	-4,51	-4,55	-4,52	-4,52

Hint:

- qdop - maximum characteristic load in the bearing limit
- q200 - maximum characteristic load at the limit of applicability (diffraction conditions L / 200)
- q100 - maximum characteristic load at the limit of applicability (diffraction conditions L/100)
- A - arithmetic product of factors for one support
- RAmin - reaction to one support, which must be carried by the factors

Color groups:

- I - very light colors
- II - light colors
- III - dark colors

Linear support is assumed. Panels attached with a loop through connectors with aluminum or steel pads. Support width: min. 40mm.

MWF mineral wool wall panels. A single span system - maximum expected bearing load of sandwich panels with mineral wool core in 0.50 / 0.50 mm thick claddings. Direction of force - TO THE SUPPORT.(8)

MWF mineral wool wall panels																					
Core thickness	Colour group	Condition	Maximum loads [kN/m^2] for the span L[m]																		
			1,20	1,50	1,80	2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,10	5,40	5,70	6,00	6,30	6,60
80	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,45	0,41	0,37
		q_{200}	13,17	9,48	7,04	5,34	4,13	3,24	2,49	1,93	1,51	1,20	0,93	0,68	0,49	0,34	0,23	0,15	0,08	0,03	0,00
		q_{100}	26,35	18,97	14,08	10,69	8,26	6,48	5,16	4,16	3,39	2,80	2,33	1,95	1,65	1,41	1,21	1,03	0,88	0,76	0,65
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,45	0,41	0,37
		q_{200}	13,17	9,48	7,04	5,34	4,13	3,24	2,49	1,93	1,51	1,20	0,93	0,68	0,49	0,34	0,23	0,15	0,08	0,03	0,00
		q_{100}	26,35	18,97	14,08	10,69	8,26	6,48	5,16	4,16	3,39	2,80	2,33	1,95	1,65	1,41	1,21	1,03	0,88	0,76	0,65
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,45	0,41	0,37
		q_{200}	13,17	9,48	7,04	5,34	4,13	3,24	2,49	1,93	1,51	1,20	0,93	0,68	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		q_{100}	26,35	18,97	14,08	10,69	8,26	6,48	5,16	4,16	3,39	2,80	2,33	1,95	1,65	1,41	1,21	1,03	0,88	0,76	0,65
100	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	17,23	12,61	9,52	7,35	5,76	4,58	3,69	3,01	2,43	1,96	1,59	1,30	1,07	0,89	0,70	0,54	0,41	0,31	0,23
		q_{100}	34,47	25,23	19,05	14,7	11,53	9,17	7,39	6,02	4,95	4,11	3,45	2,91	2,48	2,12	1,83	1,59	1,39	1,22	1,07
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	17,23	12,61	9,52	7,35	5,76	4,58	3,69	3,01	2,43	1,96	1,59	1,30	1,07	0,89	0,7	0,54	0,41	0,31	0,23
		q_{100}	34,47	25,23	19,05	14,7	11,53	9,17	7,39	6,02	4,95	4,11	3,45	2,91	2,48	2,12	1,83	1,59	1,39	1,22	1,07
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	17,23	12,61	9,52	7,35	5,76	4,58	3,69	3,01	2,43	1,96	1,59	1,30	1,07	0,89	0,70	0,54	0,00	0,00	0,00
		q_{100}	34,47	25,23	19,05	14,7	11,53	9,17	7,39	6,02	4,95	4,11	3,45	2,91	2,48	2,12	1,83	1,59	1,39	1,22	1,07
120	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	21,33	15,81	12,09	9,44	7,49	6,02	4,90	4,02	3,34	2,79	2,34	1,94	1,61	1,35	1,14	0,96	0,82	0,69	0,55
		q_{100}	42,66	31,62	24,18	18,88	14,99	12,05	9,80	8,05	6,68	5,58	4,71	4,00	3,42	2,94	2,55	2,22	1,94	1,71	1,51
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	21,33	15,81	12,09	9,44	7,49	6,02	4,90	4,02	3,34	2,79	2,34	1,94	1,61	1,35	1,14	0,96	0,82	0,69	0,55
		q_{100}	42,66	31,62	24,18	18,88	14,99	12,05	9,80	8,05	6,68	5,58	4,71	4,00	3,42	2,94	2,55	2,22	1,94	1,71	1,51
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	21,33	15,81	12,09	9,44	7,49	6,02	4,90	4,02	3,34	2,79	2,34	1,94	1,61	1,35	1,14	0,96	0,82	0,69	0,55
		q_{100}	42,66	31,62	24,18	18,88	14,99	12,05	9,80	8,05	6,68	5,58	4,71	4,00	3,42	2,94	2,55	2,22	1,94	1,71	1,51
130	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	23,39	17,42	13,39	10,51	8,38	6,77	5,53	4,56	3,79	3,18	2,69	2,28	1,91	1,61	1,36	1,16	0,99	0,85	0,73
		q_{100}	46,78	34,85	26,78	21,02	16,77	13,55	11,06	9,12	7,59	6,37	5,38	4,58	3,93	3,39	2,94	2,56	2,25	1,98	1,75
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,5	0,47	0,45	0,43
		q_{200}	23,39	17,42	13,39	10,51	8,38	6,77	5,53	4,56	3,79	3,18	2,69	2,28	1,91	1,61	1,36	1,16	0,99	0,85	0,73
		q_{100}	46,78	34,85	26,78	21,02	16,77	13,55	11,06	9,12	7,59	6,37	5,38	4,58	3,93	3,39	2,94	2,56	2,25	1,98	1,75
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	23,39	17,42	13,39	10,51	8,38	6,77	5,53	4,56	3,79	3,18	2,69	2,28	1,91	1,61	1,36	1,16	0,99	0,85	0,73
		q_{100}	46,78	34,85	26,78	21,02	16,77	13,55	11,06	9,12	7,59	6,37	5,38	4,58	3,93	3,39	2,94	2,56	2,25	1,98	1,75
140	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	17,69	13,5	10,65	8,59	7,03	5,83	4,88	4,11	3,49	2,99	2,57	2,22	1,93	1,65	1,42	1,22	1,06	0,92	0,8
		q_{100}	35,39	27,01	21,31	17,18	14,07	11,66	9,76	8,23	6,99	5,98	5,14	4,45	3,87	3,38	2,96	2,61	2,31	2,05	1,83
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	17,69	13,5	10,65	8,59	7,03	5,83	4,88	4,11	3,49	2,99	2,57	2,22	1,93	1,65	1,42	1,22	1,06	0,92	0,80
		q_{100}	35,39	27,01	21,31	17,18	14,07	11,66	9,76	8,23	6,99	5,98	5,14	4,45	3,87	3,38	2,96	2,61	2,31	2,05	1,83
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	17,69	13,5	10,65	8,59	7,03	5,83	4,88	4,11	3,49	2,99	2,57	2,22	1,93	1,65	1,42	1,22	1,06	0,92	0,8
		q_{100}	35,39	27,01	21,31	17,18	14,07	11,66	9,76	8,23	6,99	5,98	5,14	4,45	3,87	3,38	2,96	2,61	2,31	2,05	1,83

150	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	19,08	14,61	11,56	9,35	7,68	6,39	5,36	4,54	3,87	3,32	2,86	2,48	2,16	1,89	1,63	1,41	1,23	1,07	0,93
		q_{100}	38,17	29,22	23,12	18,71	15,37	12,78	10,73	9,08	7,74	6,64	5,72	4,96	4,32	3,78	3,32	2,93	2,60	2,31	2,07
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	19,08	14,61	11,56	9,35	7,68	6,39	5,36	4,54	3,87	3,32	2,86	2,48	2,16	1,89	1,63	1,41	1,23	1,07	0,93
		q_{100}	38,17	29,22	23,12	18,71	15,37	12,78	10,73	9,08	7,74	6,64	5,72	4,96	4,32	3,78	3,32	2,93	2,60	2,31	2,07
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	19,08	14,61	11,56	9,35	7,68	6,39	5,36	4,54	3,87	3,32	2,86	2,48	2,16	1,89	1,63	1,41	1,23	1,07	0,93
		q_{100}	38,17	29,22	23,12	18,71	15,37	12,78	10,73	9,08	7,74	6,64	5,72	4,96	4,32	3,78	3,32	2,93	2,60	2,31	2,07
160	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,5	0,47	0,45	0,43
		q_{200}	20,48	15,71	12,47	10,12	8,34	6,96	5,86	4,97	4,25	3,65	3,15	2,74	2,39	2,10	1,85	1,61	1,41	1,23	1,08
		q_{100}	40,96	31,42	24,94	20,24	16,68	13,92	11,72	9,94	8,50	7,3	6,31	5,48	4,79	4,20	3,70	3,27	2,90	2,58	2,31
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	20,48	15,71	12,47	10,12	8,34	6,96	5,86	4,97	4,25	3,65	3,15	2,74	2,39	2,10	1,85	1,61	1,41	1,23	1,08
		q_{100}	40,96	31,42	24,94	20,24	16,68	13,92	11,72	9,94	8,50	7,3	6,31	5,48	4,79	4,20	3,70	3,27	2,90	2,58	2,31
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	20,48	15,71	12,47	10,12	8,34	6,96	5,86	4,97	4,25	3,65	3,15	2,74	2,39	2,10	1,85	1,61	1,41	1,23	1,08
		q_{100}	40,96	31,42	24,94	20,24	16,68	13,92	11,72	9,94	8,50	7,30	6,31	5,48	4,79	4,20	3,70	3,27	2,90	2,58	2,31
180	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	23,26	17,92	14,29	11,66	9,66	8,10	6,86	5,85	5,02	4,34	3,76	3,28	2,88	2,53	2,24	1,98	1,76	1,57	1,38
		q_{100}	46,53	35,85	28,59	23,32	19,32	16,21	13,72	11,70	10,05	8,68	7,53	6,57	5,76	5,07	4,48	3,97	3,53	3,16	2,83
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	23,26	17,92	14,29	11,66	9,66	8,10	6,86	5,85	5,02	4,34	3,76	3,28	2,88	2,53	2,24	1,98	1,76	1,57	1,38
		q_{100}	46,53	35,85	28,59	23,32	19,32	16,21	13,72	11,70	10,05	8,68	7,53	6,57	5,76	5,07	4,48	3,97	3,53	3,16	2,83
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	23,26	17,92	14,29	11,66	9,66	8,10	6,86	5,85	5,02	4,34	3,76	3,28	2,88	2,53	2,24	1,98	1,76	1,57	1,38
		q_{100}	46,53	35,85	28,59	23,32	19,32	16,21	13,72	11,70	10,05	8,68	7,53	6,57	5,76	5,07	4,48	3,97	3,53	3,16	2,83
200	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	26,05	20,14	16,12	13,21	10,99	9,26	7,87	6,75	5,82	5,04	4,40	3,85	3,38	2,99	2,65	2,35	2,10	1,88	1,69
		q_{100}	52,1	40,29	32,25	26,42	21,99	18,52	15,75	13,50	11,64	10,09	8,80	7,70	6,77	5,98	5,30	4,71	4,20	3,76	3,38
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	26,05	20,14	16,12	13,21	10,99	9,26	7,87	6,75	5,82	5,04	4,40	3,85	3,38	2,99	2,65	2,35	2,10	1,88	1,69
		q_{100}	52,1	40,29	32,25	26,42	21,99	18,52	15,75	13,5	11,64	10,09	8,80	7,70	6,77	5,98	5,30	4,71	4,20	3,76	3,38
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	26,05	20,14	16,12	13,21	10,99	9,26	7,87	6,75	5,82	5,04	4,40	3,85	3,38	2,99	2,65	2,35	2,10	1,88	1,69
		q_{100}	52,1	40,29	32,25	26,42	21,99	18,52	15,75	13,5	11,64	10,09	8,80	7,70	6,77	5,98	5,30	4,71	4,20	3,76	3,38
230	I	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	30,23	23,47	18,88	15,55	13,01	11,02	9,42	8,12	7,04	6,14	5,37	4,73	4,18	3,70	3,29	2,94	2,63	2,36	2,13
		q_{100}	60,47	46,95	37,77	31,10	26,03	22,05	18,85	16,24	14,08	12,28	10,75	9,46	8,36	7,41	6,59	5,89	5,27	4,73	4,26
	II	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	30,23	23,47	18,88	15,55	13,01	11,02	9,42	8,12	7,04	6,14	5,37	4,73	4,18	3,70	3,29	2,94	2,63	2,36	2,13
		q_{100}	60,47	46,95	37,77	31,10	26,03	22,05	18,85	16,24	14,08	12,28	10,75	9,46	8,36	7,41	6,59	5,89	5,27	4,73	4,26
	III	q_{dop}	2,38	1,90	1,58	1,36	1,19	1,05	0,95	0,86	0,79	0,73	0,68	0,63	0,59	0,56	0,52	0,50	0,47	0,45	0,43
		q_{200}	30,23	23,47	18,88	15,55	13,01	11,02	9,42	8,12	7,04	6,14	5,37	4,73	4,18	3,70	3,29	2,94	2,63	2,36	2,13
		q_{100}	60,47	46,95	37,77	31,10	26,03	22,05	18,85	16,24	14,08	12,28	10,75	9,46	8,36	7,41	6,59	5,89	5,27	4,73	4,26

Key:
qdop - maximum characteristic load in the bearing capacity limit
q200 - maximum characteristic load in the usability limit (diffraction condition L/200)
q100 - maximum characteristic load in the usability limit (diffraction condition L/100)

Colour groups: I - very light colours II - light colours III - dark colours

Linear support has been assumed. Panels mounted by loop through connectors with aluminium or steel washers. Support width: min. 40mm.

MWF mineral wool roofing panels. Multi- span arrangement- maximum characteristic loads for sandwich panels with mineral wool core, in claddings of 0,50 / 0,50 mm thickness Direction of force - TO THE SUPPORT.(10)

MWF mineral wool roofing panels.											
Core thickness	Colour group	Condition	Maximum loads [kN/m²] for the span L[m]								
			1,20	1,50	1,80	2,10	2,40	2,70	3,00	3,30	3,60
100/145	I	q_{dop}	2,53	2,03	1,70	1,46	0,37				
		q_{200}	38,00	25,53	18,55	14,14	11,11				
		A [pcs]	2	2	2	2	2				
		R_{Amin}[kN]	2,50	2,31	2,08	1,87	1,67				
		B [pcs]	2	2	2	2	2				
		R_{Bmin}[kN]	1,69	1,50	1,29	1,08	0,88				
	II	q_{dop}	1,53	1,47	1,48	1,46	0,37				
		q_{200}	38,00	25,53	18,55	14,14	11,11				
		A [pcs]	2	2	2	2	2				
		R_{Amin}[kN]	2,50	2,31	2,08	1,87	1,67				
		B [pcs]	2	2	2	2	2				
		R_{Bmin}[kN]	2,34	2,11	1,84	1,59	1,35				
120/165	I	q_{dop}	2,44	1,94	1,62	1,39	0,53				
		q_{200}	43,23	29,60	21,86	16,88	13,43				
		A [pcs]	2	2	2	2	2				
		R_{Amin}[kN]	2,76	2,59	2,37	2,15	1,93				
		B [pcs]	2	2	2	2	2				
		R_{Bmin}[kN]	1,86	1,69	1,47	1,25	1,04				
	II	q_{dop}	0,91	0,91	0,99	1,06	0,53				
		q_{200}	43,23	29,60	21,86	16,88	13,43				
		A [pcs]	2	2	2	2	2				
		R_{Amin}[kN]	2,76	2,59	2,37	2,15	1,93				
		B [pcs]	2	2	2	2	2				
		R_{Bmin}[kN]	2,58	2,37	2,11	1,84	1,58				
150/195	I	q_{dop}	2,53	1,97	1,61	1,36	1,18	1,03	0,66	0,10	
		q_{200}	38,08	26,09	19,44	15,23	12,33	10,21	8,59	7,31	
		A [pcs]	2	2	2	2	2	2	2	2	
		R_{Amin}[kN]	2,38	2,40	2,32	2,19	2,04	1,88	1,73	1,58	
		B [pcs]	2	2	2	2	2	2	2	2	
		R_{Bmin}[kN]	1,56	1,52	1,40	1,24	1,07	0,89	0,72	0,55	
	II	q_{dop}	1,62	1,13	0,95	0,89	0,87	0,86	0,66	0,10	
		q_{200}	38,08	26,09	19,44	15,23	12,33	10,21	8,59	7,31	
		A [pcs]	2	2	2	2	2	2	2	2	
		R_{Amin}[kN]	2,38	2,40	2,32	2,19	2,04	1,88	1,73	1,58	
		B [pcs]	2	2	2	2	2	2	2	2	
		R_{Bmin}[kN]	2,19	2,16	2,03	1,85	1,64	1,44	1,23	1,03	
160/205	I	q_{dop}	2,50	1,94	1,58	1,34	1,15	1,01	0,84	0,21	
		q_{200}	39,78	27,42	20,53	16,14	13,12	10,89	9,19	7,85	
		A [pcs]	2	2	2	2	2	2	2	2	
		R_{Amin}[kN]	2,44	2,47	2,40	2,28	2,13	1,97	1,82	1,67	
		B [pcs]	2	2	2	2	2	2	2	2	
		R_{Bmin}[kN]	1,59	1,56	1,45	1,30	1,12	0,94	0,76	0,59	
	II	q_{dop}	1,48	0,98	0,80	0,75	0,74	0,74	0,75	0,21	
		q_{200}	39,78	27,42	20,53	16,14	13,12	10,89	9,19	7,85	
		A [pcs]	2	2	2	2	2	2	2	2	
		R_{Amin}[kN]	2,44	2,47	2,40	2,28	2,13	1,97	1,82	1,67	
		B [pcs]	2	2	2	2	2	2	2	2	
		R_{Bmin}[kN]	2,23	2,22	2,10	1,92	1,72	1,51	1,30	1,09	

Key:

- qdop - maximum characteristic load in the bearing capacity limit
- q200 - maximum characteristic load in the usability limit (diffraction condition L/200)
- A - arithmetic product of factors per one support
- RAmin - reaction on one support, which must be carried by the factors
- B - arithmetic product of factors per one intermediate support
- RBmin - reaction on one intermediate support, which must be carried by the factors

Colour groups: I - very bright colours II - bright colours

Linear support has been assumed. Panels mounted by loop through connectors with aluminium or steel washers. Edge support width: min. 40mm. Intermediate support width min. 80mm.

MWF mineral wool roofing panels. Multi- span arrangement- maximum characteristic loads for sandwich panels with mineral wool core, in claddings of 0,50 / 0,50 mm thickness Direction of force - FROM THE SUPPORT(11)

MWF mineral wool roof panels.											
Core thickness	Colour group	Condition	Maximum loads [kN/m²] for the span L[m]								
			1,20	1,50	1,80	2,10	2,40	2,70	3,00	3,30	3,60
100/145	I	q_{dop}	-1,84	-1,53	-1,32	-1,18	-1,06				
		q_{200}	-38,40	-25,92	-18,95	-14,53	-11,50				
		A [pcs]	3	3	2	2	2				
		R_{Amin}[kN]	-3,34	-3,17	-2,97	-2,79	-2,61				
		B [pcs]	3	3	3	3	3				
		R_{Bmin}[kN]	-4,52	-4,53	-4,52	-4,54	-4,52				
	II	q_{dop}	-1,64	-1,38	-1,21	-1,09	-0,99				
		q_{200}	-38,40	-25,92	-18,95	-14,53	-11,50				
		A [pcs]	3	3	2	2	2				
		R_{Amin}[kN]	-3,25	-3,09	-2,90	-2,72	-2,55				
		B [pcs]	3	3	3	3	3				
		R_{Bmin}[kN]	-4,52	-4,53	-4,53	-4,54	-4,52				
120/165	I	q_{dop}	-1,80	-1,49	-1,29	-1,15	-1,05				
		q_{200}	-43,67	-30,04	-22,29	-17,32	-13,87				
		A [pcs]	3	3	3	3	2				
		R_{Amin}[kN]	-3,58	-3,43	-3,24	-3,05	-2,87				
		B [pcs]	3	3	3	3	3				
		R_{Bmin}[kN]	-4,52	-4,52	-4,52	-4,52	-4,55				
	II	q_{dop}	-1,58	-1,32	-1,16	-1,05	-0,96				
		q_{200}	-43,67	-30,04	-22,29	-17,32	-13,87				
		A [pcs]	3	3	3	2	2				
		R_{Amin}[kN]	-3,48	-3,34	-3,16	-2,97	-2,79				
		B [pcs]	3	3	3	3	3				
		R_{Bmin}[kN]	-4,53	-4,52	-4,52	-4,53	-4,52				
150/195	I	q_{dop}	-1,91	-1,55	-1,32	-1,17	-1,06	-0,97	-0,90	-0,84	
		q_{200}	-38,58	-26,59	-19,94	-15,73	-12,83	-10,71	-9,09	-7,82	
		A [pcs]	3	3	3	3	3	2	2	2	
		R_{Amin}[kN]	-3,26	-3,30	-3,23	-3,13	-3,01	-2,87	-2,75	-2,62	
		B [pcs]	3	3	3	3	3	3	3	3	
		R_{Bmin}[kN]	-4,53	-4,52	-4,51	-4,53	-4,55	-4,54	-4,55	-4,54	
	II	q_{dop}	-1,71	-1,39	-1,19	-1,06	-0,97	-0,89	-0,84	-0,79	
		q_{200}	-38,58	-26,59	-19,94	-15,73	-12,83	-10,71	-9,09	-7,82	
		A [pcs]	3	3	3	3	2	2	2	2	
		R_{Amin}[kN]	-3,17	-3,20	-3,14	-3,04	-2,93	-2,79	-2,68	-2,56	
		B [pcs]	3	3	3	3	3	3	3	3	
		R_{Bmin}[kN]	-4,52	-4,52	-4,51	-4,52	-4,54	-4,52	-4,56	-4,56	
160/205	I	q_{dop}	-1,90	-1,54	-1,32	-1,16	-1,05	-0,96	-0,90	-0,84	
		q_{200}	-40,30	-27,94	-21,05	-16,67	-13,64	-11,42	-9,72	-8,38	
		A [pcs]	3	3	3	3	3	2	2	2	
		R_{Amin}[kN]	-3,31	-3,36	-3,32	-3,21	-3,09	-2,96	-2,84	-2,71	
		B [pcs]	3	3	3	3	3	3	3	3	
		R_{Bmin}[kN]	-4,52	-4,52	-4,53	-4,51	-4,52	-4,51	-4,56	-4,55	
	II	q_{dop}	-1,70	-1,38	-1,18	-1,05	-0,96	-0,89	-0,83	-0,78	
		q_{200}	-40,30	-27,94	-21,05	-16,67	-13,64	-11,42	-9,72	-8,38	
		A [pcs]	3	3	3	3	3	2	2	2	
		R_{Amin}[kN]	-3,22	-3,27	-3,22	-3,13	-3,01	-2,89	-2,76	-2,64	
		B [pcs]	3	3	3	3	3	3	3	3	
		R_{Bmin}[kN]	-4,52	-4,52	-4,51	-4,52	-4,53	-4,55	-4,54	-4,53	

Key:

- qdop - maximum characteristic load in the bearing capacity limit
- q200 - maximum characteristic load in the usability limit (diffraction condition L/200)
- A - arithmetic product of factors per one support
- RAmin - reaction on one support, which must be carried by the factors
- B - arithmetic product of factors per one intermediate support
- RBmin - reaction on one intermediate support, which must be carried by the factors

Wall panels made of EPS polystyrene core. *Maximum load of very bright and light colored 0.50mm thick single strip EPS wall panels. Direction - load towards the support.*

thickness core	load as a result	Maximum load, kN / m2 in the range from [m]													
		2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,10	5,40	5,70	6,00
75	load capacity	3,19	2,44	1,93	1,56	1,29	1,09	0,92	0,8	0,69	0,61	-	-	-	-
	stiffness	1,66	1,34	1,1	0,91	0,75	0,63	0,53	0,44	0,37	0,32	-	-	-	-
100	load capacity	-	3,00	2,37	1,92	1,58	1,33	1,13	0,98	0,85	0,75	0,66	0,59	0,53	0,48
	stiffness	-	1,60	1,34	1,14	0,98	0,84	0,73	0,63	0,55	0,48	0,42	0,37	0,32	0,28
125	load capacity	-	3,76	2,97	2,41	1,99	1,67	1,42	1,23	1,07	0,94	0,83	0,74	0,67	0,60
	stiffness	-	2,12	1,81	1,55	1,34	1,17	1,02	0,90	0,79	0,70	0,62	0,55	0,49	0,44
150	load capacity	-	-	3,58	2,9	2,39	2,01	1,71	1,48	1,29	1,13	1,00	0,89	0,80	0,72
	stiffness	-	-	2,27	1,97	1,72	1,51	1,33	1,18	1,05	0,93	0,83	0,75	0,67	0,61
175	load capacity	-	-	-	3,39	2,80	2,35	2,00	1,73	1,50	1,32	1,17	1,04	0,94	0,85
	stiffness	-	-	-	2,39	2,09	1,85	1,64	1,46	1,31	1,17	1,06	0,95	0,86	0,78
200	load capacity	-	-	-	3,87	3,20	2,69	2,29	1,98	1,72	1,51	1,34	1,20	1,07	0,97
	stiffness	-	-	-	2,81	2,48	2,20	1,96	1,75	1,58	1,42	1,29	1,17	1,06	0,97

Wall panels made of EPS polystyrene core. *Maximum load of very bright and light colored multi-band EPS wall panels with a thickness of 0.50 mm. Direction - load towards the support.*

thickness core	load as a result	Maximum load, kN / m2 in the range from [m]													
		2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,10	5,40	5,70	6,00
75	load capacity	2,89	2,49	2,18	1,75	1,27	-	-	-	-	-	-	-	-	-
	stiffness	1,83	1,54	1,32	1,14	0,99	-	-	-	-	-	-	-	-	-
100	load capacity	-	3,49	3,06	2,72	2,21	1,62	1,22	-	-	-	-	-	-	-
	stiffness	-	1,71	1,47	1,28	1,13	1,01	0,90	-	-	-	-	-	-	-
125	load capacity	-	4,45	3,90	3,47	3,12	2,42	1,82	1,40	1,10	-	-	-	-	-
	stiffness	-	2,22	1,92	1,69	1,49	1,33	1,20	1,08	0,98	-	-	-	-	-
150	load capacity	-	-	4,75	4,22	3,80	3,39	2,53	1,94	1,51	1,21	-	-	-	-
	stiffness	-	-	2,38	2,09	1,86	1,66	1,50	1,36	1,24	1,13	-	-	-	-
175	load capacity	-	-	-	4,99	4,49	4,07	3,35	2,56	1,99	1,58	1,28	-	-	-
	tuhosť	-	-	-	2,51	2,23	2,00	1,81	1,64	1,50	1,38	1,27	-	-	-
200	load capacity	-	-	-	5,76	5,18	4,70	4,30	3,27	2,54	2,01	1,62	1,32	-	-
	stiffness	-	-	-	2,92	2,60	2,34	2,12	1,93	1,76	1,62	1,49	1,38	-	-

Wall panels made of EPS polystyrene core. *Maximum load of very bright and light colored 0.50mm thick single strip EPS wall panels. Direction - load away from the support.*

thickness core	load as a result	Maximum load, kN / m2 in the range from [m]													
		2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,10	5,40	5,70	6,00
75	load capacity	3,19	2,44	1,93	1,56	1,29	1,09	0,92	0,80	0,69	0,61	-	-	-	-
	stiffness 3	1,37	1,16	0,99	0,86	0,74	0,63	0,53	0,44	0,37	0,32	-	-	-	-
	stiffness 2	0,93	0,80	0,69	0,60	0,53	0,47	0,41	0,36	0,32	0,29	-	-	-	-
100	load capacity	-	3,00	2,37	1,92	1,58	1,33	1,13	0,98	0,85	0,75	0,66	0,59	0,53	0,48
	stiffness 3	-	1,33	1,16	1,02	0,91	0,80	0,72	0,63	0,55	0,48	0,42	0,37	0,32	0,28
	stiffness 2	-	0,90	0,80	0,71	0,64	0,57	0,52	0,47	0,42	0,38	0,35	0,32	0,29	0,26
125	load capacity	-	3,76	2,97	2,41	1,99	1,67	1,42	1,23	1,07	0,94	0,83	0,74	0,67	0,60
	stiffness 3	-	1,66	1,46	1,30	1,16	1,04	0,94	0,85	0,77	0,70	0,62	0,55	0,49	0,44
	stiffness 2	-	1,10	0,99	0,88	0,80	0,72	0,66	0,60	0,55	0,50	0,46	0,42	0,39	0,36
150	load capacity	-	-	2,58	2,90	2,39	2,01	1,71	1,48	1,29	1,16	1,00	0,89	0,80	0,72
	stiffness 3	-	-	2,07	1,81	1,60	1,42	1,26	1,13	1,02	0,91	0,82	0,74	0,67	0,61
	stiffness 2	-	-	1,50	1,36	1,23	1,12	1,03	0,94	0,87	0,80	0,74	0,68	0,63	0,59
175	load capacity	-	-	-	3,39	2,80	2,35	2,00	1,73	1,50	1,32	1,17	1,04	0,94	0,85
	stiffness 3	-	-	-	2,17	1,92	1,71	1,53	1,38	1,25	1,12	1,02	0,93	0,85	0,77
	stiffness 2	-	-	-	1,56	1,41	1,30	1,19	1,10	1,02	0,94	0,88	0,81	0,75	0,70
200	load capacity	-	-	-	3,87	3,20	2,69	2,29	1,98	1,72	1,51	1,34	1,20	1,07	0,97
	stiffness 3	-	-	-	2,52	2,24	2,01	1,81	1,63	1,48	1,34	1,23	1,12	1,02	0,94
	stiffness 2	-	-	-	1,74	1,60	1,47	1,35	1,25	1,16	1,08	1,01	0,94	0,94	0,82

stiffness (3) - permissible load due to not exceeding the bending of the panel fixed by means of 3 fastening elements in width

stiffness (2) - permissible load due to not exceeding the bending of the panel fixed by means of 2 fastening elements in width

The load on one joint should not exceed 0.82 kN.

Wall panels made of EPS polystyrene core. *Maximum load of very bright and light colored multi-band EPS wall panels with a thickness of 0.50 mm. Direction - load away from the support.*

thickness core	load as a result	Maximum load, kN / m2 in the range from [m]													
		2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,10	5,40	5,70	6,00
75	load capacity	2,89	2,49	2,18	1,75	1,27	-	-	-	-	-	-	-	-	-
	stiffness 3	1,48	1,25	1,08	0,93	0,81	-	-	-	-	-	-	-	-	-
	stiffness 2	1,11	0,93	0,80	0,69	0,59	-	-	-	-	-	-	-	-	-
100	load capacity	-	3,49	3,06	2,72	2,21	1,62	1,22	-	-	-	-	-	-	-
	stiffness 3	-	1,39	1,20	1,04	0,92	0,83	0,74	-	-	-	-	-	-	-
	stiffness 2	-	1,03	0,89	0,77	0,68	0,61	0,54	-	-	-	-	-	-	-
125	load capacity	-	4,45	3,90	3,47	3,12	2,42	1,82	1,40	1,10	-	-	-	-	-
	stiffness 3	-	1,80	1,56	1,37	1,21	1,08	0,98	0,88	0,80	-	-	-	-	-
	stiffness 2	-	1,35	1,16	1,02	0,90	0,80	0,72	0,65	0,59	-	-	-	-	-
150	load capacity	-	-	4,75	4,22	3,80	3,39	2,53	1,94	1,51	1,21	-	-	-	-
	stiffness 3	-	-	1,89	1,69	1,52	1,37	1,25	1,15	1,06	0,97	-	-	-	-
	stiffness 2	-	-	1,44	1,28	1,15	1,04	0,95	0,87	0,80	0,73	-	-	-	-
175	load capacity	-	-	-	4,99	4,49	4,07	3,35	2,56	1,99	1,58	1,28	-	-	-
	stiffness 3	-	-	-	1,99	1,79	1,62	1,48	1,36	1,25	1,16	1,08	-	-	-
	stiffness 2	-	-	-	1,52	1,36	1,23	1,13	1,03	0,95	0,88	0,82	-	-	-
200	load capacity	-	-	-	5,76	5,18	4,70	4,30	3,27	2,54	2,01	1,62	1,32	-	-
	stiffness 3	-	-	-	2,27	2,05	1,87	1,71	1,57	1,45	1,34	1,25	1,16	-	-
	stiffness 2	-	-	-	1,74	1,57	1,42	1,30	1,19	1,10	1,02	0,94	0,88	-	-

- *stiffness (3) - permissible load due to not exceeding the bending of the panel fixed by means of 3 fastening elements in width*
- *stiffness (2) - permissible load due to not exceeding the bending of the panel fixed by means of 2 fastening elements in width*
- *The load on one joint should not exceed 0.82 kN.*

Roof panels made of EPS polystyrene core. *Maximum load of very bright and light colored 0.50mm single strip EPS roof panels.*

thickness core	load as a result	Maximum load, kN / m2 in the range from [m]													
		2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,10	5,40	5,70	6,00
75	load capacity	2,01	1,76	1,56	1,41	1,28	1,17	1,08	1,01	0,94	0,84	-	-	-	-
	stiffness	1,91	1,52	1,23	1,00	0,82	0,68	0,57	0,47	0,39	0,33	-	-	-	-
100	load capacity	-	2,46	2,18	1,97	1,79	1,64	1,51	1,40	1,31	1,23	1,15	1,03	0,92	0,83
	stiffness	-	1,82	1,52	1,28	1,09	0,93	0,80	0,69	0,60	0,52	0,45	0,40	0,35	0,30
125	load capacity	-	3,16	2,81	2,52	2,30	2,10	1,94	1,80	1,68	1,58	1,49	1,40	1,26	1,13
	stiffness	-	2,41	2,04	1,74	1,50	1,30	1,14	1,00	0,88	0,77	0,68	0,61	0,54	0,48
150	load capacity	-	-	3,43	3,08	2,80	2,57	2,37	2,20	2,06	1,93	1,81	1,71	1,60	1,44
	stiffness	-	-	2,56	2,21	1,92	1,68	1,48	1,31	1,16	1,04	0,93	0,83	0,75	0,67
175	load capacity	-	-	-	3,64	3,31	3,03	2,80	2,60	2,43	2,28	2,14	2,02	1,92	1,75
	stiffness	-	-	-	2,68	2,34	2,07	1,83	1,63	1,46	1,31	1,18	1,06	0,96	0,87
200	load capacity	-	-	-	4,20	3,82	3,50	3,23	3,00	2,80	2,63	2,47	2,33	2,21	2,07
	stiffness	-	-	-	3,15	2,77	2,45	2,19	1,96	1,76	1,59	1,44	1,30	1,18	0,98

the load capacity per fastener should not exceed 0.75 kN.

Roof panels made of EPS polystyrene core. *Maximum load of very bright and light colored 0.50mm multi-band EPS roof panels.*

thickness core	load as a result	Maximum load, kN / m2 in the range from [m]												
		2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,10	5,40	5,70	6,00
75	load capacity	1,85	1,60	1,40	1,25	1,12	1,02	0,93	0,77	0,65	0,55	0,47	0,41	-	-
	stiffness	2,26	1,90	1,63	1,41	1,23	1,08	0,96	0,85	0,76	0,68	0,62	0,56	-	-
100	load capacity	-	2,29	2,01	1,79	1,61	1,46	1,34	1,23	1,14	0,91	0,77	0,66	0,57	0,50
	stiffness	-	2,04	1,76	1,54	1,36	1,22	1,09	0,98	0,89	0,81	0,74	0,68	0,62	0,57
125	load capacity	-	2,97	2,61	2,32	2,09	1,90	1,74	1,60	1,48	1,34	1,13	0,96	0,83	0,73
	stiffness	-	2,57	2,23	1,96	1,74	1,56	1,40	1,27	1,16	1,06	0,97	0,89	0,82	0,76
150	load capacity	-	-	3,21	2,86	2,58	2,34	2,14	1,97	1,83	1,70	1,54	1,30	1,12	0,97
	stiffness	-	-	2,70	2,38	2,12	1,90	1,72	1,56	1,42	1,31	1,20	1,11	1,03	0,95
175	load capacity	-	-	-	3,40	3,06	2,78	2,55	2,35	2,17	2,02	1,89	1,68	1,44	1,25
	stiffness	-	-	-	2,81	2,50	2,25	2,04	1,85	1,70	1,56	1,44	1,33	1,23	1,15
200	load capacity	-	-	-	3,95	3,56	3,23	2,93	2,72	2,52	2,35	2,20	2,06	1,79	1,55
	stiffness	-	-	-	3,23	2,89	2,60	2,36	2,15	1,97	1,81	1,67	1,55	1,44	1,34

the load capacity per fastener should not exceed 0.75 kN.

Tightness of the panels

Air permeability through panel joints and resistance to heavy rain were tested to determine the impermeability of the walls and roof.

Air permeability

The air permeability was checked in accordance with the standard PN-EN 12114: 2003. The test consisted in the exact determination of the volume of air leaking through the joint from one side to the other with different pressure on both sides of the barrier (-50 Pa / +50 Pa). The test showed absolute impermeability. In practice, this means that the wall and roof panels form airtight barriers through which heat is not lost and brings high energy efficiency.

However, ventilation of rooms from sandwich panels is very important. The absolute impermeability of the walls and roofs made of sandwich panels prevents the transfer of moisture from the interior to the exterior, and therefore it is very important to install a ventilation system in order not to create a very humid environment.

Resistance to heavy rain

The resistance against heavy rain was tested according to the standard PN-EN 12865: 2004. During the test, the panels were exposed to a total water pressure of 1200Pa. They are absolutely impermeable and can be classified in the highest impermeable category, class A.

Acoustic properties

According to the PN-EN 14509: 2013 standard, the acoustic properties of sandwich panels must be tested. The test is to determine the noise level on both sides of the barrier - on the side of the noise source and on the other side. The measurement is made in 16 bands, from 100 Hz to 3150 Hz, every 1/3 octave. Based on these 16 results, a complete insulation capacity profile is created. The resulting diagram is adjusted to a standard reference curve that reflects the sensitivity of the human ear in individual bands, so that both curves are matched to each other as much as possible. The value resulting from such a setting for a frequency of 500 Hz is:

Rw - correct coefficient of acoustic resistance

This coefficient represents a measure of the total insulating capacity in the entire range of the audible spectrum. However, this coefficient does not inform about the insulating properties of the barrier in specific ranges of the acoustic spectrum. In order to determine in detail the noise insulation properties, two additional indexes are set that correct the Rw coefficient to values suitable for the area of high and low frequencies:

- **C - low-frequency spectral adaptive index**
- **Ctr - high-frequency spectral adaptive index (operation)**

Additional indices of insulating capacity are determined using these parameters:

R_{A1} = Rw - C

The RA1 index determines the barrier properties in the range of low tones, for example, fast road traffic, rail traffic, airplanes flying in the vicinity, sounds of daily life, human speech, etc.

R_{A2} = Rw - Ctr

The RA2 index determines the barrier properties in the range of high tones, such as slow traffic, disco music, etc. Another parameter determining the acoustic properties of sandwich panels are:

- **reverberation acoustic absorption coefficient**
- **αw = absorbed / reflected energy**

Barriers with a higher coefficient αw reflect less energy back inside, which means they better dampen the echo (reflection). The reverberation is amplified in rooms with barriers with a lower αw coefficient.

(Table of acoustic properties)

			Rw	C	Ctr	RA1	RA2	αw
			dB	dB	dB	dB	dB	
PIR polyisocyanurate	**Wall (visible joint)**	40	27	-3	-5	24	22	0,15
		60	25	-2	-5	23	20	
		80	25	-2	-5	23	20	
		100	25	-2	-5	23	20	
		120	25	-2	-5	23	20	
		140	25	-2	-5	23	20	
		160	25	-2	-5	23	20	
		180	25	-2	-5	23	20	
		200	25	-2	-5	23	20	
	Facades (hidden joint)	60	26	-1	-4	25	22	
		80	27	-4	-6	23	21	
		100	27	-4	-6	23	21	
		120	27	-4	-6	23	21	
	Freezer	120	25	-2	-5	23	20	
		140	25	-2	-5	23	20	
		160	25	-2	-5	23	20	
		180	25	-2	-5	23	20	
		200	25	-2	-5	23	20	
		220	27	-3	-5	24	22	
	Roof	60	26	-2	-5	24	21	
		80	26	-2	-5	24	21	
		100	26	-2	-5	24	21	
		120	26	-2	-5	24	21	
		140	26	-2	-5	24	21	
		160	26	-2	-5	24	21	
EPS polystyrene core	**Wall (visible joint)**	40	23(24)*	-2	-4	21 (22)	18 (19)	-
		50	23(24)*	-2	-4	21 (22)	18 (19)	
		60	23(24)*	-2	-4	21 (22)	18 (19)	
		75	23(24)*	-2	-4	21 (22)	18 (19)	
		80	23(24)*	-2	-4	21 (22)	18 (19)	
		100	23(24)*	-2	-4	21 (22)	18 (19)	
		120	23(24)*	-2	-4	21 (22)	18 (19)	
		125	23(24)*	-2	-4	21 (22)	18 (19)	
		140	23(24)*	-2	-4	21 (22)	18 (19)	
		150	23(24)*	-2	-4	21 (22)	18 (19)	
		160	23(24)*	-2	-4	21 (22)	18 (19)	
		175	23(24)*	-2	-4	21 (22)	18 (19)	

		180	23(24)*	-2	-4	21 (22)	18 (19)	
		200	23(24)*	-2	-4	21 (22)	18 (19)	
		250	23(24)*	-2	-4	21 (22)	18 (19)	
	Roof	60	23(24)*	-2	-4	21 (22)	18 (19)	
		75	23(24)*	-2	-4	21 (22)	18 (19)	
		80	23(24)*	-2	-4	21 (22)	18 (19)	
		100	23(24)*	-2	-4	21 (22)	18 (19)	
		120	23(24)*	-2	-4	21 (22)	18 (19)	
		125	23(24)*	-2	-4	21 (22)	18 (19)	
		140	23(24)*	-2	-4	21 (22)	18 (19)	
		150	23(24)*	-2	-4	21 (22)	18 (19)	
		160	23(24)*	-2	-4	21 (22)	18 (19)	
		175	23(24)*	-2	-4	21 (22)	18 (19)	
		200	23(24)*	-2	-4	21 (22)	18 (19)	
		250	23(24)*	-2	-4	21 (22)	18 (19)	
MWF mineral wool	**Wall (visible joint)**	40	31	-1	-3	30	28	0,15
		50	31	-1	-3	30	28	
		60	31	-1	-3	30	28	
		75	31	-1	-3	30	28	
		80	31	-1	-3	30	28	
		100	31	-1	-3	30	28	
		120	31	-1	-3	30	28	
		140	31	-1	-3	30	28	
		150	31	-1	-3	30	28	
		160	31	-1	-3	30	28	
		175	31	-1	-3	30	28	
		200	31	-1	-3	30	28	
		230	31	-1	-3	30	28	
		250	31	-1	-3	30	28	
	Roof	60	32	-1	-4	31	28	
		75	32	-1	-4	31	28	
		80	32	-1	-4	31	28	
		100	32	-1	-4	31	28	
		120	32	-1	-4	31	28	
		125	32	-1	-4	31	28	
		140	32	-1	-4	31	28	
		150	32	-1	-4	31	28	
		160	32	-1	-4	31	28	
		175	32	-1	-4	31	28	
		200	32	-1	-4	31	28	
		230	32	-1	-4	31	28	
		250	32	-1	-4	31	28	
		** pre oplechovanie 0,4 / 0,5 mm a pre 0,5 / 0,5 mm)*						

Dimensions, tolerances and consequences

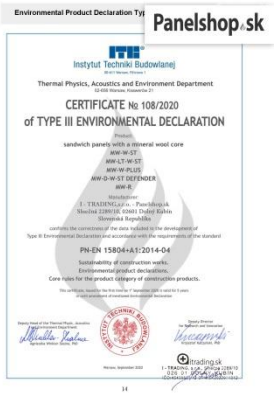
Variations in dimensions and physical properties can affect the behavior of the panels during their use. Therefore, it is necessary that they are adequate so that the quality of the products delivered to the customer remains unchanged.

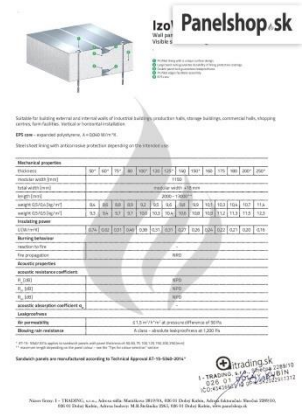
(Table of dimensional tolerances for sandwich panels)

Dimensional tolerances for sandwich panels	
Size	Tolerance (permissible maximum)
The thickness of the sandwich panel	D ≤ 100 mm, ± 2mm
	D > 100 mm, ± 2%
Deviation from flatness (measured at L length)	For L = 200mm, deviation from flatness 0.6mm
	For L = 400mm, deviation from flatness 1.0mm
	For L > 700 mm, deviation from flatness 1.0 mm
Height of metal profile (rib)	5 < h ≤ 50mm, ± 1mm
	50 < h ≤ 100mm, ± 2,5mm
Cross-section reinforcement height	d_s ≤ 1 mm, ± 30% d_s
	1 mm < d_s ≤ 3 mm, ± 0,3mm
	3 mm < d_s ≤ 5 mm, ± 10% d_s
The length of the sandwich panel	L ≤ 3m, ± 5mm
The width of the sandwich panel	W, ± 2mm
Deviation from squareness	s ≤ 0.6% × w (nominal cover width)
Deviation from a straight line in rows (across the length) in the longitudinal direction	1 mm per one meter of length, max. 5 mm
Deformation	2 mm per one meter of length, max. 20 mm
	8.5 mm per one meter of width for flat profiles or profile -h ≤ 10 mm
	10 mm per one meter of profile width - h> 10 mm
Cross-sectional pitch (p)	For h ≤ 50mm, p: ± 2mm
	For h > 50mm, p: ± 3mm
Rib width (b_1) and cavity wavelength (b_2)	For b_1, ± 1 mm
	For b_2, ± 2 mm

All certificates

- **Hygienic certificates** for sandwich panels made of polyisokynurate/polyurethane PIR/PUR, mineral wool (MWF) and polystyrene core (EPS).
- **Hygienic certificates** for PIR insulation panels (boards).
- **Declarations of performance** and parameters for polyisokynurate/polyurethane PIR/PUR, mineral wool (MWF) and polystyrene core (EPS) sandwich panels.
- **Statements on performance properties and parameters** for PIR insulation panels.
- **Environmental statement** on products.

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Sendvičové panely s izolačným jadrom PIR
Enviromentálne prehlásenie o produkte
V súlade s normou EN 15804 a ISO 14025
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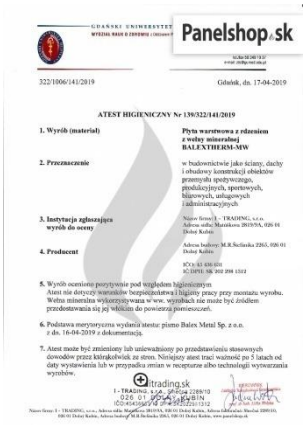
Platné do 29.5.2026
EPD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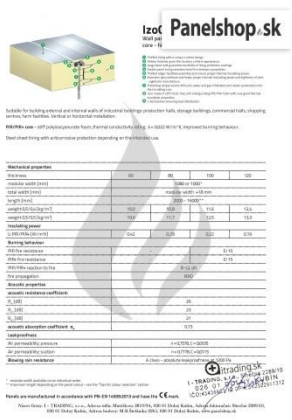
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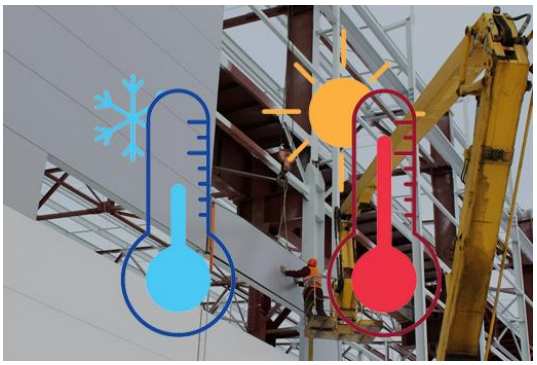
How they are assembled sandwich panels

Assembly tips and technical drawings of assembly details

We have summarized in points the most important assembly tips during construction. We drew on twenty European technical catalogs, which are enriched by our own experience. Technical drawings can be found in the next section.

1. We recommend entrusting the processing of project documentation and assembly to an experienced construction company with the necessary equipment.

2. Everything to check the whole construction, safety of workers, project documentation, structural plans, verticality, horizontality, preparation of tools and techniques and sandwich panels.

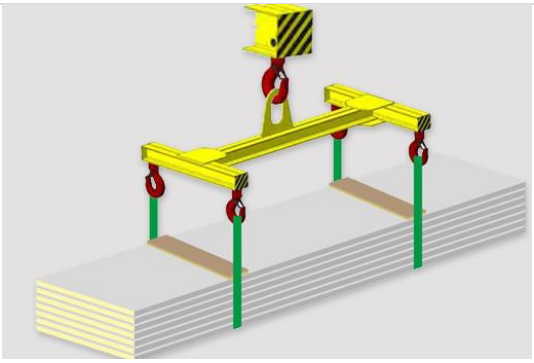
3. It is best to perform the installation when it is not raining, snowing or blowing, when there is no dense fog and in the evening only with good lighting.	
4. Assembly work, taking into account the specifics of a specific project, is carried out at temperatures from approximately -10 °C to +40 °C.	
5. For wall panels, at least a base bar, sealing tape and sheeting elements are installed at the plinth (see technical drawings).	

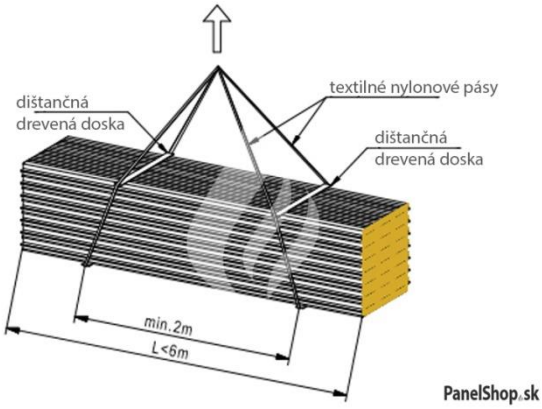
6. TEX galvanized self-tapping screws with EPDM backing are used to fasten wall and roof panels to steel, wood or concrete. Stainless steel screws are used in a more aggressive environment.

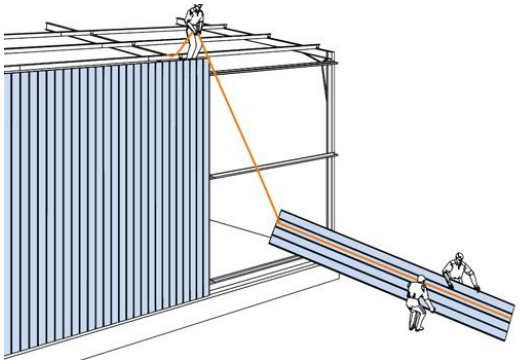
When fixing the TEX self-tapping screws, make sure that the rubber EPDM pad only slightly expands.

7. Calots are an important part of high-quality fixing of roof panels.

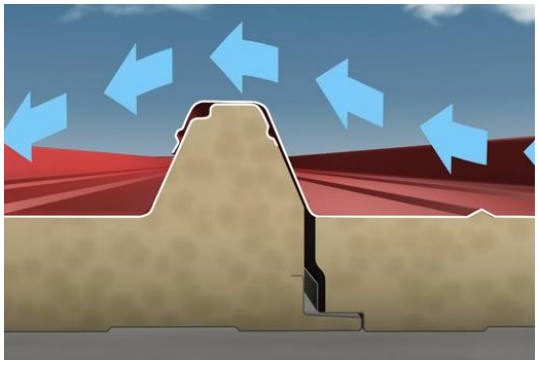
8. The panels can be moved either by means of a vacuum lifter (recommended), by means of a mechanical gripping device (lifting clamps) and a crane, or manually by means of clamping belts.



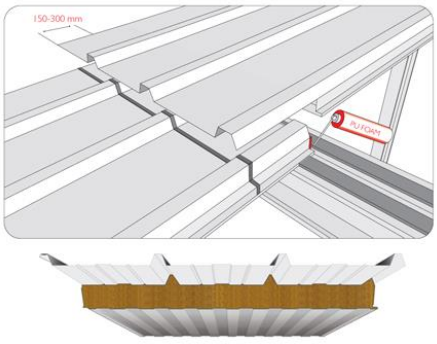




9. The installation direction should be opposite to the prevailing wind direction for both roof and wall panels.



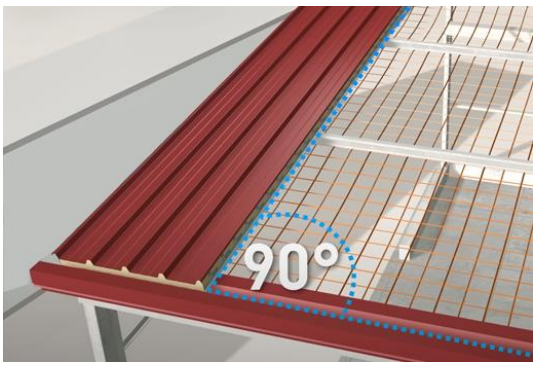
10. In the case of roof panels, a situation may arise when there are more rows and the panels are connected by a longitudinal overlap, which is created by undercutting from 150 to 300 mm, depending on the roof slope. (you can request undercutting when ordering)



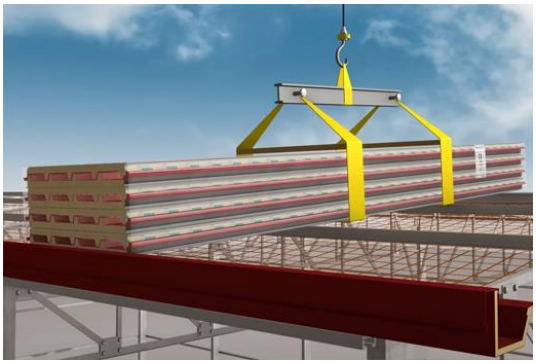
11. Before fixing, put down the protective transparent film. The foil must be removed within 3 months, because the paint and the top of the sheet will be damaged.

12. We recommend sticking sealing tapes over the entire structure and at the sheeting elements.

13. The horizontal and vertical attachment of the wall panels must be perpendicular to the structure and aligned according to the spirit level. We align the roof panels at 90° also to the structure.



14. In the case of roof panels, it is recommended to use a crane to move the entire package to the roof of the building with subsequent fixing. Of course, this also applies to wall-mounted ones, so that the package is as close as possible to the installation.



15. The panels fit together easily because they use a tongue-and-groove system on both types of panels.

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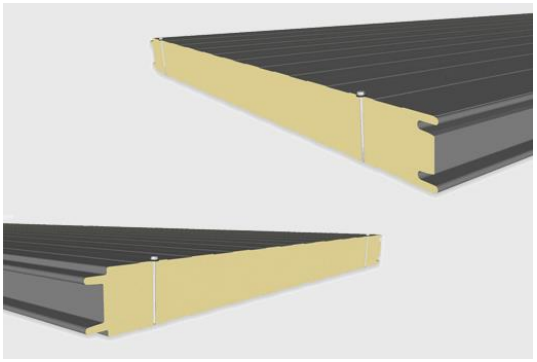
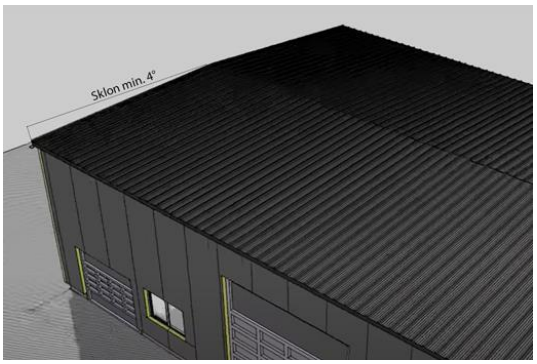
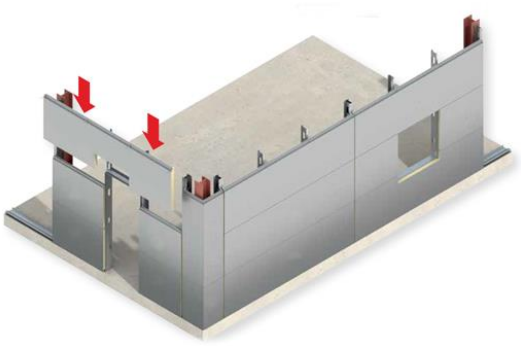


16. The minimum slope for roof panels is 4%, and when they are connected in several rows, it is 7%.



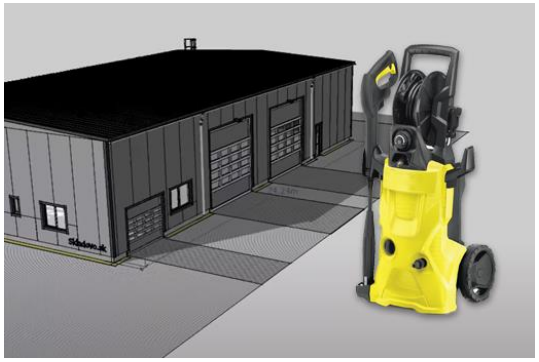
17. In general, it is easier to cut holes in the panels before installation, but they can also be cut afterwards.



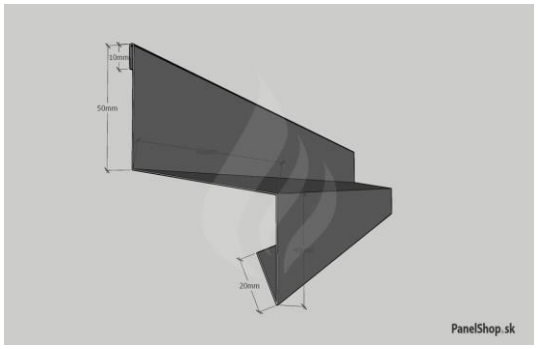
18. Circular saws or straight line saws are used to cut the panels and not carbon grinders (flexes), which will damage the surface of the panel. We recommend placing the panels on stands (goats) before cutting.

19. We recommend checking the facade, roof panels, cladding elements and gutter system once a year.

After the inspection, any damage must be removed and all panels washed with a low-pressure device with a non-aggressive cleaning agent and a sponge.



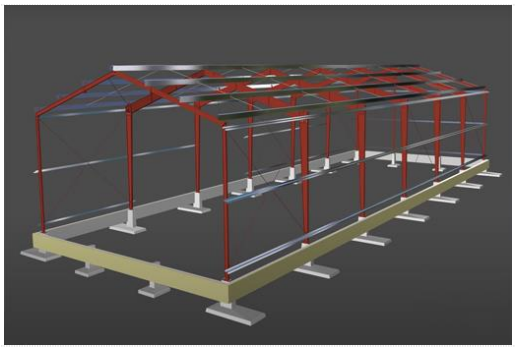
19. According to the plans and procedure, we install important functional, protective and aesthetic cladding elements together with sealing tapes. (where and what cladding elements to use can be found in the next section.)



20. The sandwich panel system can be mounted on all types of structures such as wood, concrete or steel. A steel frame is most often used.

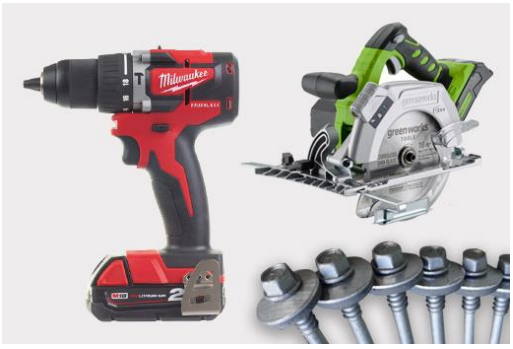
21. Horizontal laying of panels is recommended for several reasons, namely: better mechanical and load conditions, cheaper construction, lighter construction, no intermediate beams, simple installation, easier transport and handling due to the shorter length of the panels.

22. Structural profiles, such as thin-walled cages, are intended for use primarily as cages for ceilings, roofs and walls of steel halls. Thin-walled profiles are available as standardized Z and C profiles or as special profiles.



They enable precise and quick assembly. These profiles are used as prisons and wings for all types of halls.

23. During construction, you will need a cordless screwdriver, a circular saw, a straight saw, a spirit level, a protractor, pur foam, sealing compound, a leveling device, sealing tapes, a tape measure, clamping bands, calottes, nailing tools, screws, a marker, a rubber hammer, goats (stands) , and other tools according to the specific needs of the building.



24. Surveys show that falls from a height are the most common cause of injuries in industry and construction, so pay attention to safety and professional competence when completing the work.

25. Of course, they are also part of the construction sheeting elements, gutter system, snow barriers, ventilation elements, roof ladders, lightning rods, filter systems, engineering networks, skylights, gates, doors, windows, shelters, interior installations, exterior landscaping and more according to the requirements of the work.

Technical drawings and assembly visualizations

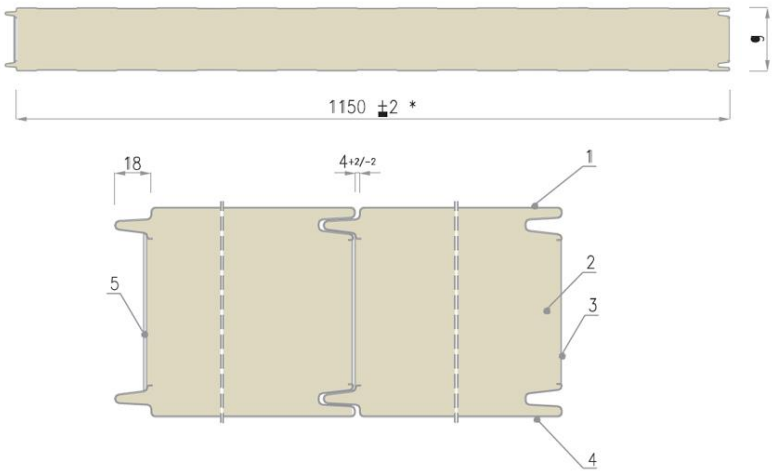
drawings of the main solutions to situations

All technical drawings and situations can be found in a separate catalog here (under preparation) »

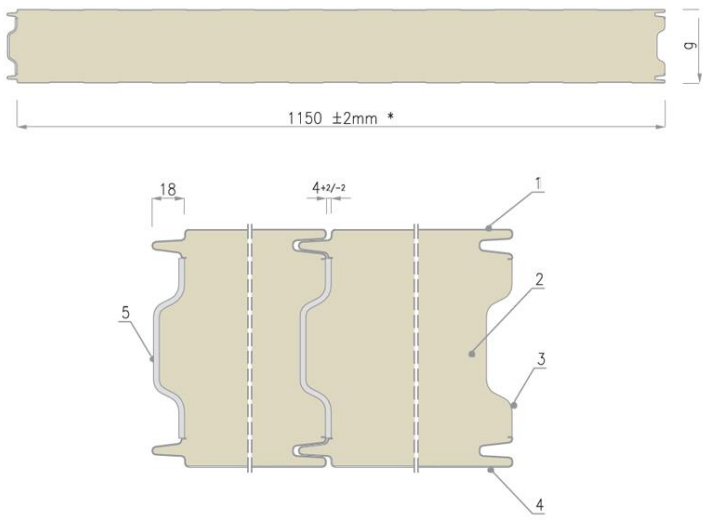
1. Wall sandwich panel with visible joint

Polyurethane / polyisocyanurate foam core

Variant 1



Variant 2

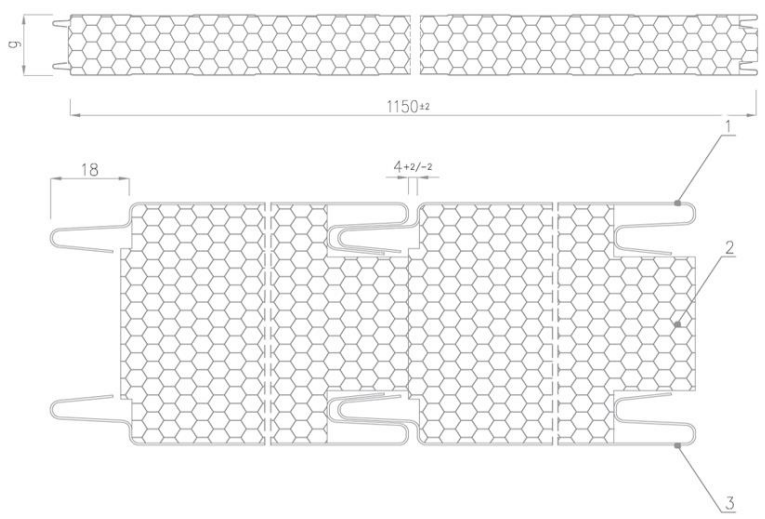


1. Steel sheet, external, standard thickness 0.50 - 0.60 mm
2. Polyurethane / polyisocyanurate foam core.
3. Protective strip preventing water diffusion and infiltration.
4. Steel sheet, internal, standard thickness 0.40 - 0.50 mm.
5. Factory-applied soft seal on the side edge from the side of the male lock.

**we offer different modular panel widths*

2. Wall sandwich panel with visible joint

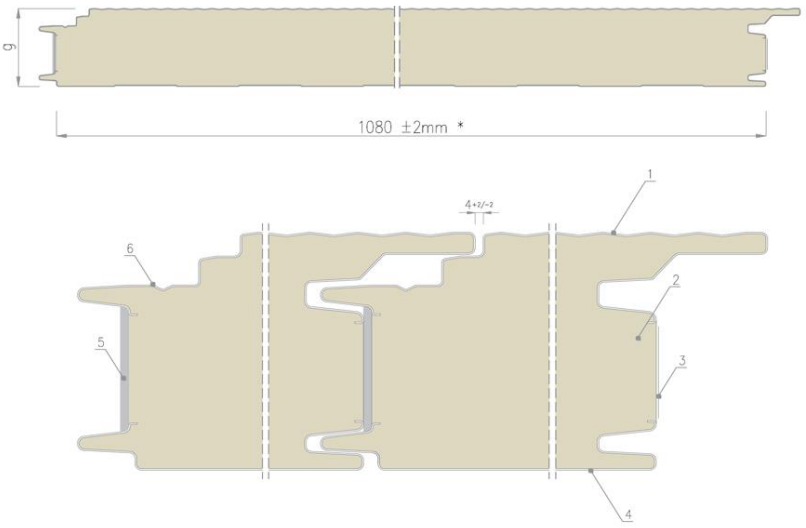
Mineral wool core (MV) or expanded polystyrene (EPS)



1. Steel sheet, external, standard thickness 0.40 - 0.50 mm (EPS), 0.50 - 0.60 (MV).
2. Core of mineral wool (MV) or expanded polystyrene (EPS).
3. Steel sheet, internal, standard thickness 0.40 - 0.50 mm.

3. Wall sandwich panel with hidden joint

Polyurethane/polyisocyanurate foam core

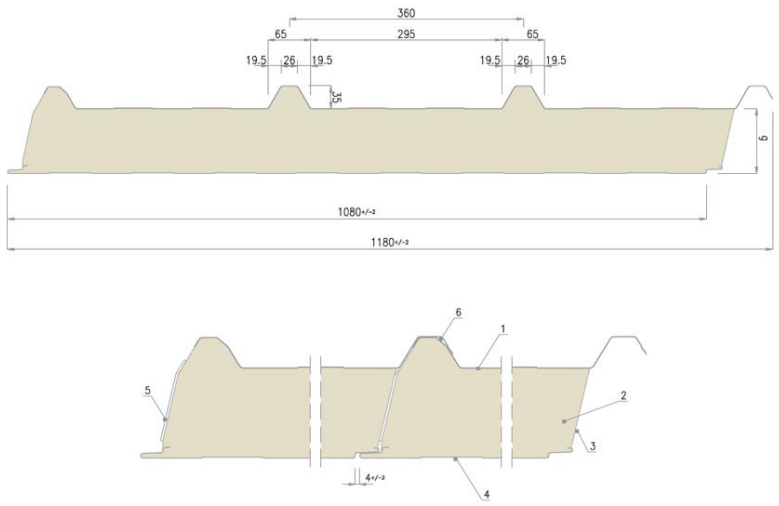


1. Steel sheet, external, standard thickness 0.50 - 0.60 mm.
2. Polyurethane / polyisocyanurate foam core.
3. Protective strip preventing water diffusion and infiltration
4. Steel sheet, internal, standard thickness 0.40 - 0.50 mm.
5. Polyurethane gasket
6. Slot for fixing screw

** 1080 mm - standard modular panel width*
1000 mm - modular width on request

4. Roof sandwich panel

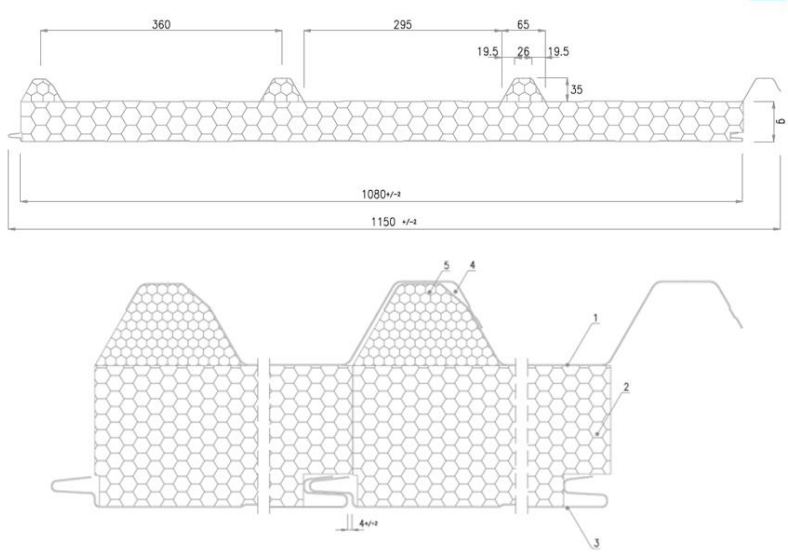
Polyisocyanurate foam core



1. Steel sheet, external, standard thickness 0.50 - 0.60 mm.
2. Polyurethane / polyisocyanurate foam core.
3. Protective strip preventing water diffusion and infiltration.
4. Steel sheet, internal, standard thickness 0.40 - 0.50 mm.
5. Polyurethane gasket.
6. Capillary chamber.

5. Roof sandwich panel

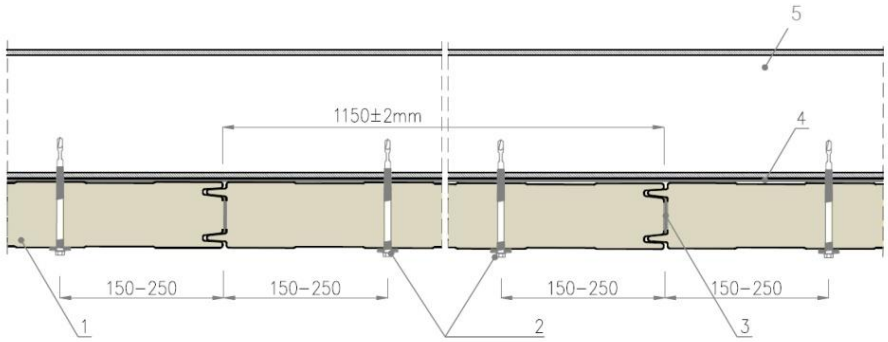
Mineral wool core (MV) or expanded polystyrene (EPS)



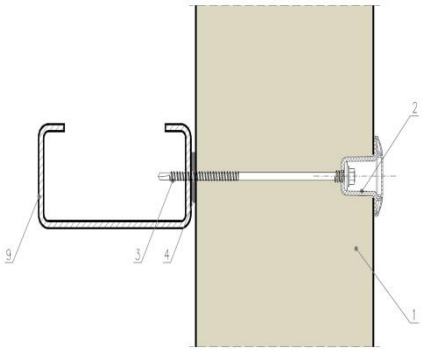
1. Steel sheet, external, standard thickness 0.40 - 0.50 mm (EPS), 0.50 - 0.60 (MV).
2. Core of mineral wool (MV) or expanded polystyrene (EPS).
3. Steel sheet, internal, standard thickness 0.40 - 0.50 mm.
4. Capillary chamber.
5. Trapezoidal filling - EPS expanded polystyrene or mineral wave

6. Wall panel with visible joint - fastening to the structure

Vertical layout

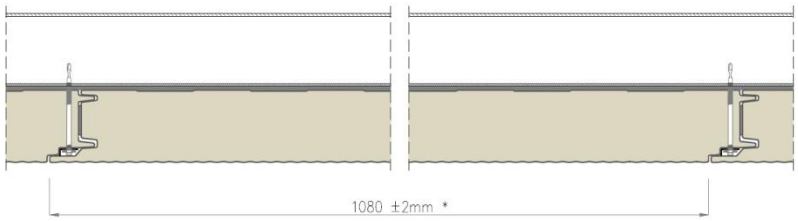


1. Wall panel
2. Self-tapping screw with EPDM washer
3. Polyurethane gasket.
4. Self-adhesive PES sealing tape
5. Steel profile, according to the design of the structure



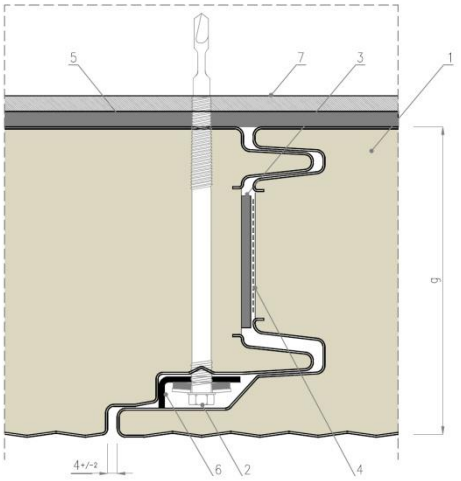
7. Wall panel with hidden joint - fastening to the structure

Vertical layout



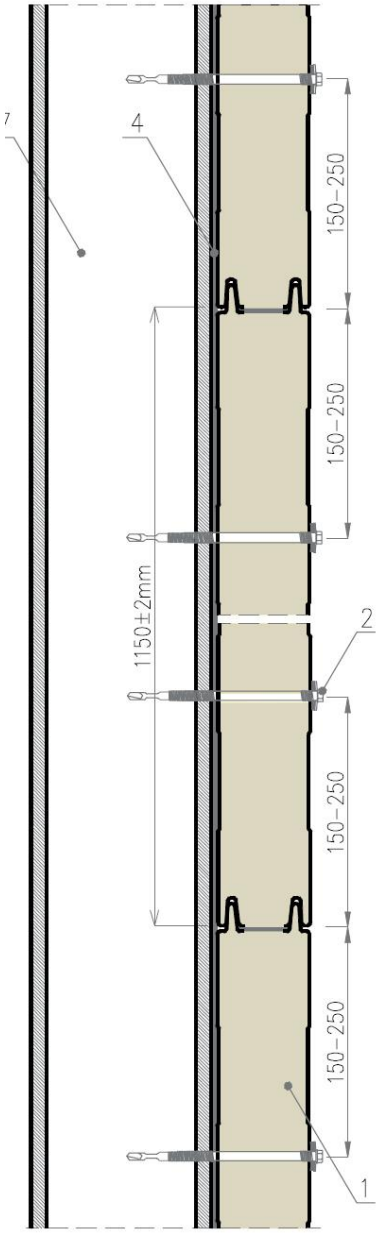
1. Wall panel with hidden joint
2. Self-tapping screw with EPDM washer
3. Polyurethane gasket.
4. Self-adhesive PES sealing tape
5. Fastening L-02
6. Steel profile, according to the design of the structure

**we offer different modular panel widths*



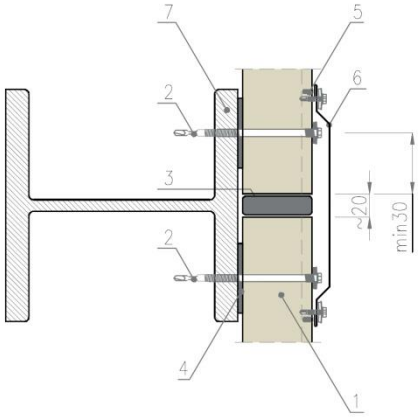
8. Wall panel with visible joint - fastening to the structure

Horizontal layout (for PUR, PIR, MV, EPS)

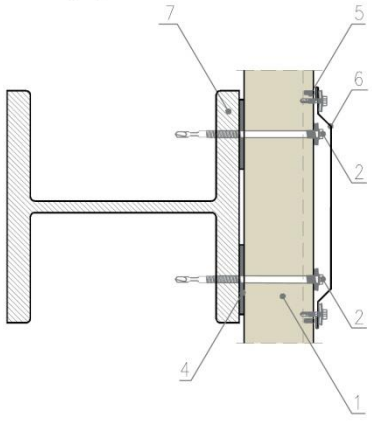


1. Wall panel with visible joint
2. Self-tapping screw with EPDM washer
3. Polyurethane foam as a filling of movement joint ~20 mm
4. Self-adhesive PES sealing tape
5. Putty, permanently plastic
6. Flashing element
7. Steel profile, according to the design of the structure

Panelový spoj

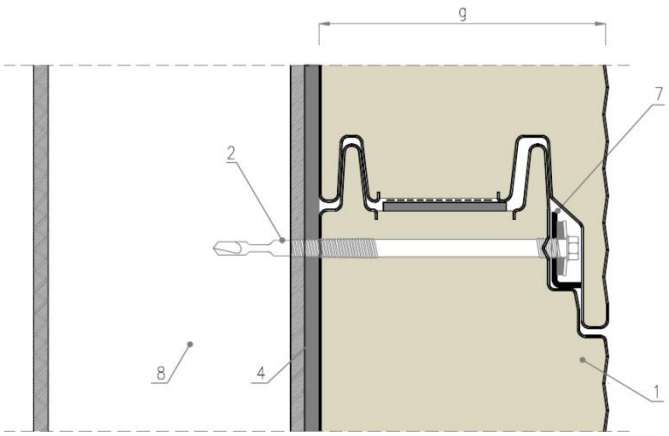


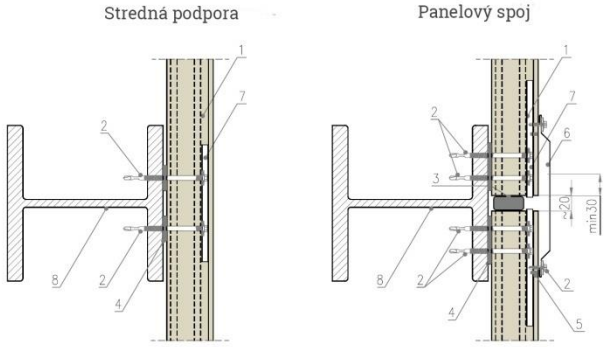
Stredná podpora



9. Wall panel with hidden joint - fastening to the structure

Horizontal layout

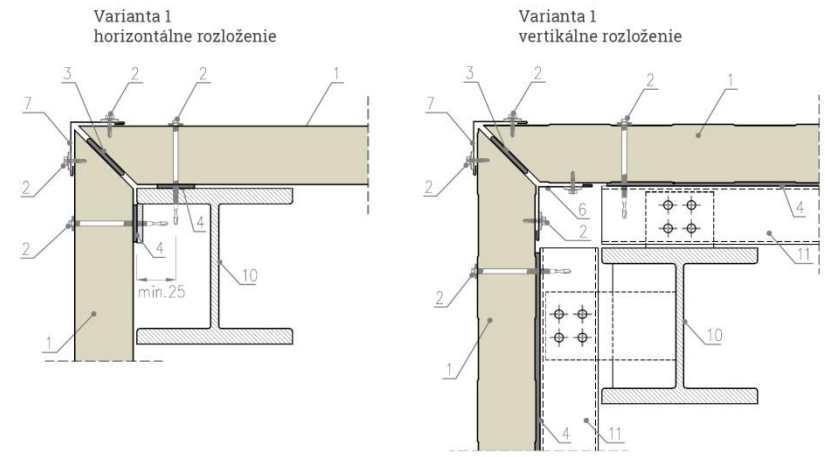




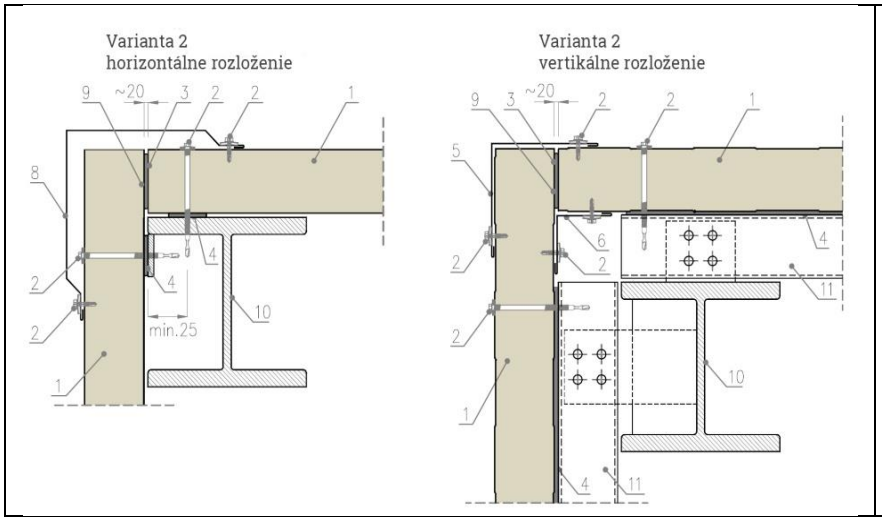
1. Wall panel with hidden joint
2. Self-tapping screw with EPDM washer (optionally two fasteners next to each other)
3. Polyurethane foam as a filling of movement joint ~20 mm
4. Self-adhesive PES sealing tape
5. Putty, permanently plastic
6. Flashing element
7. Fastening L-02
8. Steel profile, according to the design of the structure

10. Corner joint - fastening to the structure

Wall with visible and hidden connection

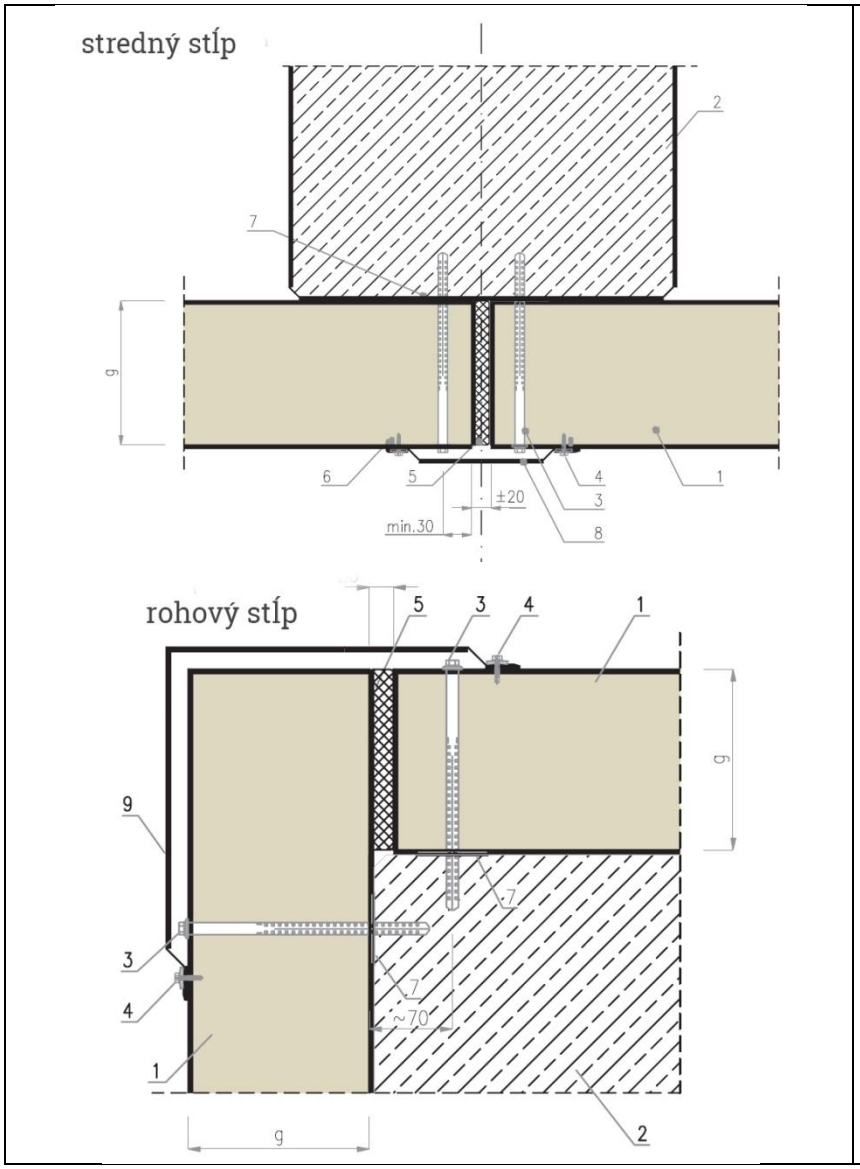


1. Wall panel with visible and hidden joint (PIR, MV, EPS)
2. Self-tapping screw with EPDM washer (optionally two fasteners next to each other)
3. Polyurethane foam
4. Self-adhesive PES sealing tape
5th, 6th, 7th, 8th. Plating element
9. The cladding is locally cut for better thermal requirements
10. Steel column according to the design of the structure
11. Steel prison according to the design of the structure



11. Fastening the panels to the reinforced concrete column

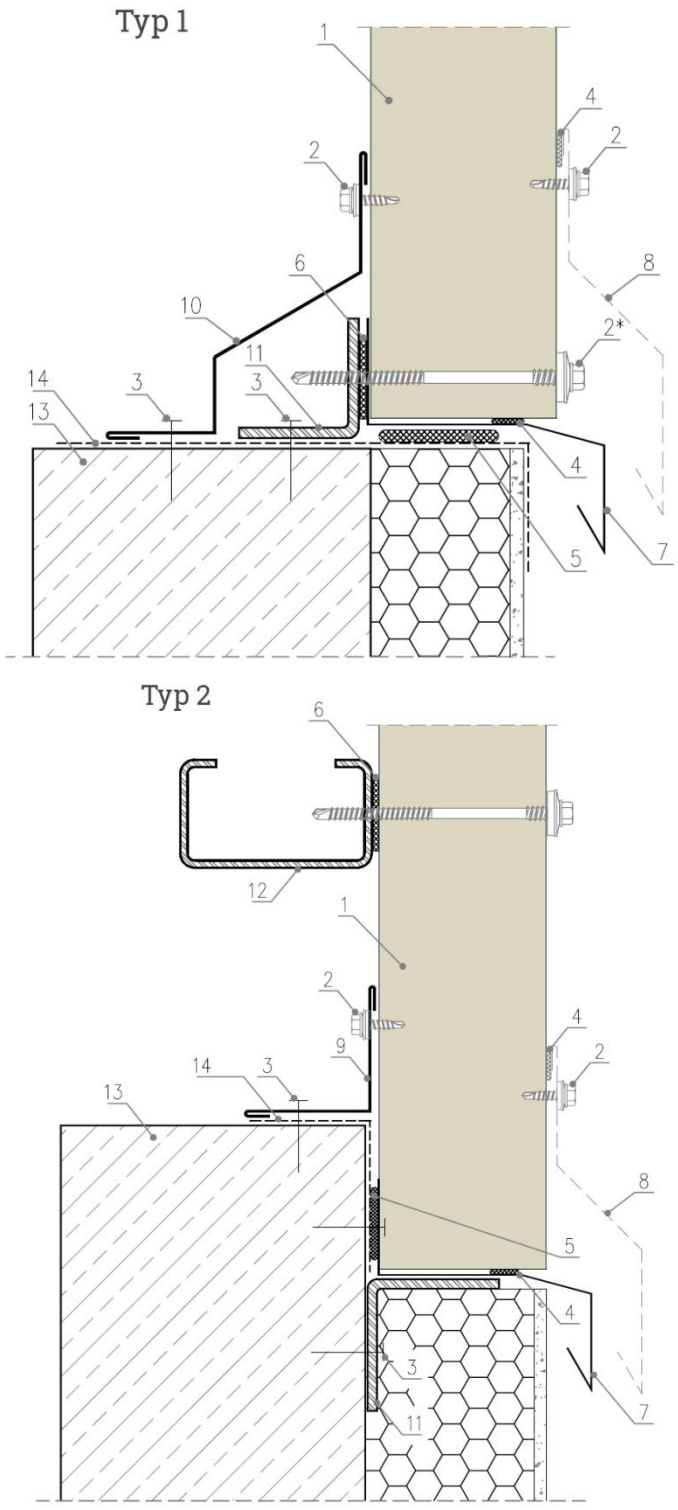
Wall panel, horizontal fixing



1. Wall panel, horizontal fixing
2. Reinforced concrete column
3. Screw with washer for fixing in reinforced concrete
4. Self-tapping screw with EPDM washer
5. Polyurethane foam as joint filler
6. Putty, permanently plastic
7. Self-adhesive sealing tape PES
8.,9. Flashing element

12. Fastening to the lower beam

Vertical fastening

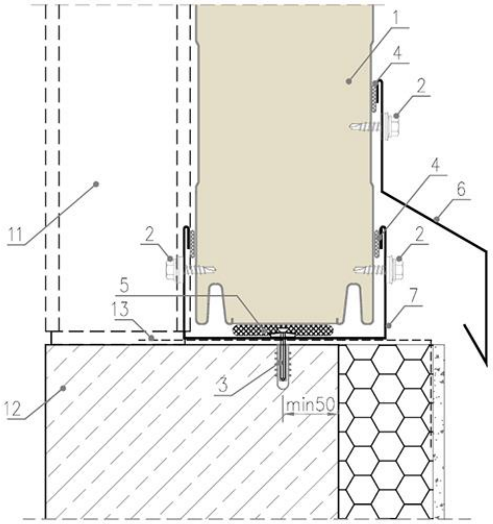


1. Wall panel
2. Self-tapping screw with EPDM washer
3. Push-in dowel
4. Putty, permanently plastic
5. Polyurethane foam
6. PES polyethylene tape
7th, 8th, 9th, 10th. Flashing element
11. Steel profile L-profile, acc construction design
12. Steel profile - wall beam
13. Ground beam
14. Waterproof seal

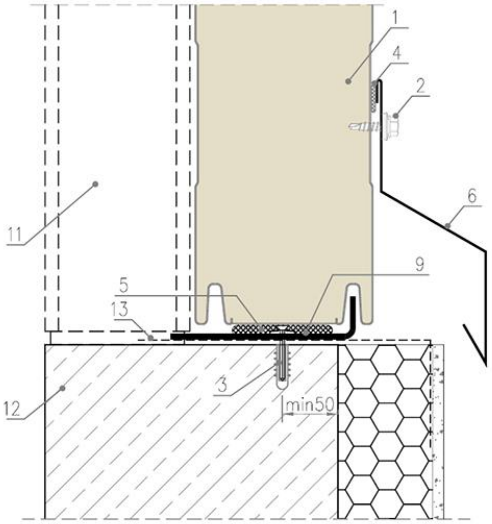
13. Fastening to the lower beam

Horizontal fixing

Typ 1

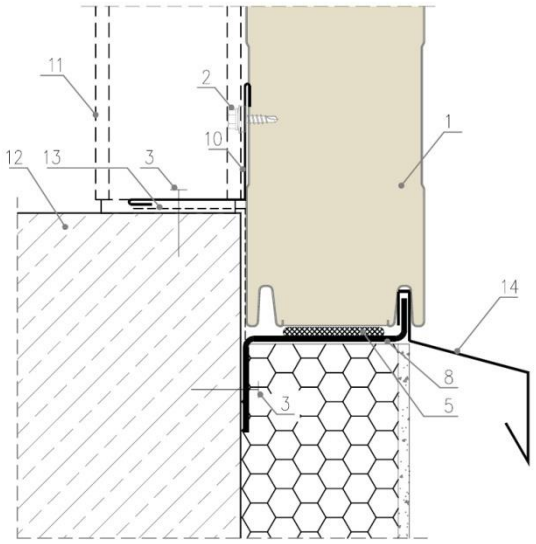


Typ 2



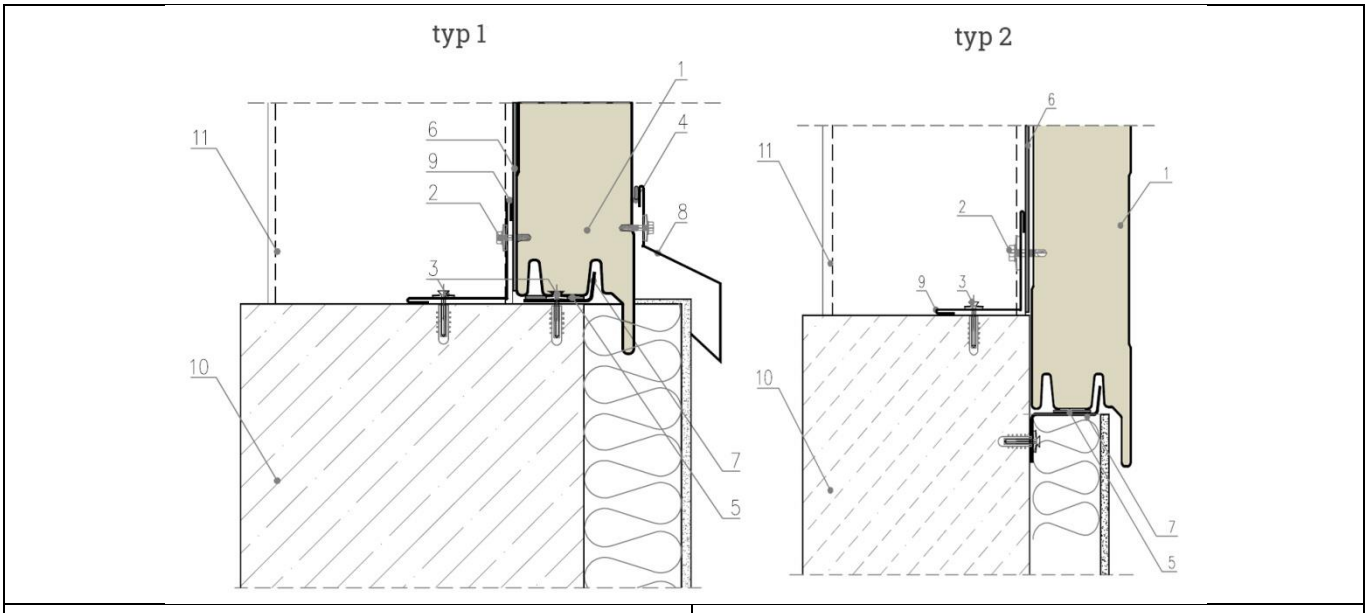
1. Wall panel
2. Self-tapping screw with EPDM washer
3. Push-in dowel
4. Putty, permanently plastic
5. PES polyethylene tape
6., 7., 8., 9., 10. Flashing element
11. Steel column (+ PES tape)
12. Ground beam
13. Waterproof seal **14**. Flashing element

Typ 3



14. Fastening to the lower beam

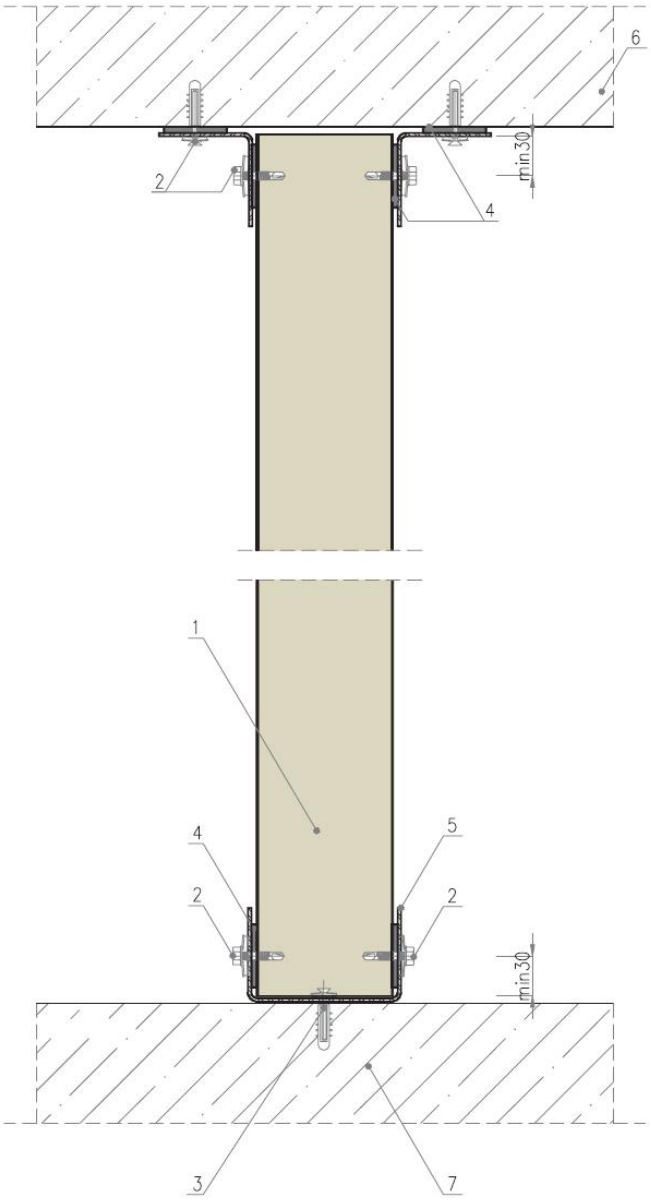
Wall panel with hidden joint, Horizontal fixing



1. Wall panel with hidden joint **2.** Self-tapping screw with EPDM washer **3.** Push-in dowel **4.** Putty, permanently plastic **5.** PES polyethylene tape **6.** PES polyethylene tape **7th, 8th, 9th**. Flashing element	**10.** Ground beam **11.** Steel profile, according to the design of the structure

15. Dividing wall

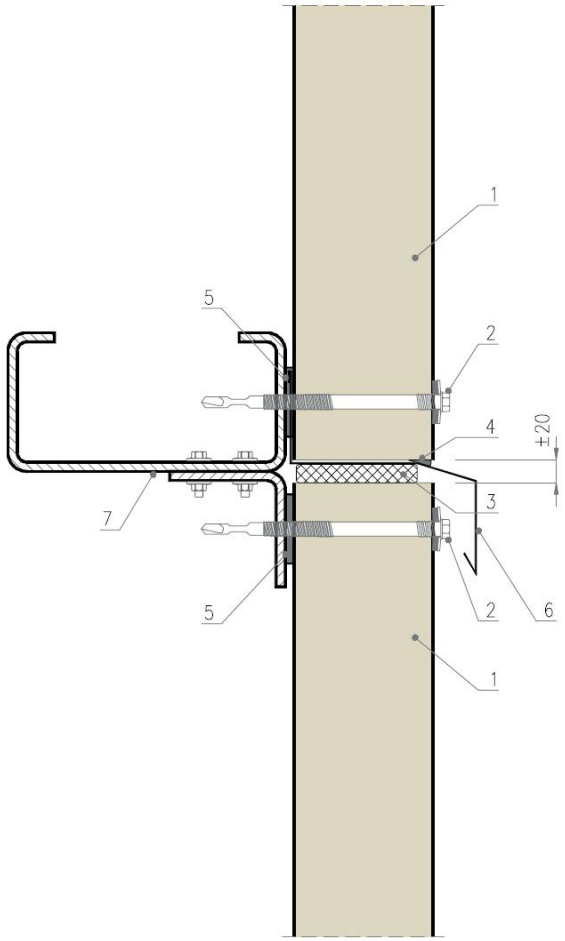
Wall panel with visible and hidden joint



1. Wall panel
2. Self-tapping screw with EPDM washer
3. Push-in dowel
4. PES polyethylene tape
5. U-beam, cold bent
6. Ceiling
7. Concrete foundation

16. Connecting panels along the length

Vertical joining, tall objects

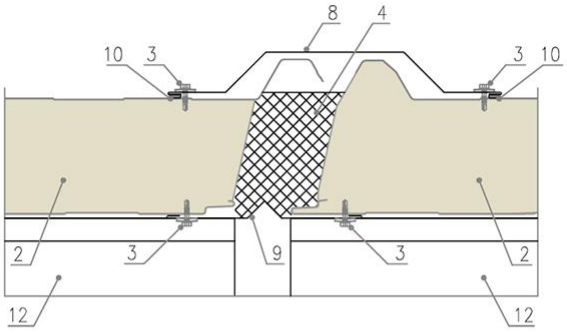


1. Wall panel
2. Self-tapping screw with EPDM washer
3. Polyurethane foam or impregnated PU gasket
4. Sealing
5. PES polyethylene tape
6. Flashing element
7. Steel profile, according to the design of the structure

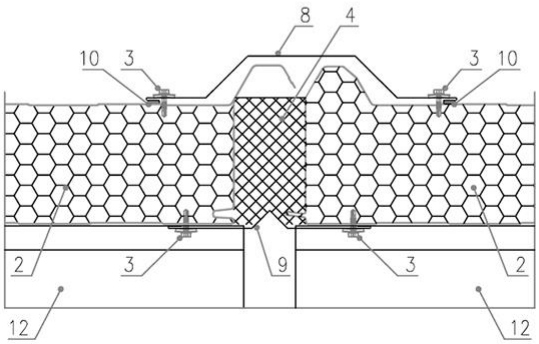
17. Sliding joint

Wall and roof panels

Posuvný spoj - strešný PIR panel

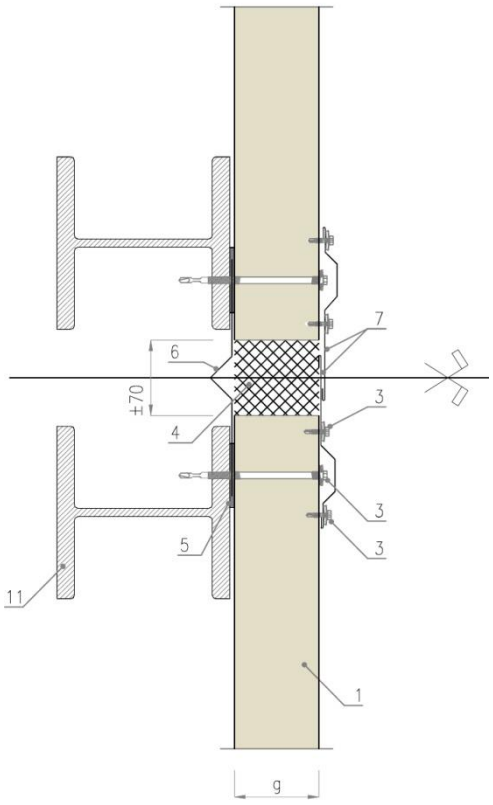


Posuvný spoj - strešný MV a EPS



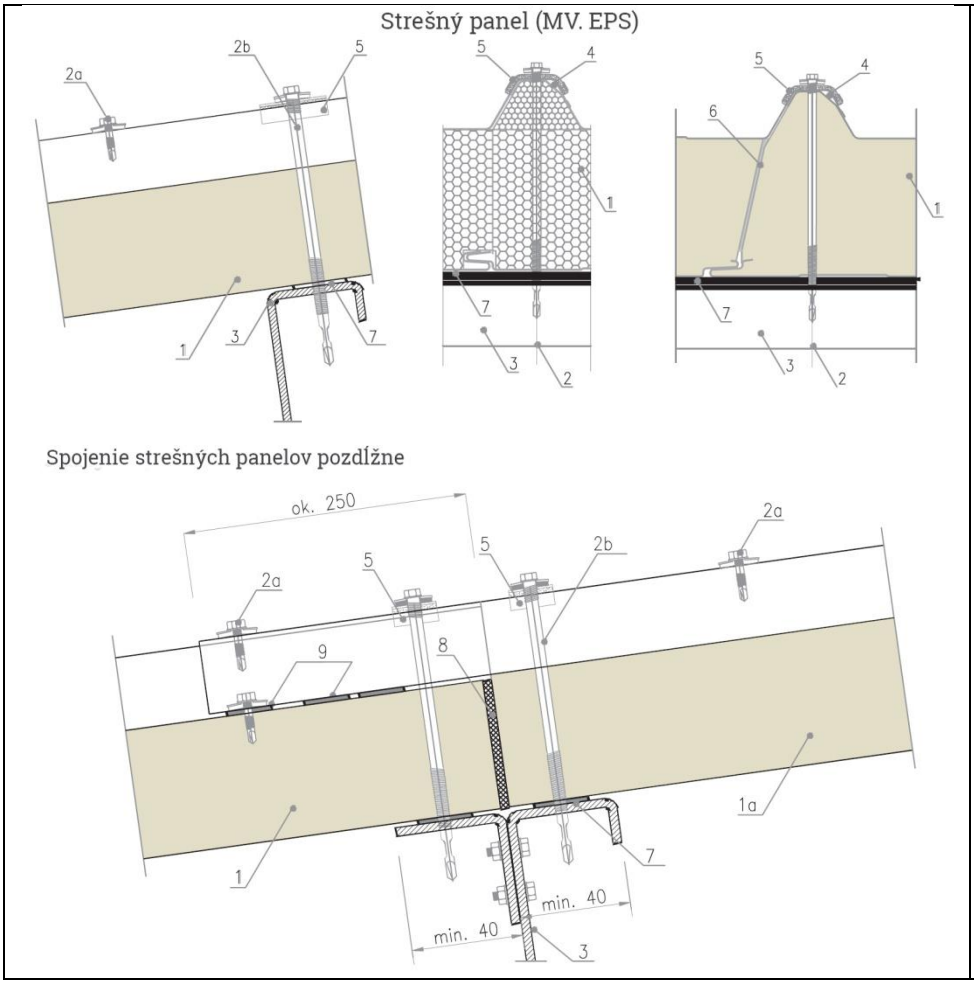
1. Wall panel
2. Roof panel
3. Self-tapping screw with EPDM washer
4. Insulation used during assembly
5. PES polyethylene tape
6., 7., 8., 9. Flashing element
10. Putty, permanently plastic
11. Steel profile, according to the design of the structure
12. Roof structure (prisons)

Posuvný spoj - stenový panel



18. Fastening to the structure with a side joint of the panel

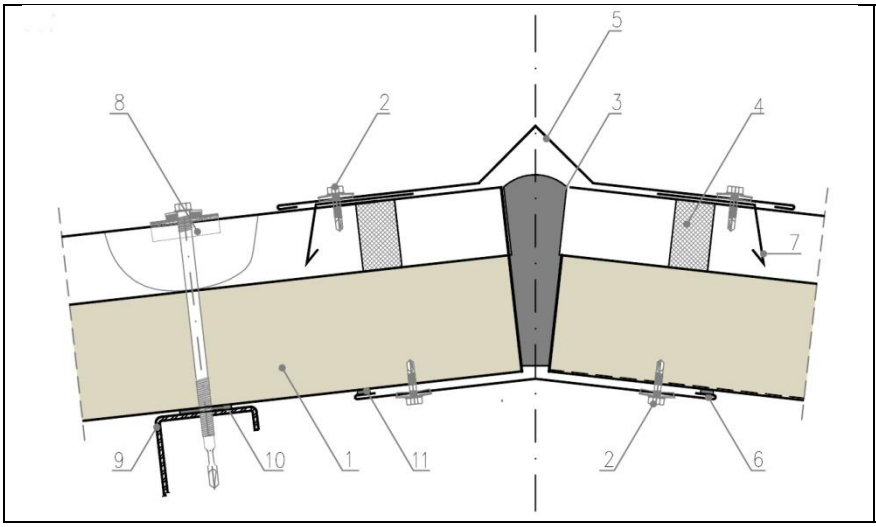
Roof panel



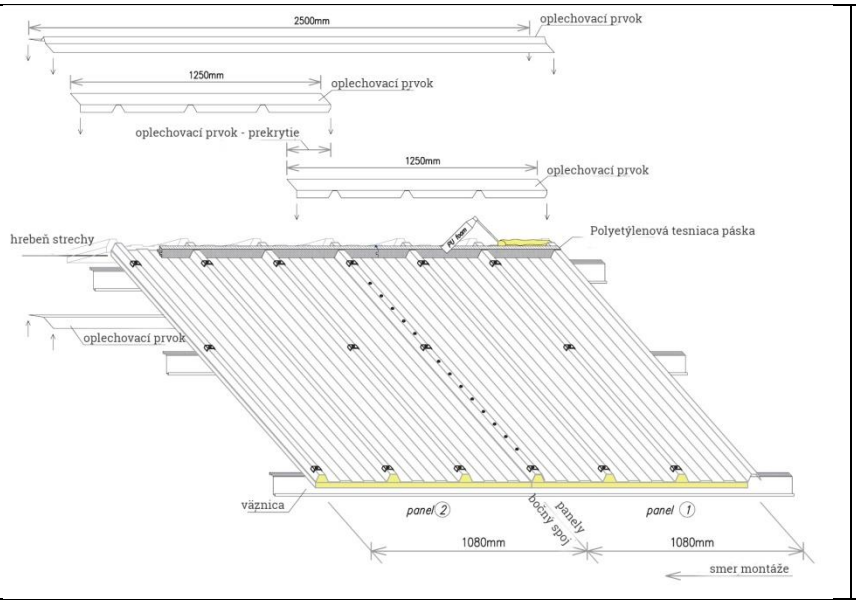
1. Roof panel
1a. 1a. Panel with an undercut core - removal of a core fragment during assembly; panel made with a pre-cut bottom facing
2. Axis of screws
2a. Self-tapping screw with EPDM washer (recommended undercut 30 cm)
2b. Self-tapping screw with EPDM washer
3. Prison
4. Capillary chamber
5. L-03 connecting element
6. Polyurethane gasket
7. PES polyethylene tape
8. PURS tape or polyurethane foam
9. Butyl tape, min. Minimum of 2 lanes (3 lanes recommended for low slope)

19. The ridge of the roof

Roof panel

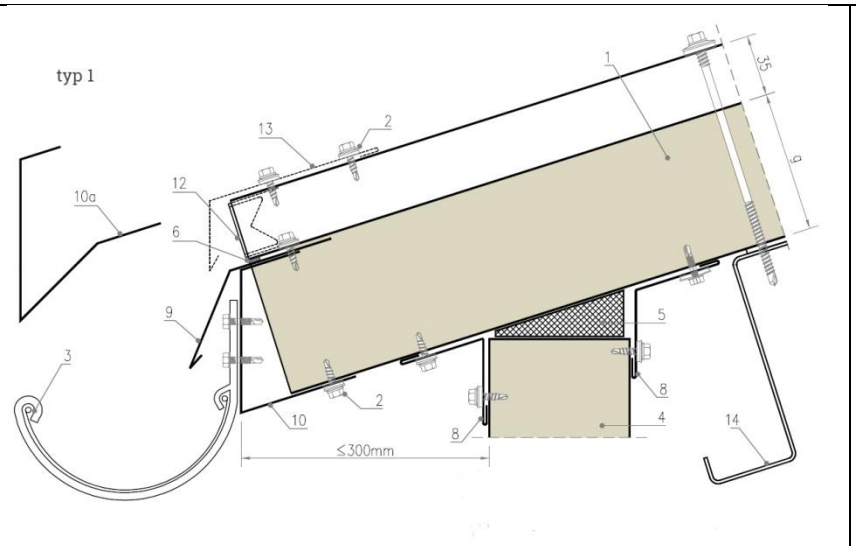


1. Roof panel
2. Self-tapping screw with EPDM washer
3. Polyurethane foam
4. Polyethylene sealing strip
5th, 6th, 7th. Flashing element
8. L-03 fastener "saddle pad"
9. Prison
10. PES polyethylene tape
11. Permanent plastic sealant

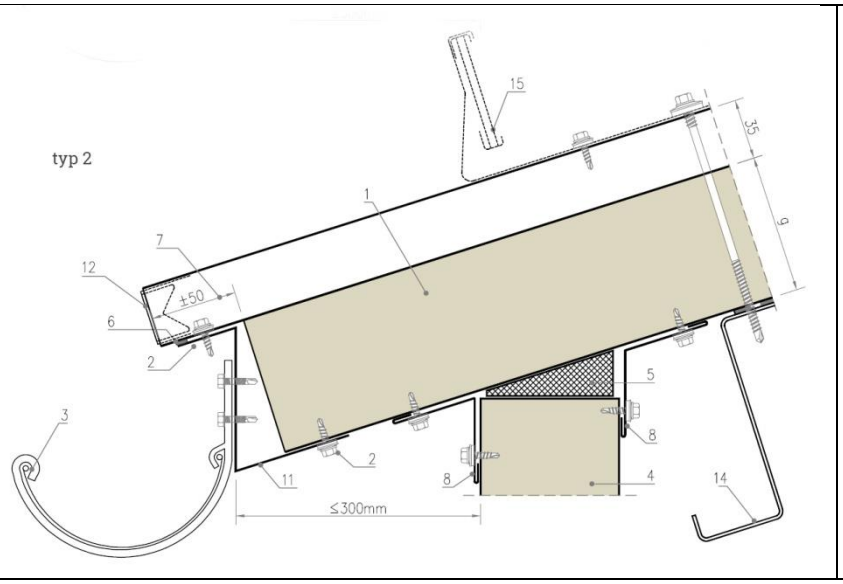


20. Gutters with optional attachment of snow guards

Roof panel

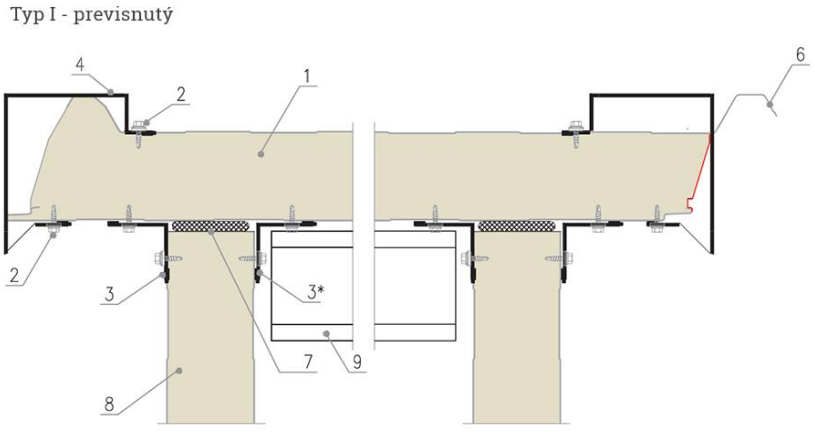


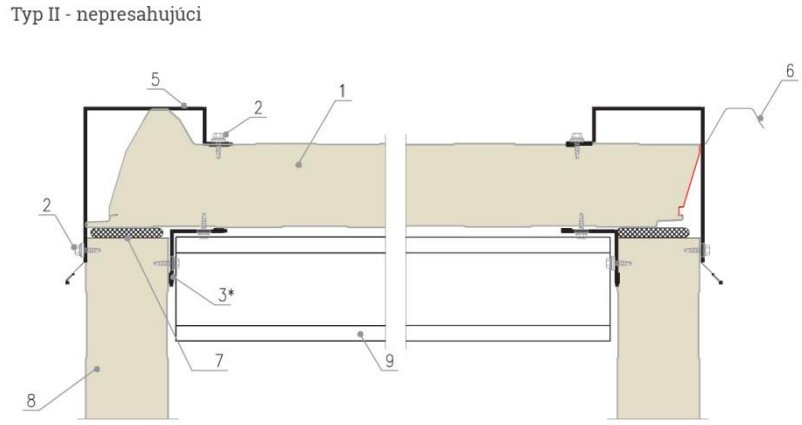
1. Roof panel
2. Self-tapping screw with EPDM washer
3. Gutter and steel gutter bracket
4. Wall panel
5. Polyurethane mounting foam
6. Sealing
7. Alternative undercutting of the panel at the eaves
8., 9., 10. Flashing element
10a. Own plating element
11. Sheeting element individually for an alternative panel with undercut
12. Plating element
13. Alternative plating element
14. Alternatively, a specific anti-snow system
15. Fastening screws for the snow barrier



21. Connecting element of the upper wall

Roof panel

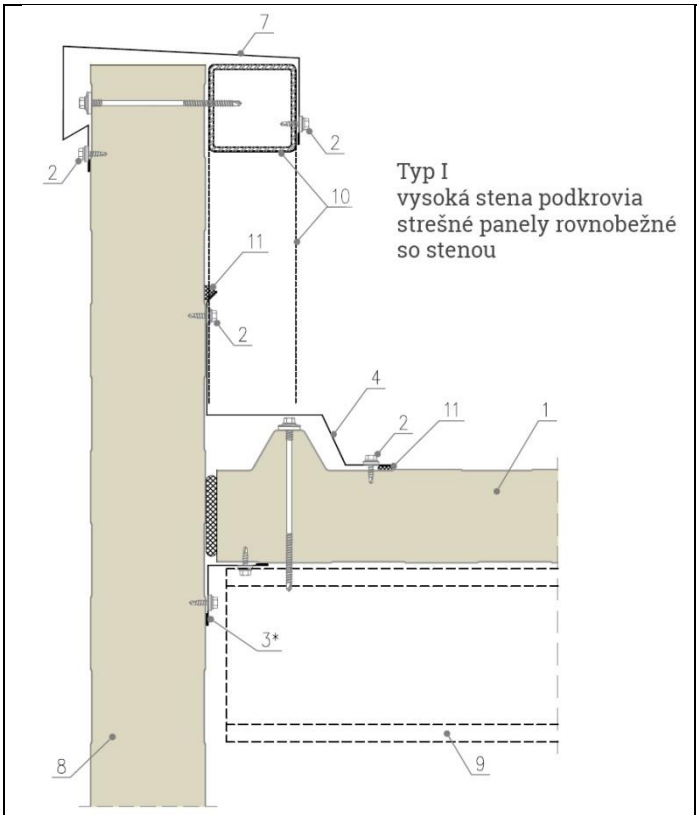


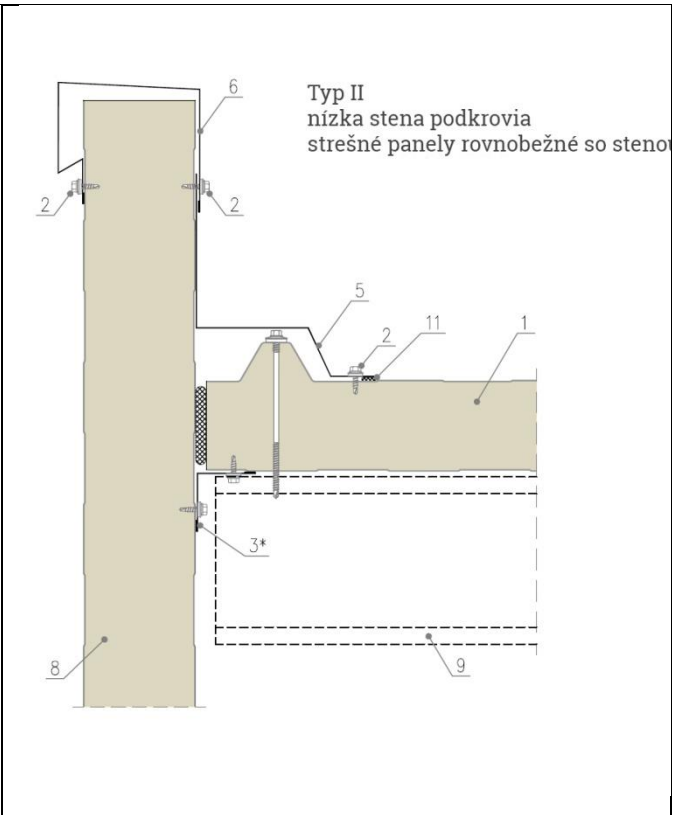


1. Roof panel
2. Self-tapping screw with EPDM washer
3., 4., 5. Flashing element
6. Cut on the construction site
7. Polyurethane mounting foam
8. Wall panel
9. Roof panel support (prison)+PES tape
10., 11. Optional plating element
12. Flashing element

22. Joint of the upper wall panel projecting above the roof

Roof panel

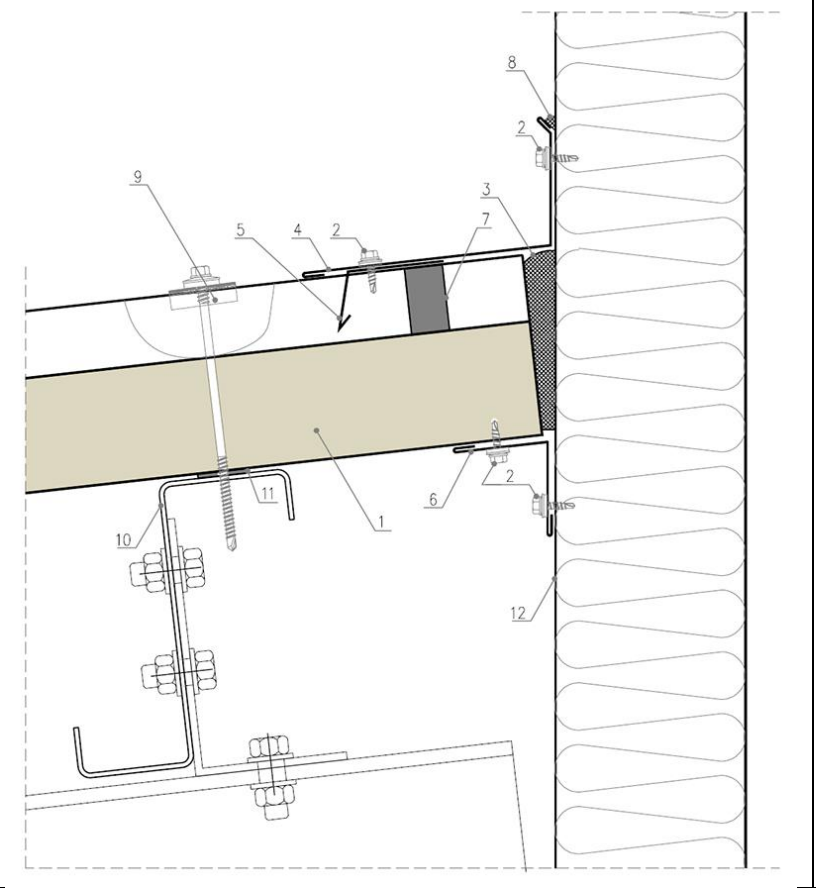




1. Roof panel
2. Self-tapping screw with EPDM washer
3. Polyurethane mounting foam
4.,5.,6.,7. Flashing element
8. Wall panel
9. Roof panel support (prison)+PES tape
10. Construction of attic walls
11. Permanent plastic sealant

23. The edge of the roof next to the wall of a higher building

Roof panel

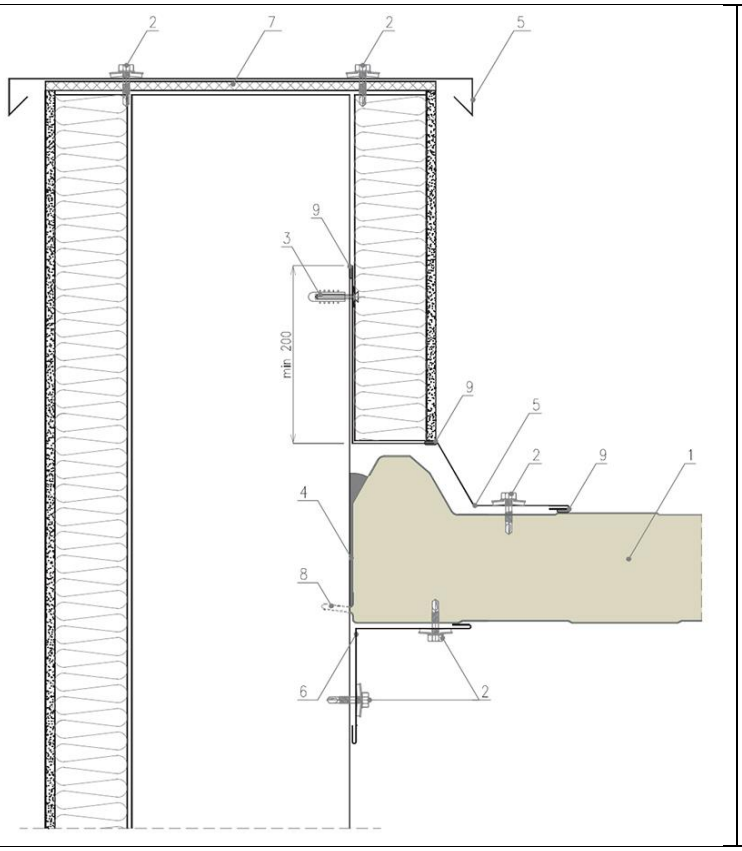


1. Roof panel
2. Self-tapping screw with EPDM washer
3. Polyurethane mounting foam
4., 5., 6. Flashing element
7. Polyethylene sealing strip adapted to the profile of the panel
8. Sealing
9. L-03 fastener
10. Prison
11. PES polyethylene tape

12. The wall of a higher building

24. A joint of a brick wall projecting above the roof

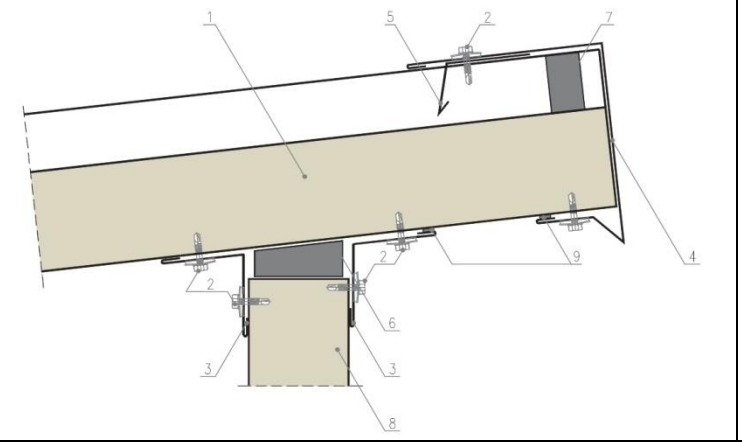
Roof panel



1. Roof panel
2. Self-tapping screw with EPDM washer
3. Push-in dowel
4. Polyurethane mounting foam
5., 6. Flashing element
7. Panel for installation of sheet metal (e.g. OSB panel)
8. Cutting off at the construction site
9. Putty, permanently plastic

25. The joint of the higher edge of the single-pitched roof

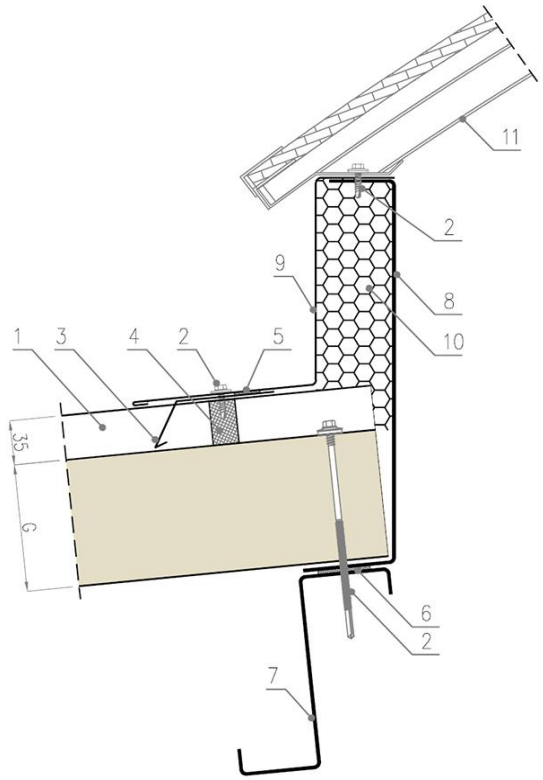
Roof panel



1. Roof panel
2. Self-tapping screw with EPDM washer
3., 4., 5. Flashing element
6. Polyurethane mounting foam
7. Polyethylene sealing strip adapted to the profile of the roof panel
8. Wall panel
9. Putty, permanently plastic

26. Roof ridge skylight

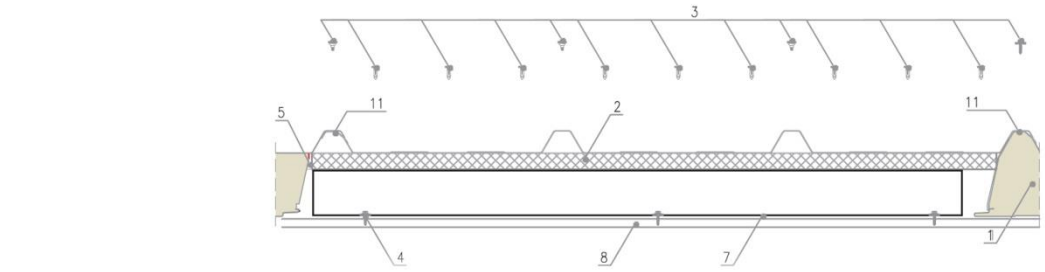
Roof panel



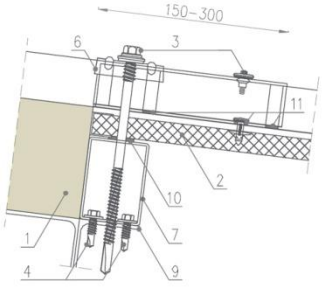
1. Roof panel
2. Self-tapping screw with EPDM washer
3. Flashing element
4. Polyethylene sealing tape adapted to the profile of the roof panel
5. Sealing butyl tape
6. PES polyethylene tape
7. Prison
8. Skylight base according to individual project
9. Flashing element
10. Thermal insulation material of the skylight
11. Skylight

27. Skylight strip

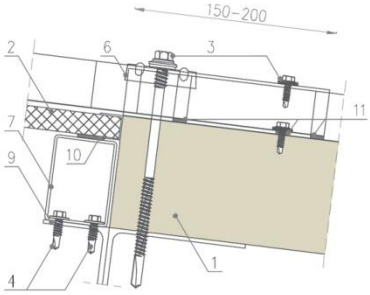
Roof panel

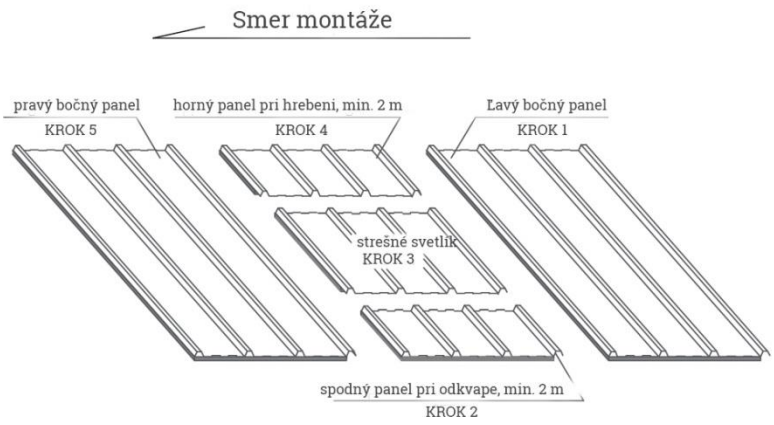


Spoj na dlhšej strane strešného panelu so svetlíkom na strane hrebeňa strechy

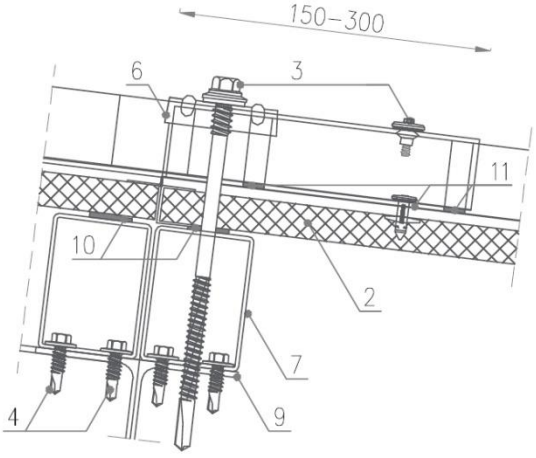


Spoj na dlhšej strane strešného panelu so svetlíkom na strane odkvapu





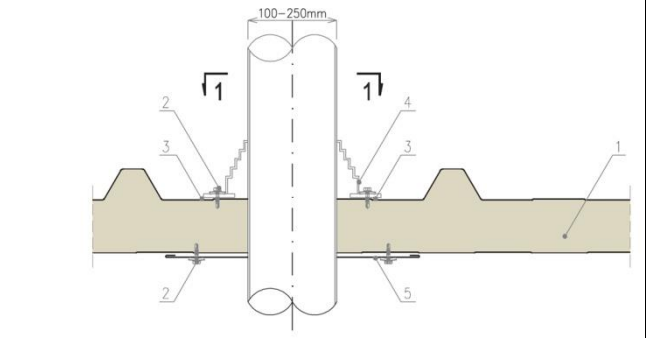
Pozdĺžny spoj svetlíkov



1. Roof panel **2.** Polycarbonate panel with resin and glass lining **3.** System screws and rivets - every 300 mm on the edges **4.** Self-tapping screw with EPDM washer **5.** Flashing element **6.** L-03 fastener **7.** Spacer **8.** Prison	**9.** Lower structure, if the width of the bars is < 100 mm **10.** PES polyethylene tape **11.** Butyl tape

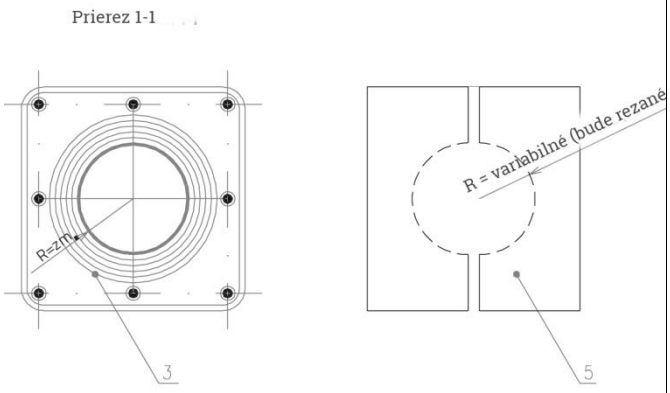
28. Roof penetration

Roof panel



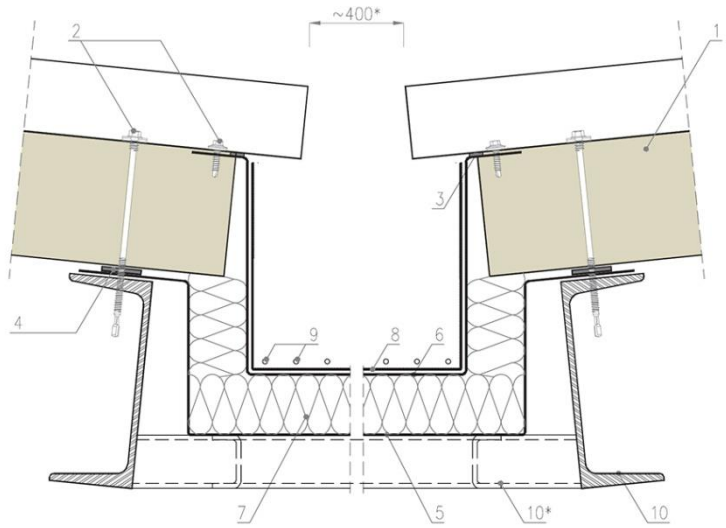
Veľkosť goliera	1	2	3	4	5	6	7	8
Vonkajší priemer rúrky [mm]	5-50	44-82	6-127	75-160	108-190	125-230	150-280	175-330

1. Roof panel
2. Self-tapping screw with EPDM washer
3. Rubber-based roofing sealant
4. Pipe sealing sleeve
5. Plating element



29. Internal gutter in the joint of the roof panels

Roof panel

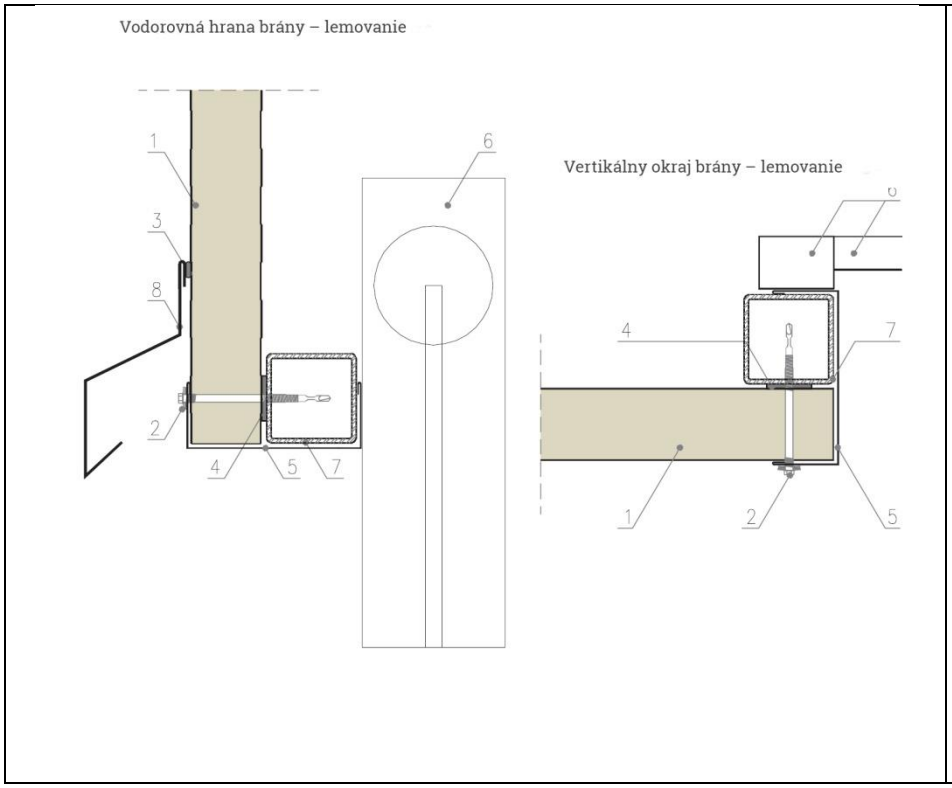


1. Roof panel
2. Self-tapping screw with EPDM washer
3. Putty, permanently plastic
4. PES polyethylene tape
5. External gutter profile – individual, load-bearing*
6. Internal gutter profile – individual*
7. Thermal insulation
8. Water insulation
9. Gutter heating
10. Steel section*

* The dimensions of the gutter, its support and heating installation should be selected individually with regard to the slopes and functions of the gutter by the architect

30. Connecting the panels to the edge of the gate - edging

Roof panel

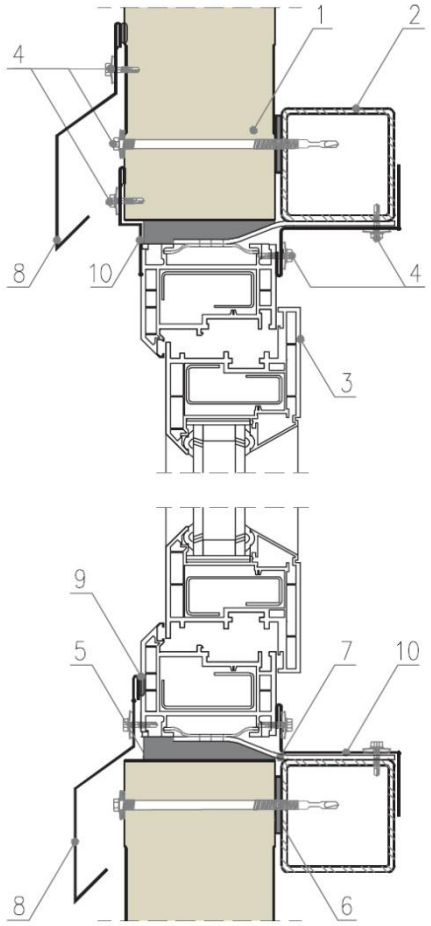


1. Wall panel
2. Self-tapping screw with EPDM washer
3. Putty, permanently plastic
4. PES polyethylene tape
5. Flashing element
6. Gate elements
7. Steel profile, according to the design of the structure
8. Flashing element

31. Connecting the panels to the edge of the window

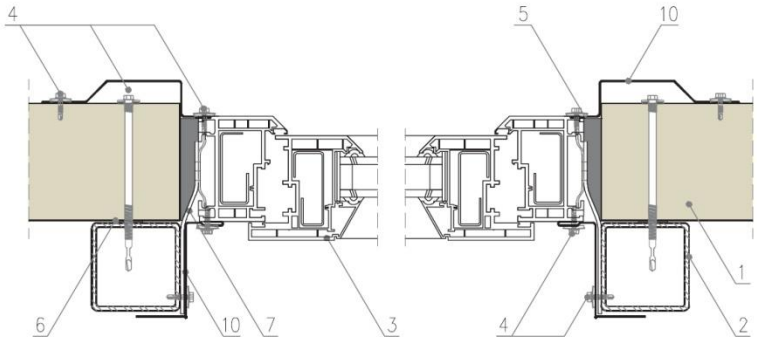
Wall panel

Vodorovný okraj okna – lemovanie



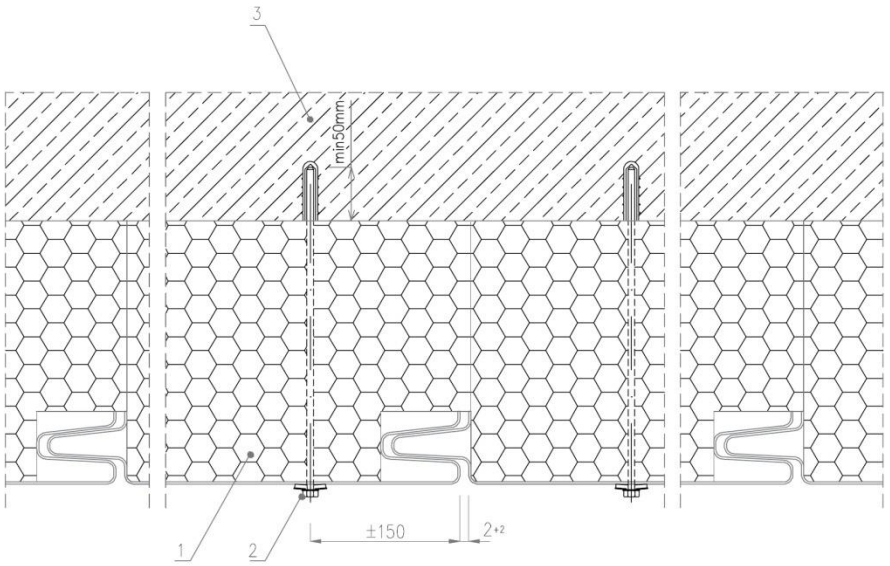
1. Wall panel
2. Steel profile, according to design structure
3. Window with handle and cap
4. Self-tapping screw with EPDM washer
5. Polyurethane mounting foam
6. PES polyethylene tape
7. Window anchor **8.** Flashing element
9. Putty, permanently plastic 10. Flashing element

Vertikálny okraj okna - lemovanie



32. Use of a sandwich panel with one-sided steel sheeting

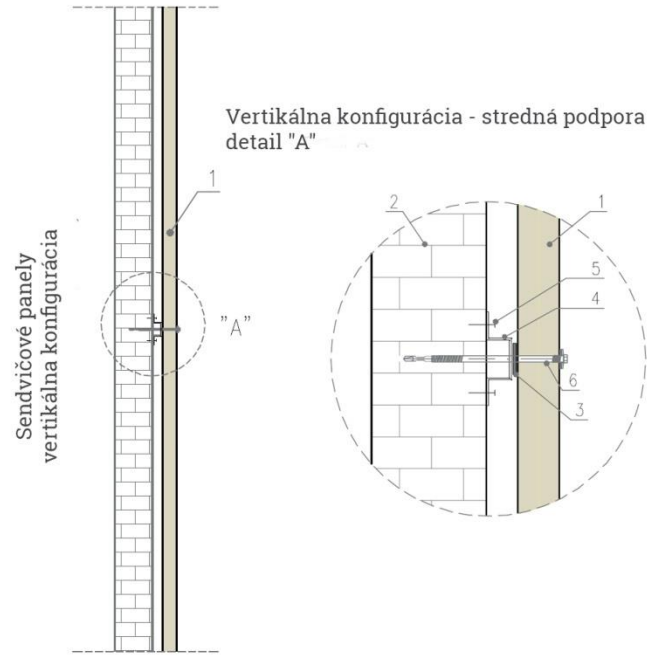
Wall panel



1. Wall panel with one-sided plating
2. Steel screw with galvanized surface
3. Foundation for panels (masonry, reinforced concrete)

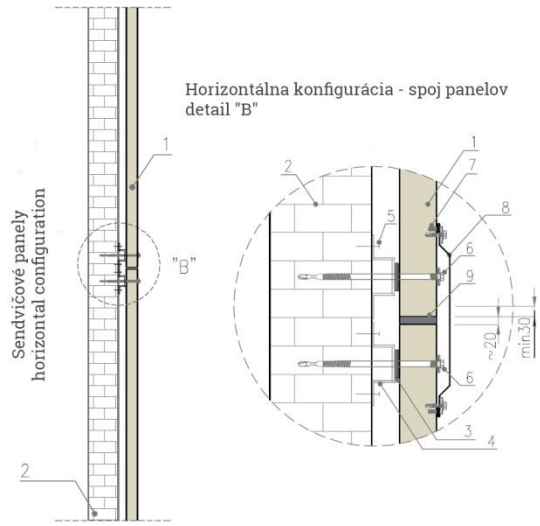
33. Wall mounting

Wall panel



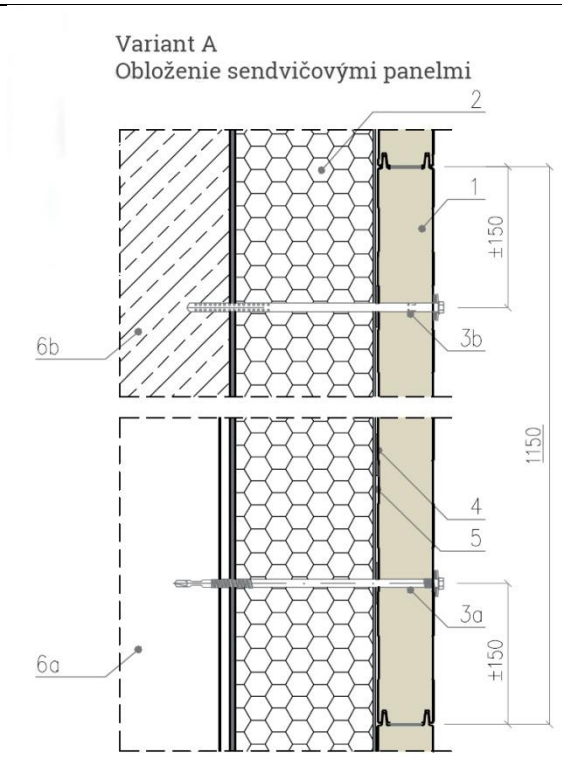
** The shape and location of the steel part 4 must allow the correct assembly of the fastening elements (screws for the drive).*
*** The type and spacing of steel anchors 5 must be defined according to the loads.*

1. Wall panel **2.** Brick wall
3. PES polyethylene tape
4. Custom steel part according to the drawing*
5. Steel anchor**
6. Self-tapping screw with EPDM washer
7. Putty, permanently plastic **8.** Flashing element
9. Polyurethane foam as a filling of movement joint ~20 mm

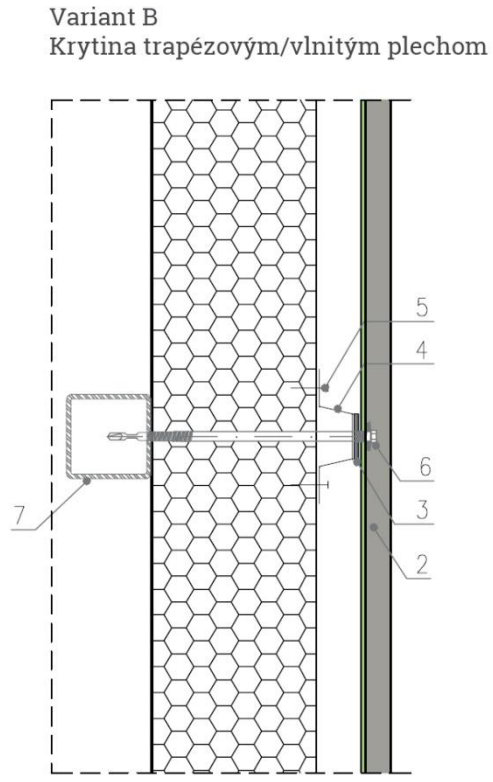


34. Installation of an additional view on existing panels

Wall panel

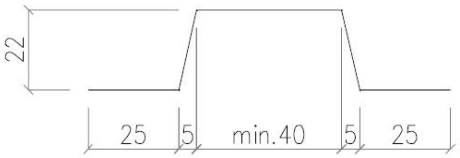


1. Sandwich panel (horizontal configuration)
2. Existing lightweight cladding panels
3a. Self-tapping screw with EPDM washer
3b. Connecting screw for reinforced concrete with EPDM pad
4. PES tape vertically along the line of fasteners
5. PES tape horizontally (3 rows for each panel)
6a. Steel column
6b. Reinforced concrete column



1. Sandwich panel (horizontal configuration)
2. Trapezoidal/corrugated sheet
3. Self-adhesive PES sealing tape
4. Custom steel part according to the drawing
5. Galvanized self-tapping fastener 4.8 x 20 mm
6. Self-tapping screw with EPDM washer
7. Steel profile, according to the design of the structure

Zákazková oceľová časť plechu 0,88 mm



35. Joint of freezer panels with concrete and PVC corner

Freezer panel

<table>
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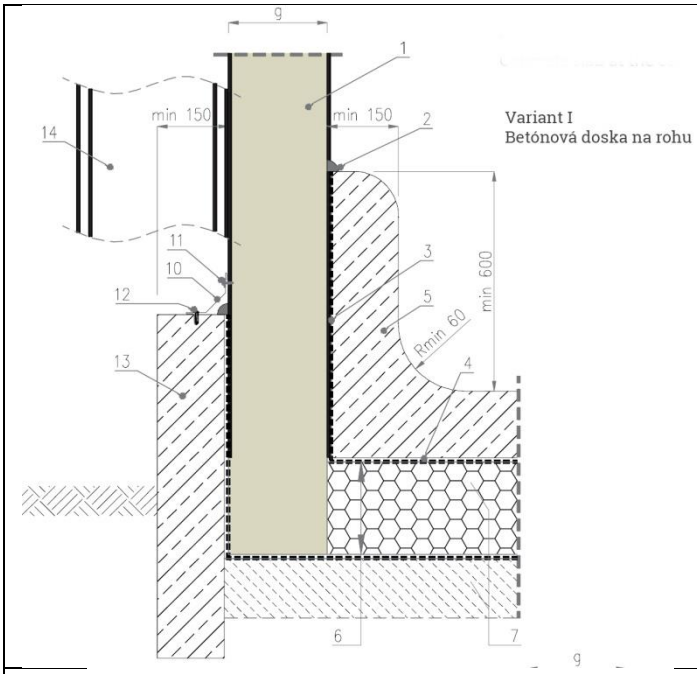
<td> 
</td>
<td>1. Freezer panel
2. Putty, permanently plastic
3. Vertical waterproof layer
4. Horizontal waterproof layer
5. Concrete floor
6. Remove the lining up to the thermal height insulation
7. Thermal insulation according to the project
8. PVC profile in the corner
9. Stainless steel self-tapping screw with washer
10. Plating element
11. Self-tapping screw with EPDM washer
12. Push-in dowel
13. Ground beam
14. Steel profile, according to the design of the structure</td>
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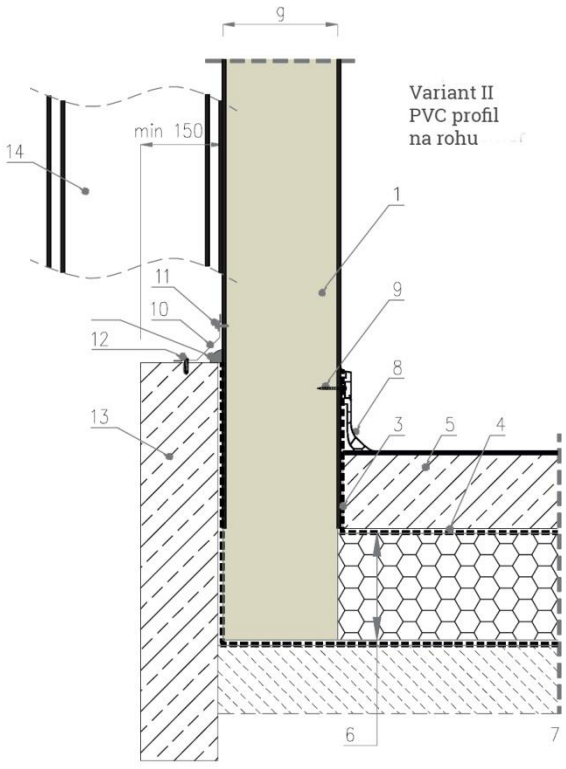
<td> 
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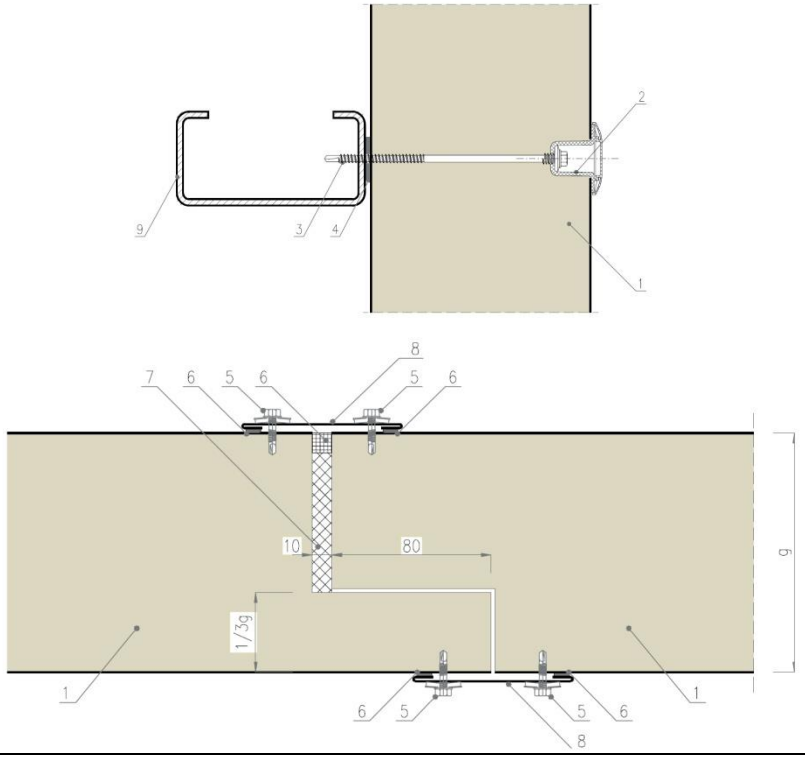
36. Fastening freezer panels using lax screws

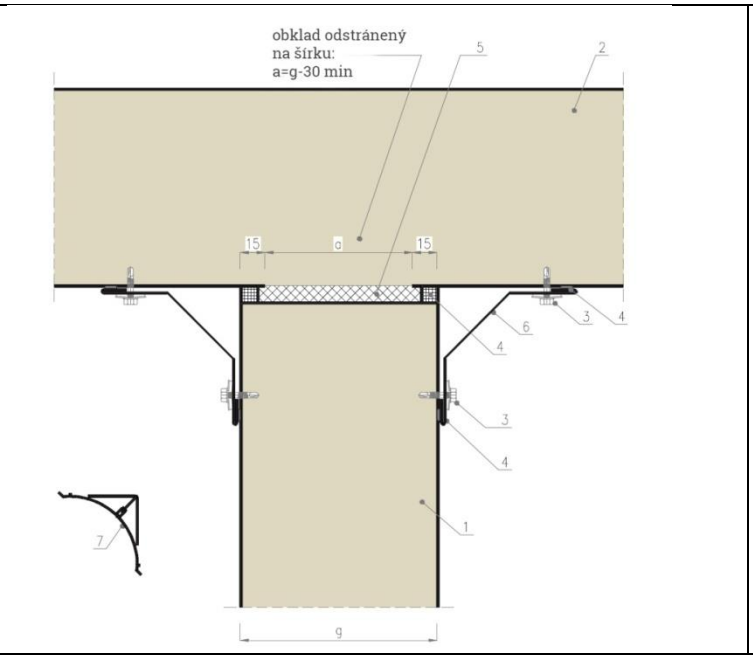
Freezer panel, connecting freezer panels along their length



1. Freezer panel
2. LAX fastener to reduce thermal bridges (socket + EPDM seal + cap)
3. Self-tapping screw with EPDM washer
4. Self-adhesive PES sealing tape
5. Self-tapping screw with EPDM pad for sheeting elements
6. Putty, permanently plastic
7. Polyurethane mounting foam
8. Flashing element
9. Steel profile, according to the design of the structure

37. Connection of an external wall or ceiling with a dividing wall

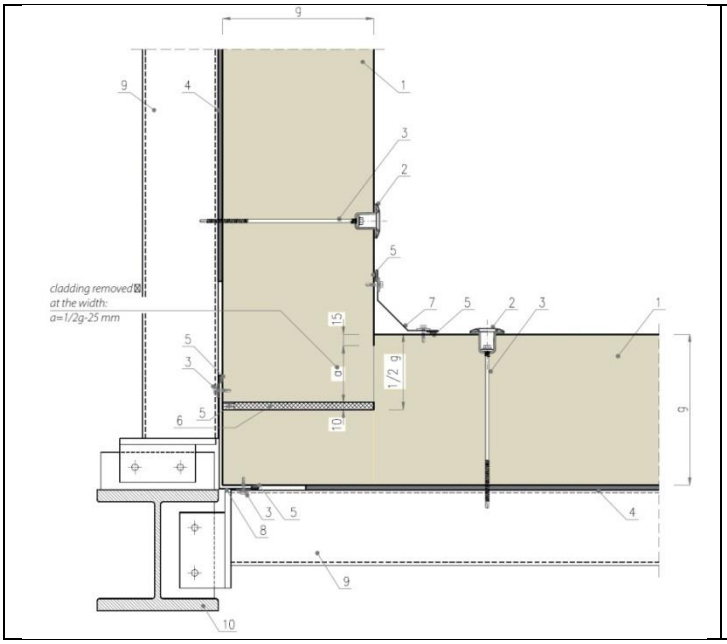
Freezer panel



1. Mraziarensky panel – deliaca stena
2. Mraziarensky panel – vonkajšia stena alebo strop
3. Samorezná skrutka s EPDM podložkou
4. Tmel, trvalo plastický
5. Polyuretánová montážna pena
6. Oplechovací prvok
7. Voliteľný PVC rohový profil

38. Fixing freezer panels in the corner

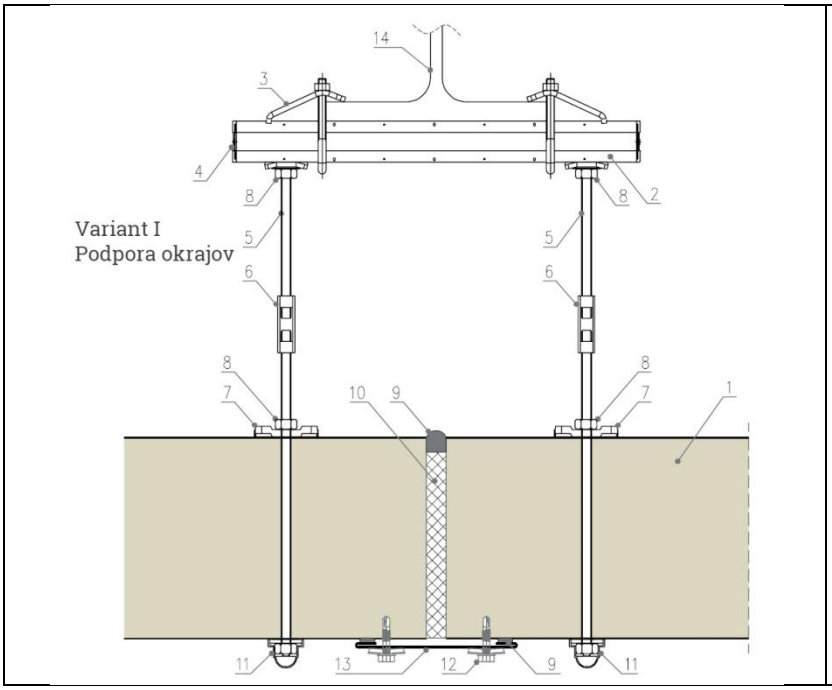
Freezer panel



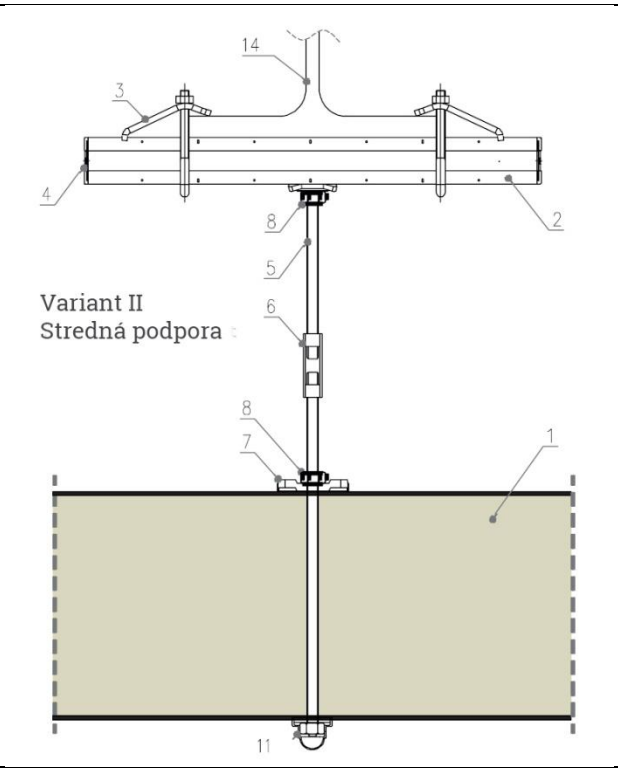
1. Freezer panel
2. LAX fastener to reduce thermal bridges (socket + EPDM seal + plug)
3. Self-tapping screw with EPDM washer
4. Self-adhesive PES sealing tape
5. Putty, permanently plastic
6. Polyurethane mounting foam
7. 8. Flashing element
9. Steel prison according to the design of the structure
10. Steel profile, according to the design of the structure

39. Hilti system

Freezer panel, hanging refrigeration panels using the HILTI system



1. Freezer panel
2. System splint, type MQT-41
3. System terminal, type MQT-21-41
4. System plug, type MQZ-E41
5. Threaded steel rod M10, each max. 1.5 m
6. Tensioner
7. System splint, type MQZ-L11
8. Nut M10
9. Putty, permanently plastic
10. Polyurethane mounting foam
11. M10 nut with protective cap
12. Self-tapping screw with EPDM washer
13. Flashing element
14. Steel profile, according to the design of the structure


14
3
4
8
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Variant II
Stredná podpora
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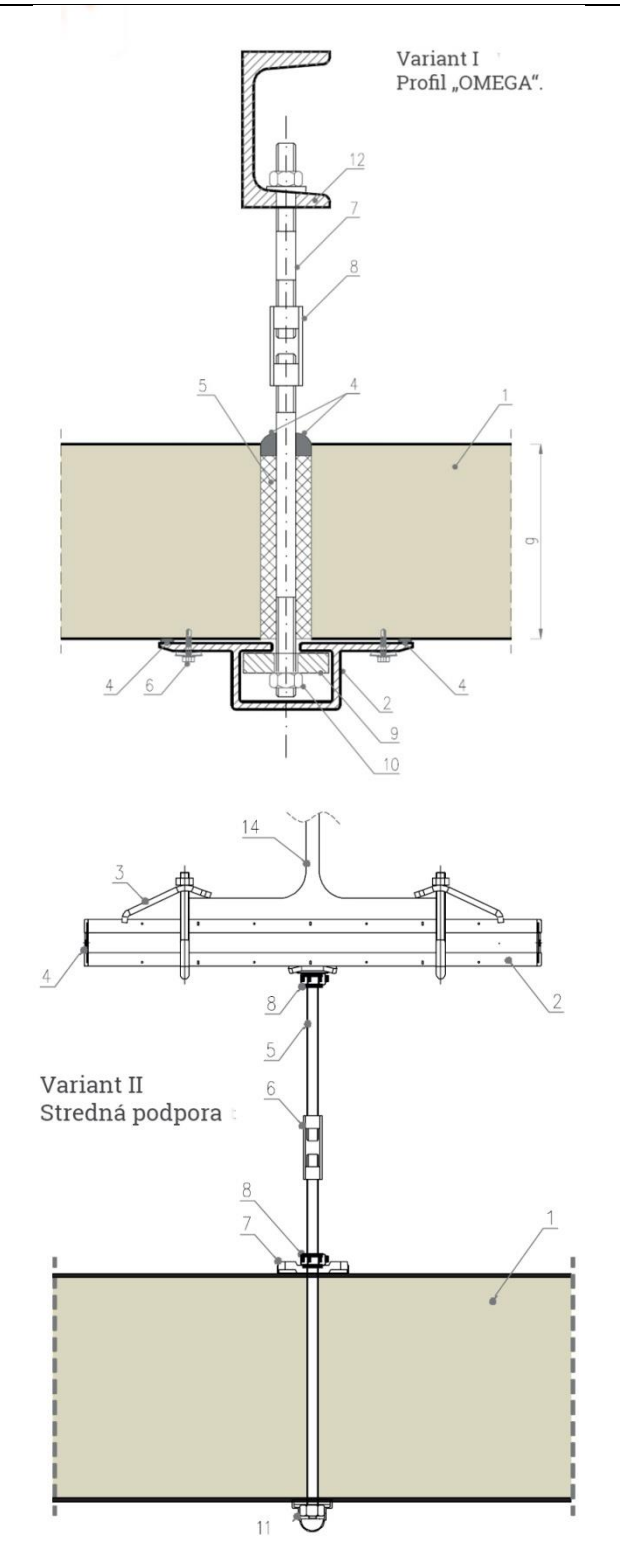
1
11

40. Omega profile

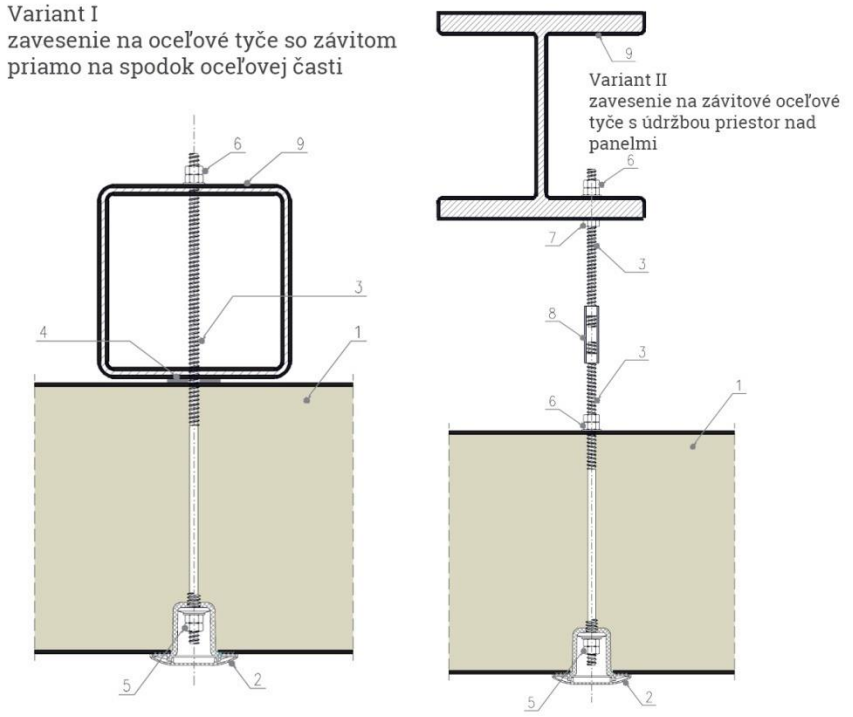
Freezer panel, hanging panels using "T" and "OMEGA" profiles.



1. Freezer panel
2. "OMEGA" system profile (polyester)
3. System profile "T" (aluminum)
4. Putty, permanently plastic
5. Polyurethane mounting foam
6. Self-tapping screw with EPDM washer
7. Threaded steel rod M10 or M12, each max. 1.5 m
8. Tensioner
9. Spacer
10. Nut M10 or M12
11. System terminal (hanger)
12. Steel profile, according to the design of the structure

41. Hanging panels using lax system fasteners

Freezer panel



1. Freezer panel
2. LAX fastening element for reduction of thermal bridges (socket + EPDM seal + plug)
3. Threaded rod - diameter and pitch
according to the proposal
4. Self-adhesive PES sealing tape
5. Nut + lock nut, EPDM washer + steel washer
6. Nut + lock nut + steel washer
7. Nut + steel washer M12, each max. 1.5 m
8. Tensioner
9. Steel truss or lower rafter belt according to the design of the structure

All technical drawings and situations can be found in a separate catalog here (under preparation) »

Cladding elements and their location?

Visualizations of the cladding element + placement examples

For aesthetics, protection and proper drainage of rainwater, cladding elements (stripes) are used, which are made of colored galvanized sheet metal with a thickness of 0.5 to 1.25 mm. The inner side has a surface treatment of polyester and the outer side of 25 micrometer (µm) polyester as a standard layer thickness (it can also be a thicker layer for more aggressive environments). The standard length of the sheet is 6 m. Colors are available in RAL shades as for sandwich panels.

We offer two types of plating elements: 41 pcs and 33 pcs. The possibility of entering your own parameters. We have prepared visualizations of the cladding element and placement examples. Larger images can be found at www.paneleshop.ru in the accessories section.

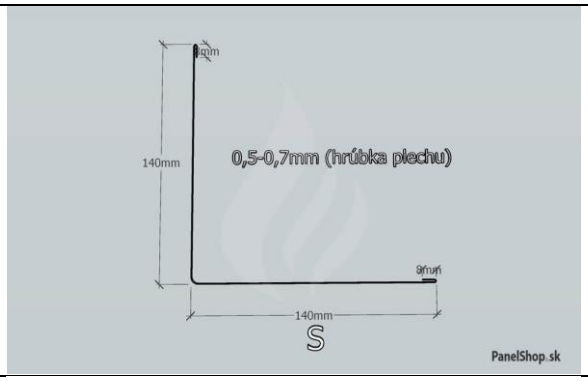
Types of plating are divided into roof and wall:

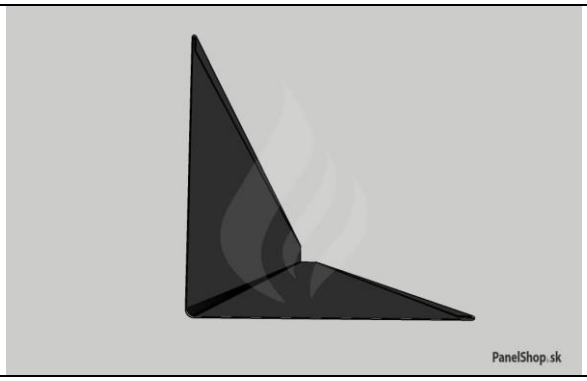
Roof elements	**Wall elements**
• comb elements • expansion elements • flashing of skylights • connecting the roof panels to the wall • connecting the roof panels to the panel wall • flashing of shields • tinning of attics • flashing of gutters	• flashing of corners and internal corners • cover strips - panel joints • connection of panels to neighboring buildings • flashing of windowsills • flashing holes • flashing of windows, doors and gates • flashing metal blinds

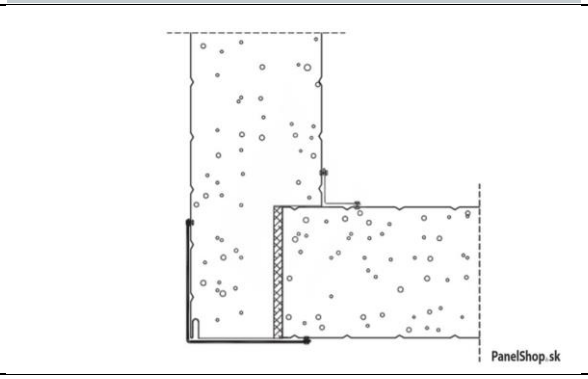
Plating elements (First group, 41 pcs.)

Flashing – (01.1) External straight corner

Product code: PO01_01_xxx



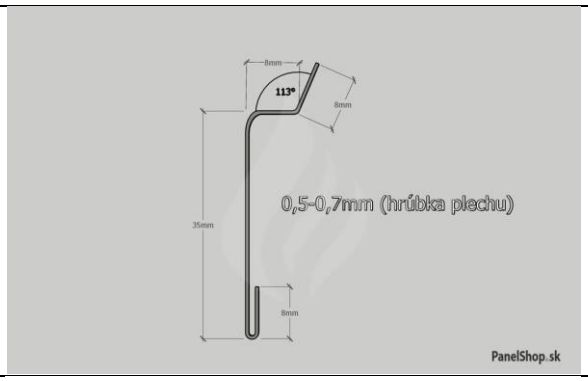


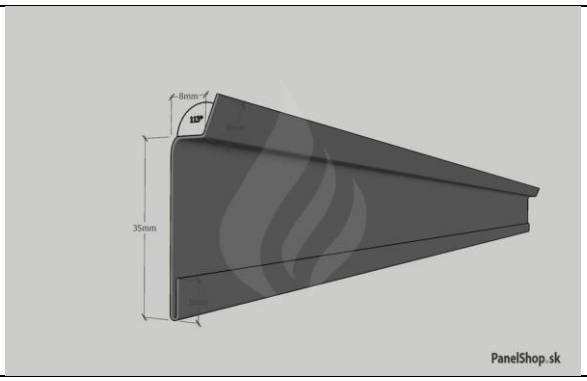


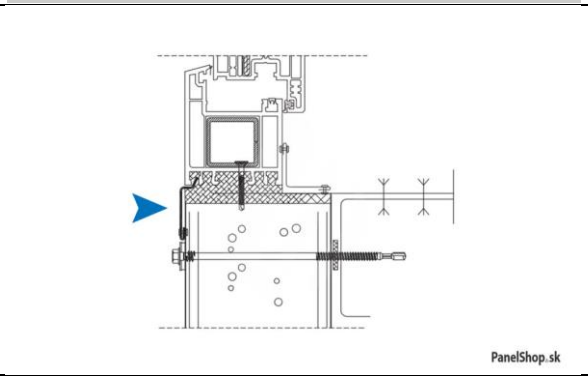
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (02.1) External window molding – Sheet metal_06

Product code: PO02_01_xxx



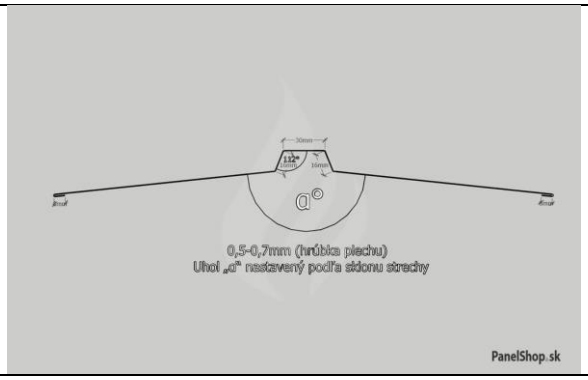


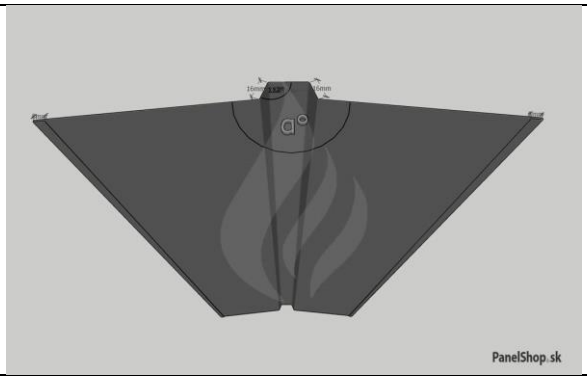


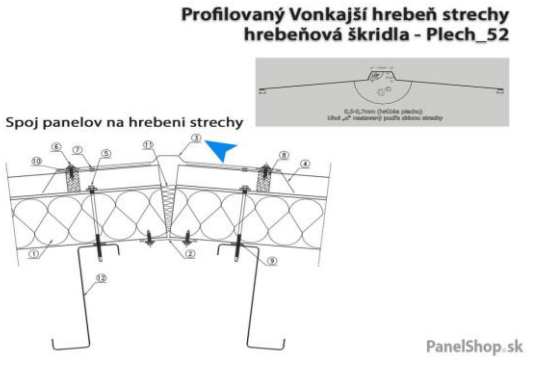
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

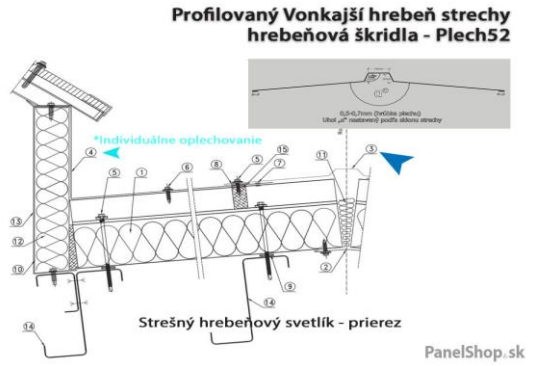
Flashing – (02.1) External window molding – Sheet metal_06

Product code: PO02_01_xxx





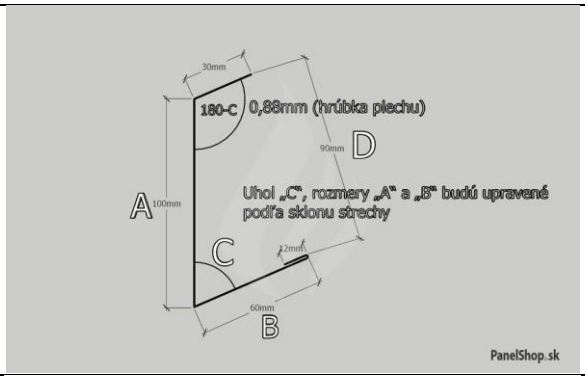


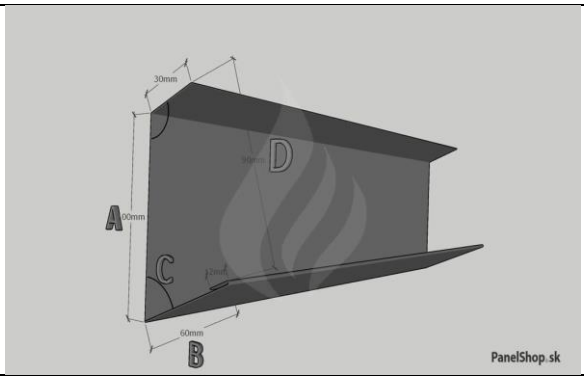


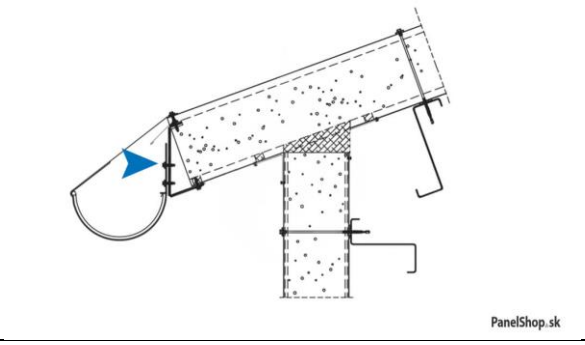
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (04.1) Gutter masking frame option 1 – Sheet_57

Product code: PO04_01_xxx



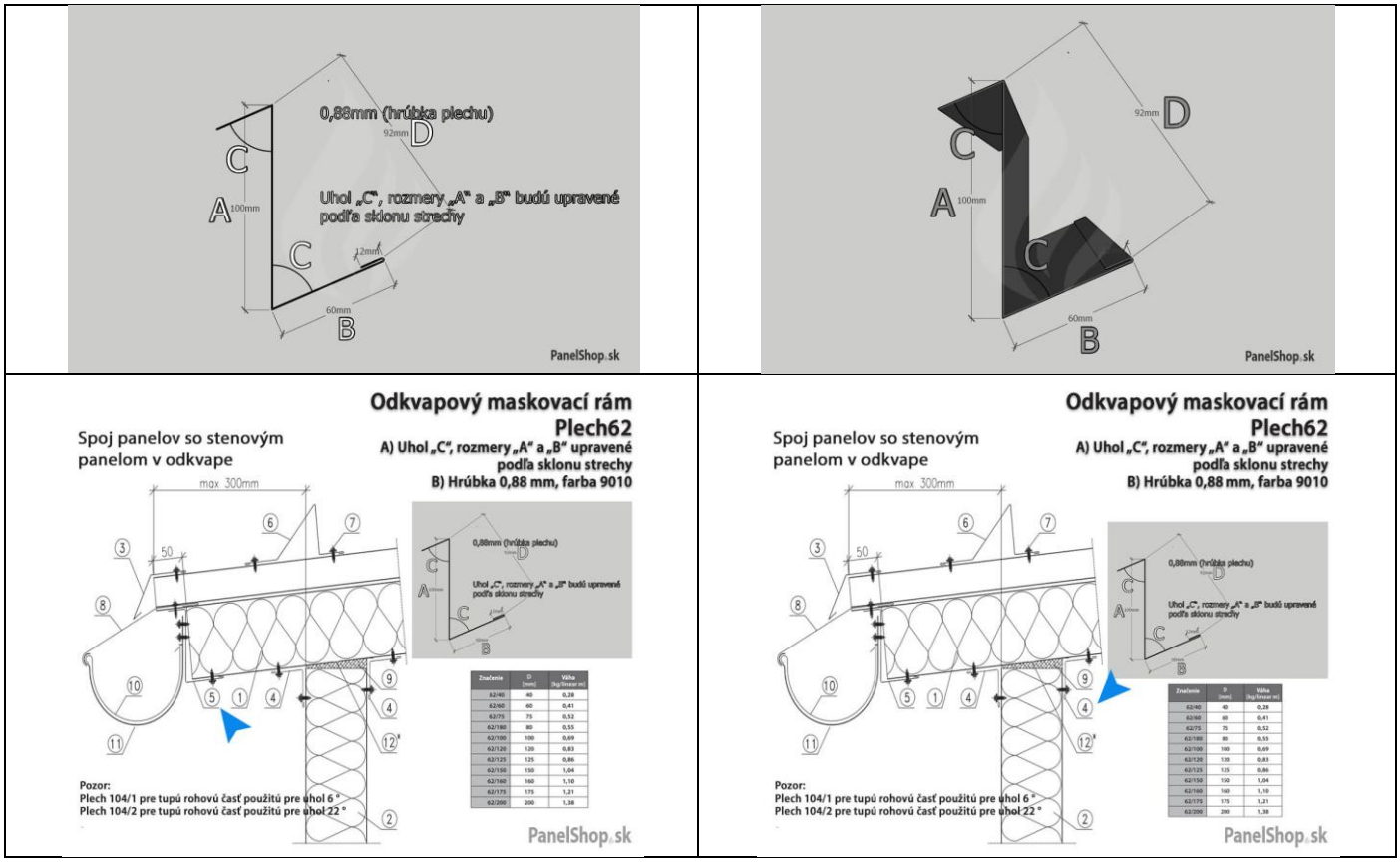




You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (05.1) Eaves masking frame option 2 – Sheet metal_62

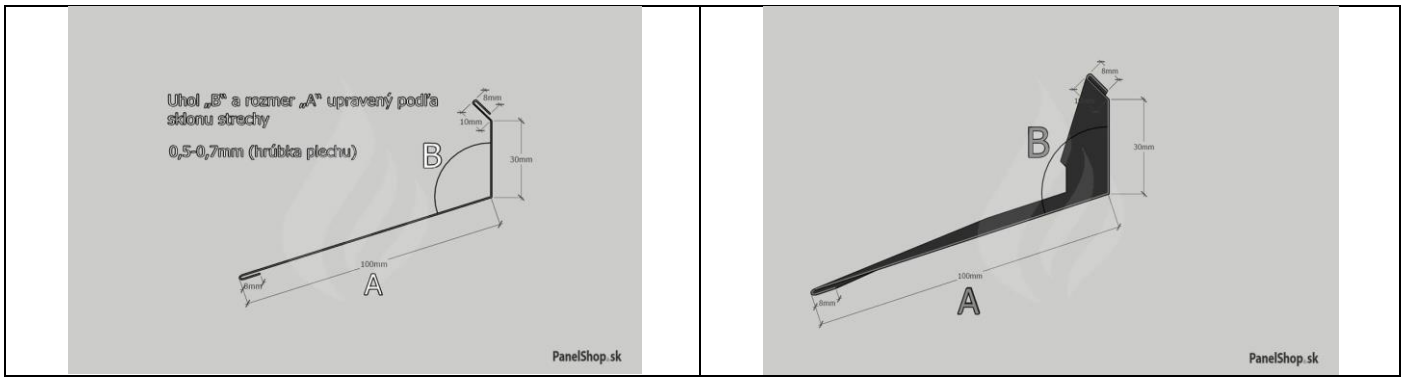
Product code: PO05_01_xxx

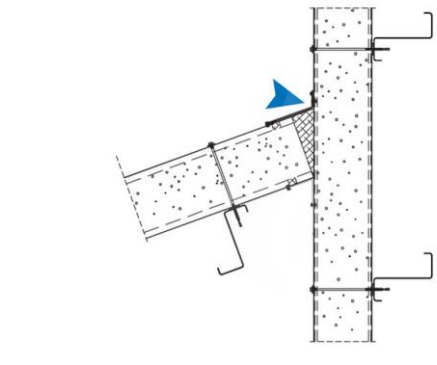


You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (06.1) Wall Roof masking frame bending back – Sheet metal_74

Product code: PO06_01_xxx

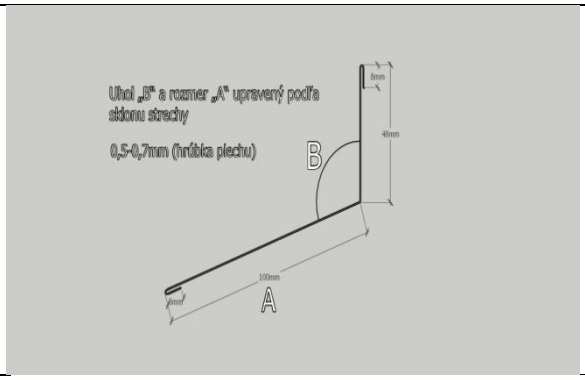


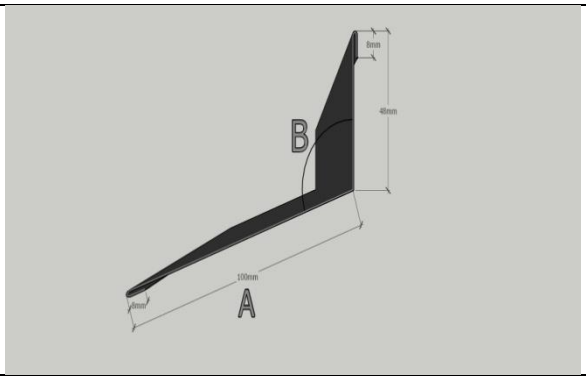


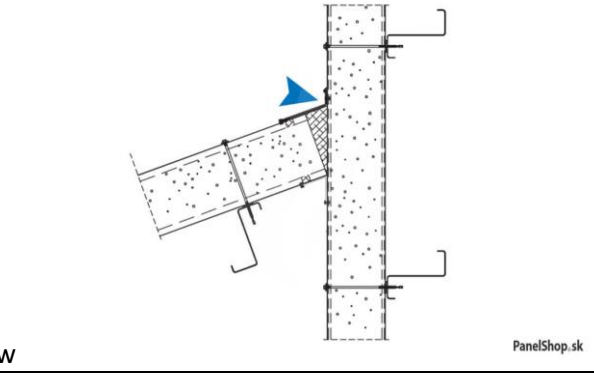
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing - (07.1) Wall-roof masking frame straight - Sheet_76

Product code: PO07_01_xxx







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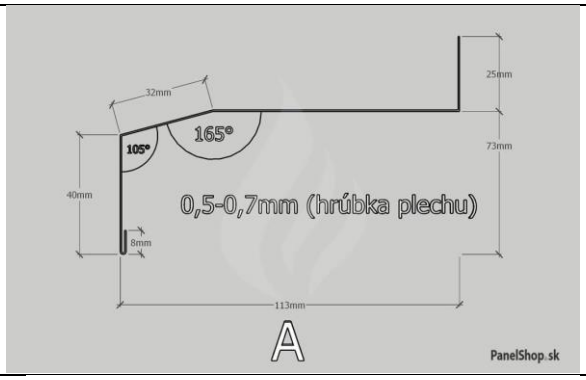
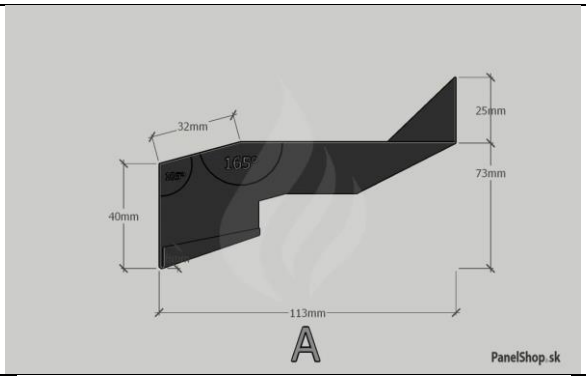
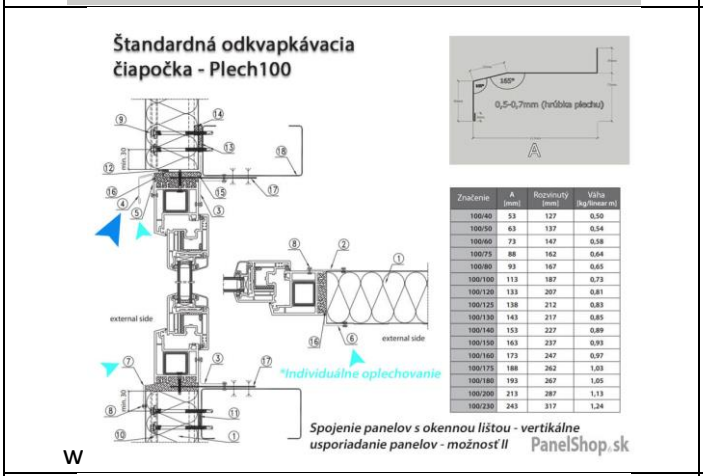
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

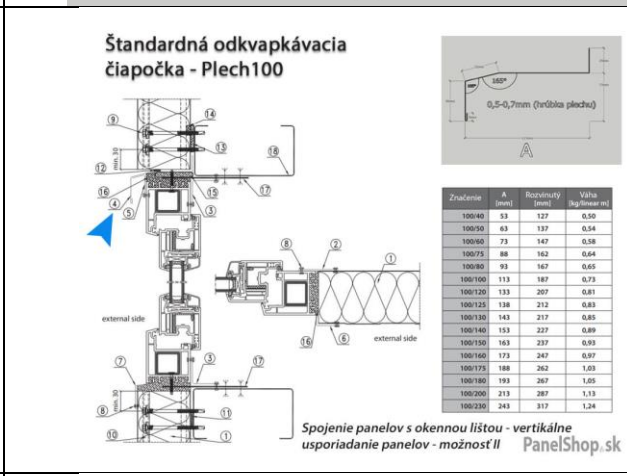
Flashing - (08.1) Standard drip cap - Sheet_100

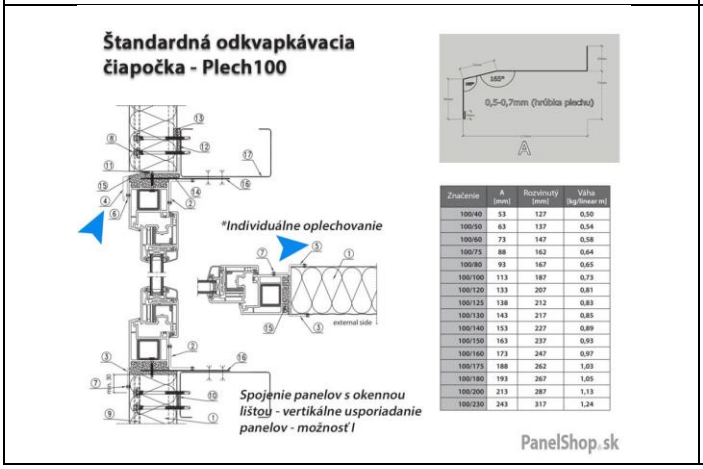
Product code: PO08_01_xxx

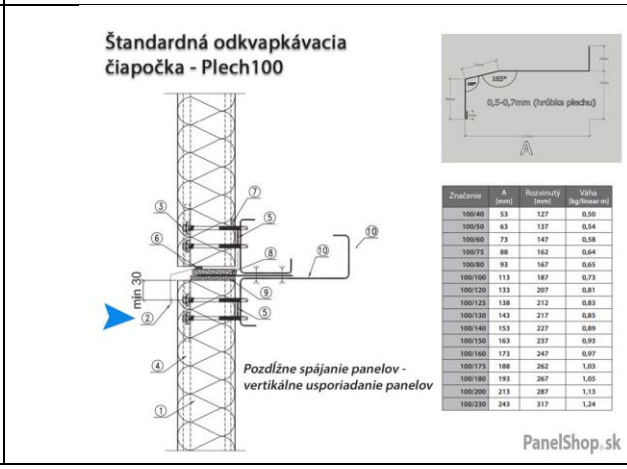








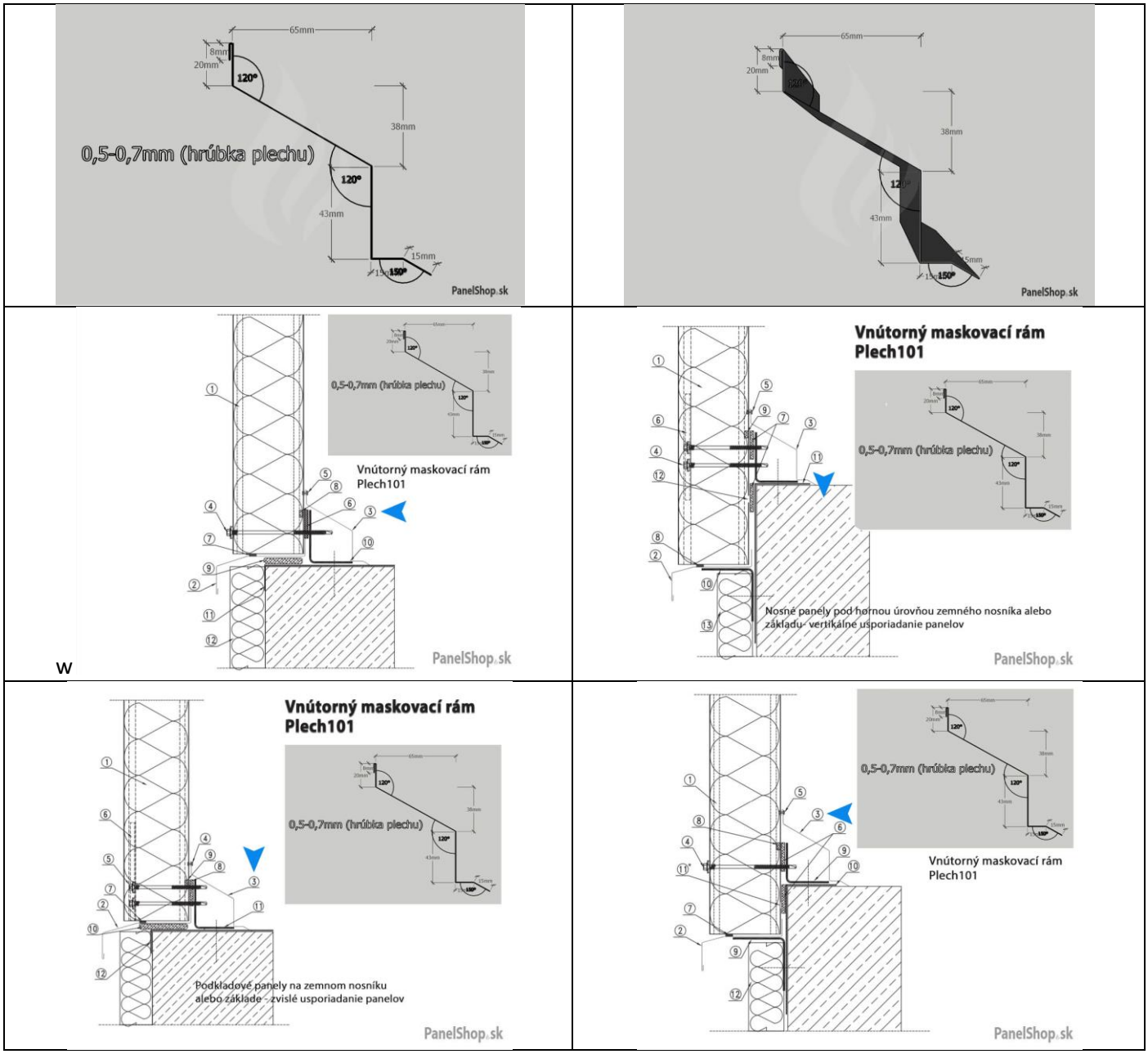




You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (09.1) Internal masking frame – Sheet metal_101

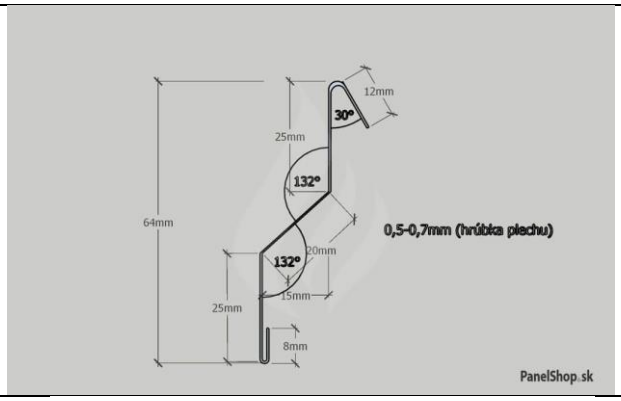
Product code: PO09_01_xxx

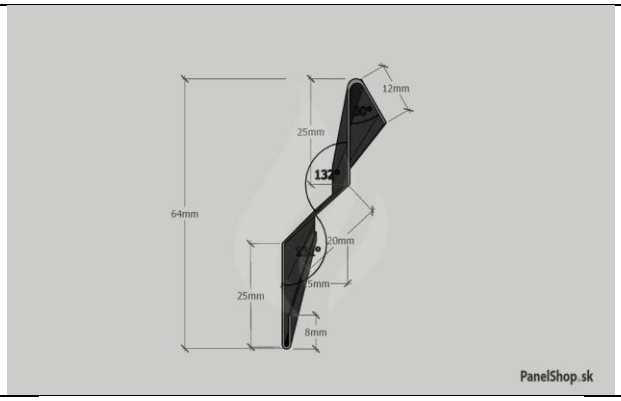


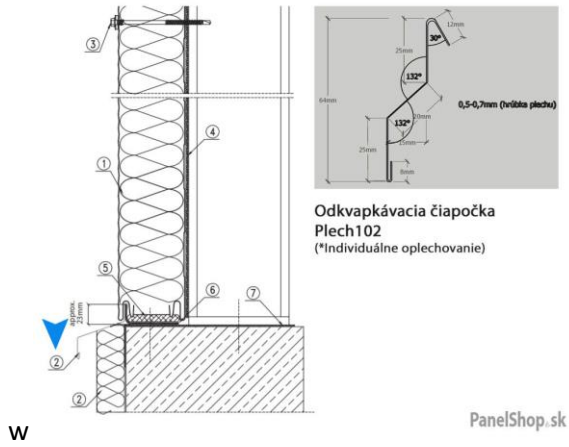
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing - (10.1) Drip cap - Sheet_102

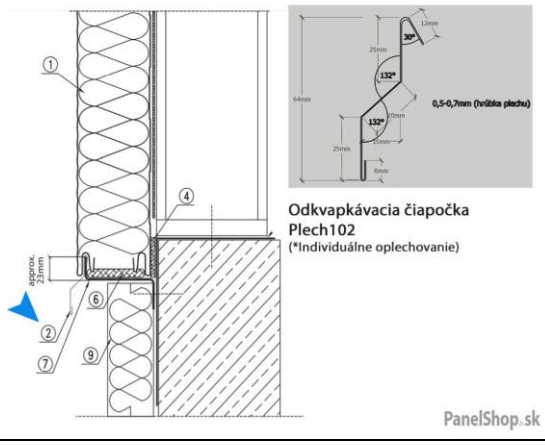
Product code: PO10_01_xxx







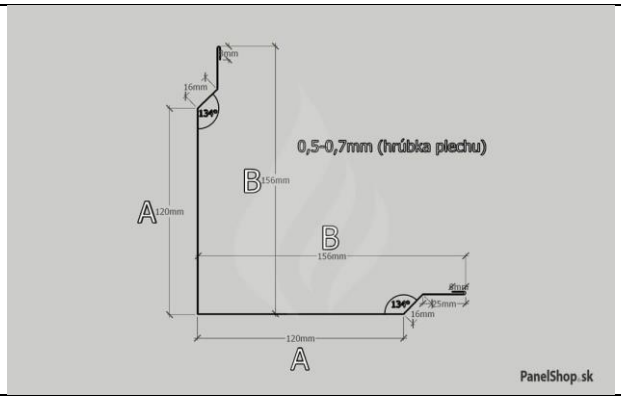
W

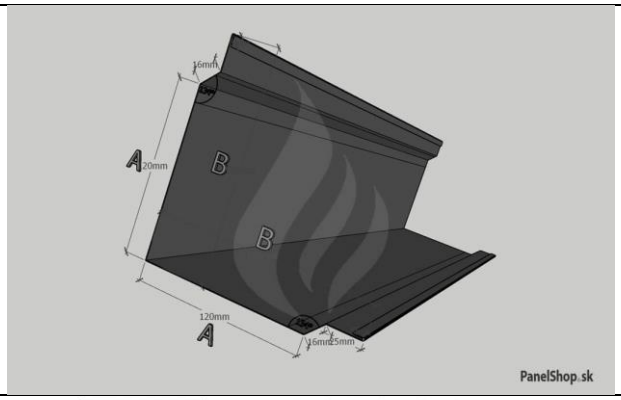


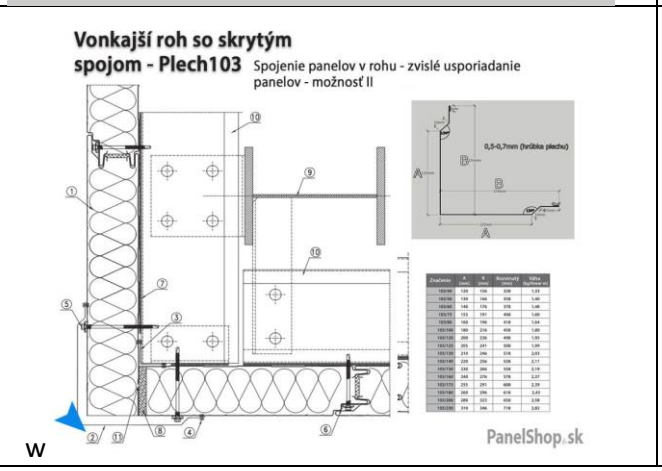
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

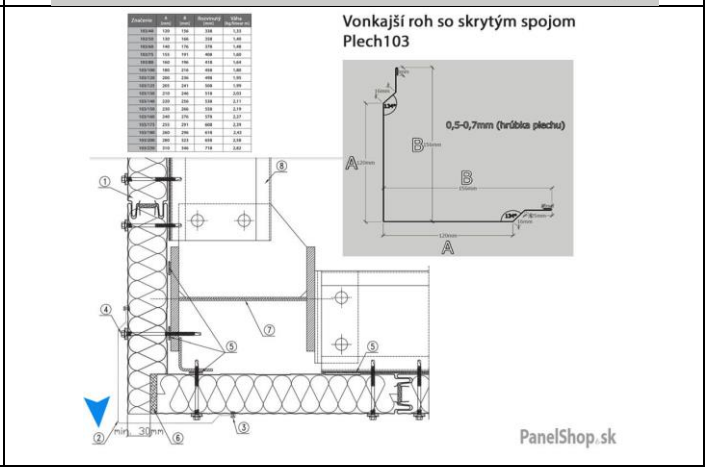
Flashing - (11.1) Outer corner with hidden joint - Sheet_103

Product code: PO11_01_xxx





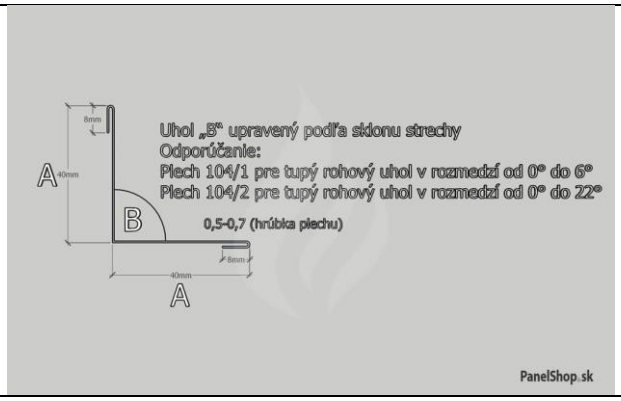


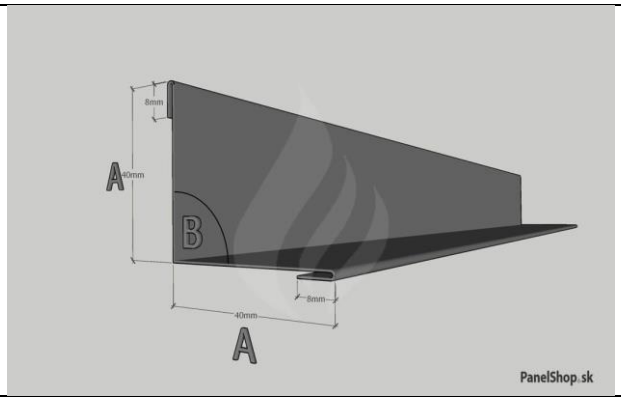


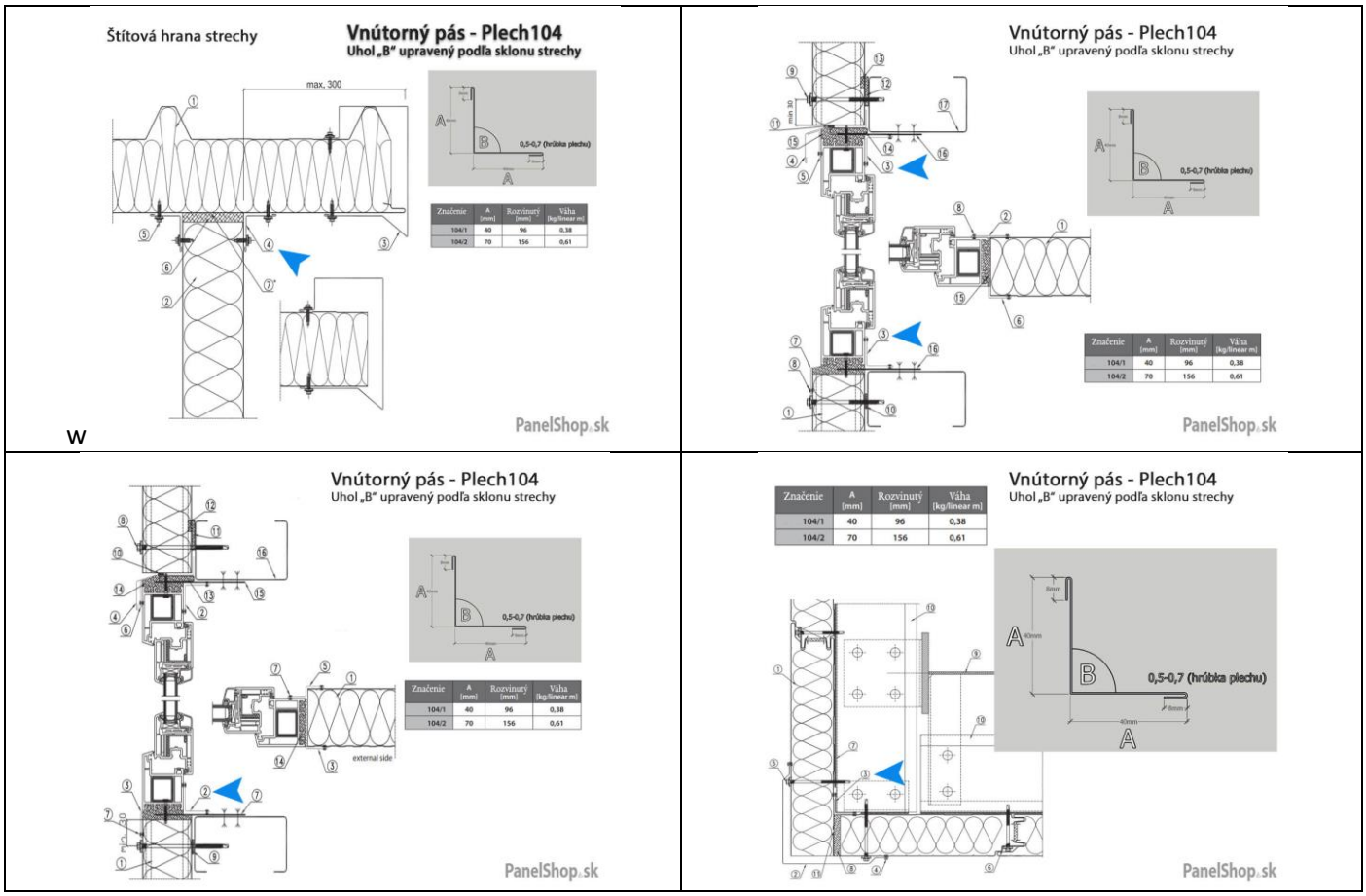
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (12.1) Inner strip – Sheet_104

Product code: PO12_01_xxx





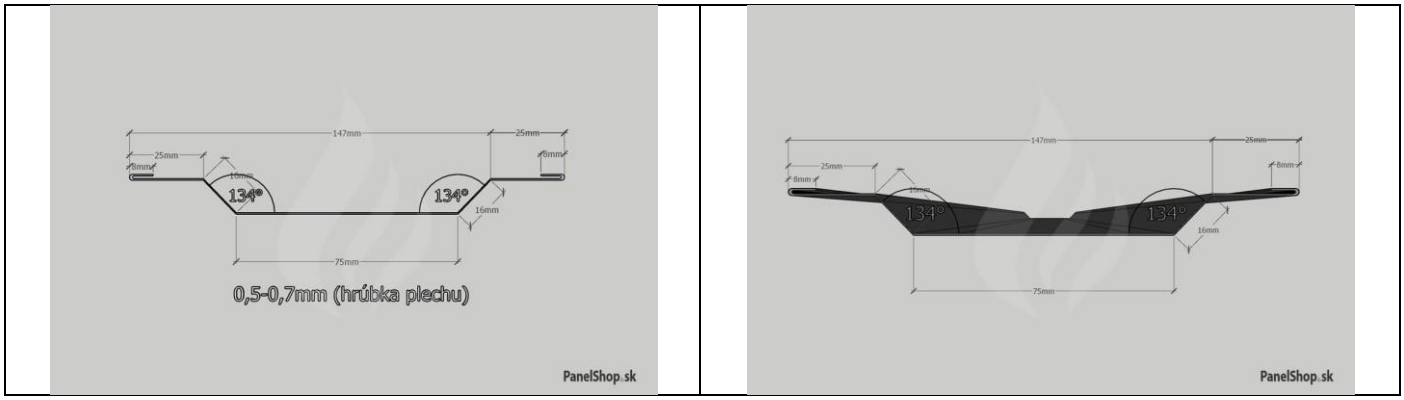


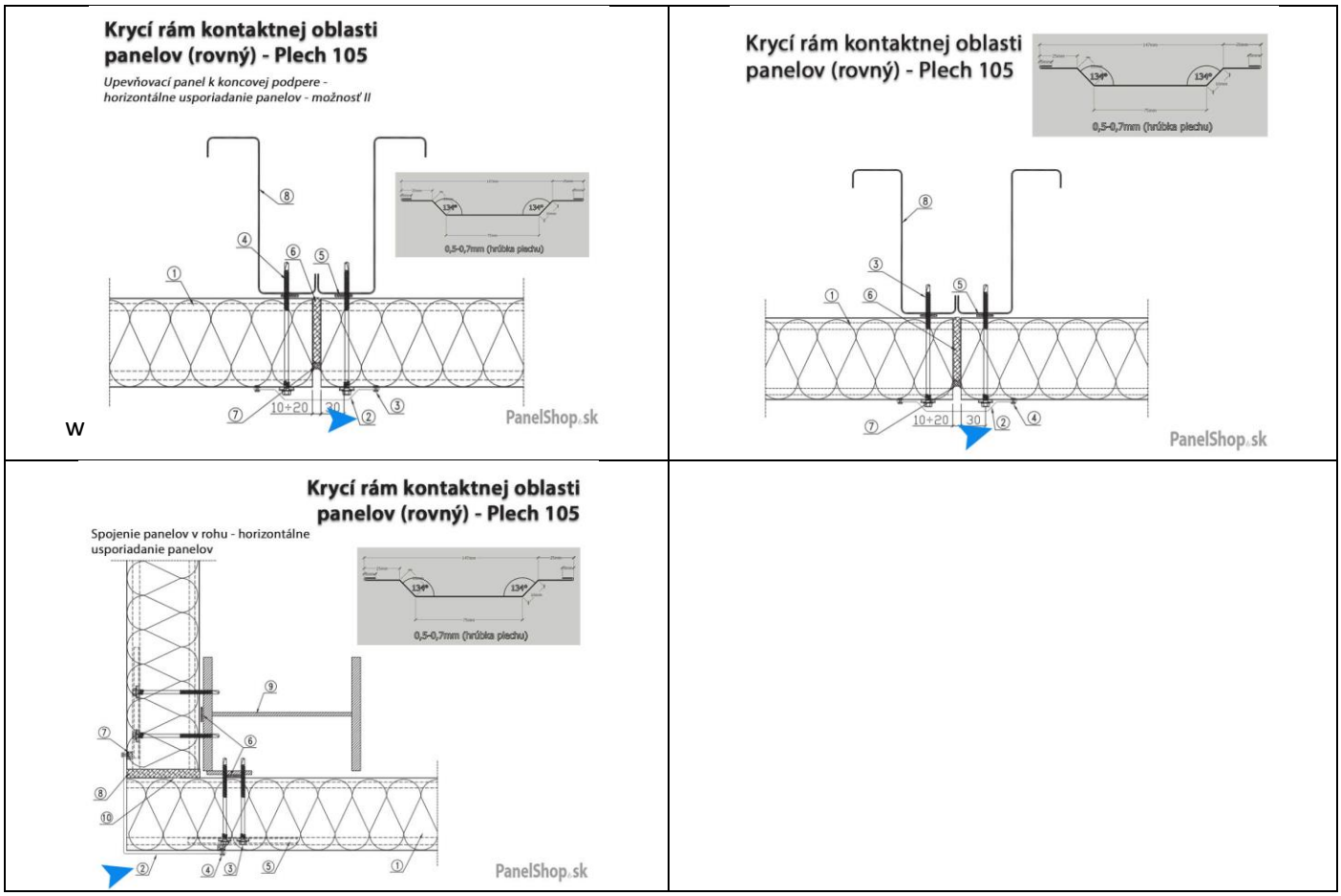
W

You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing - (13.1) Covering frame of the contact area of the panels straight - Sheet_105

Product code: PO13_01_xxx



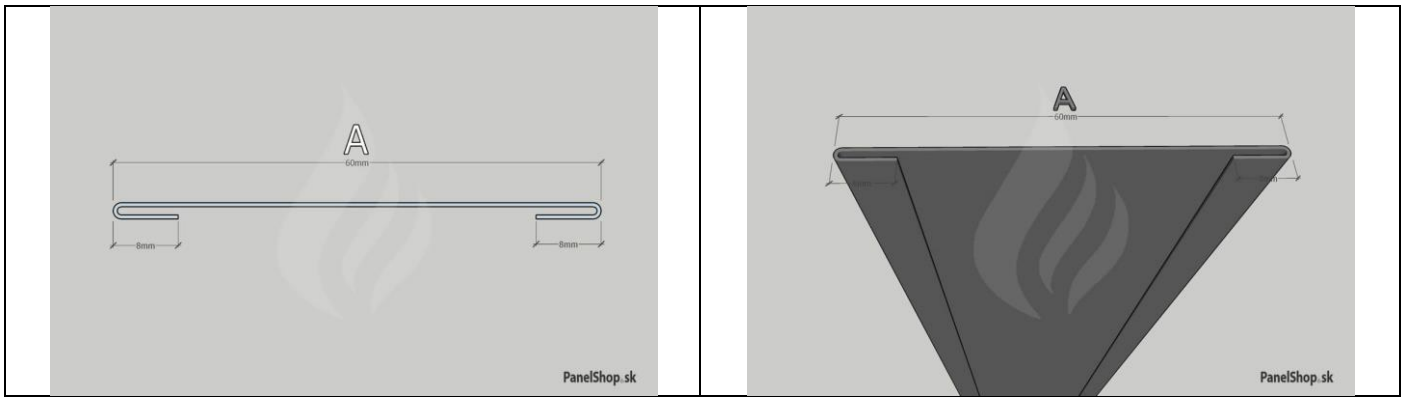


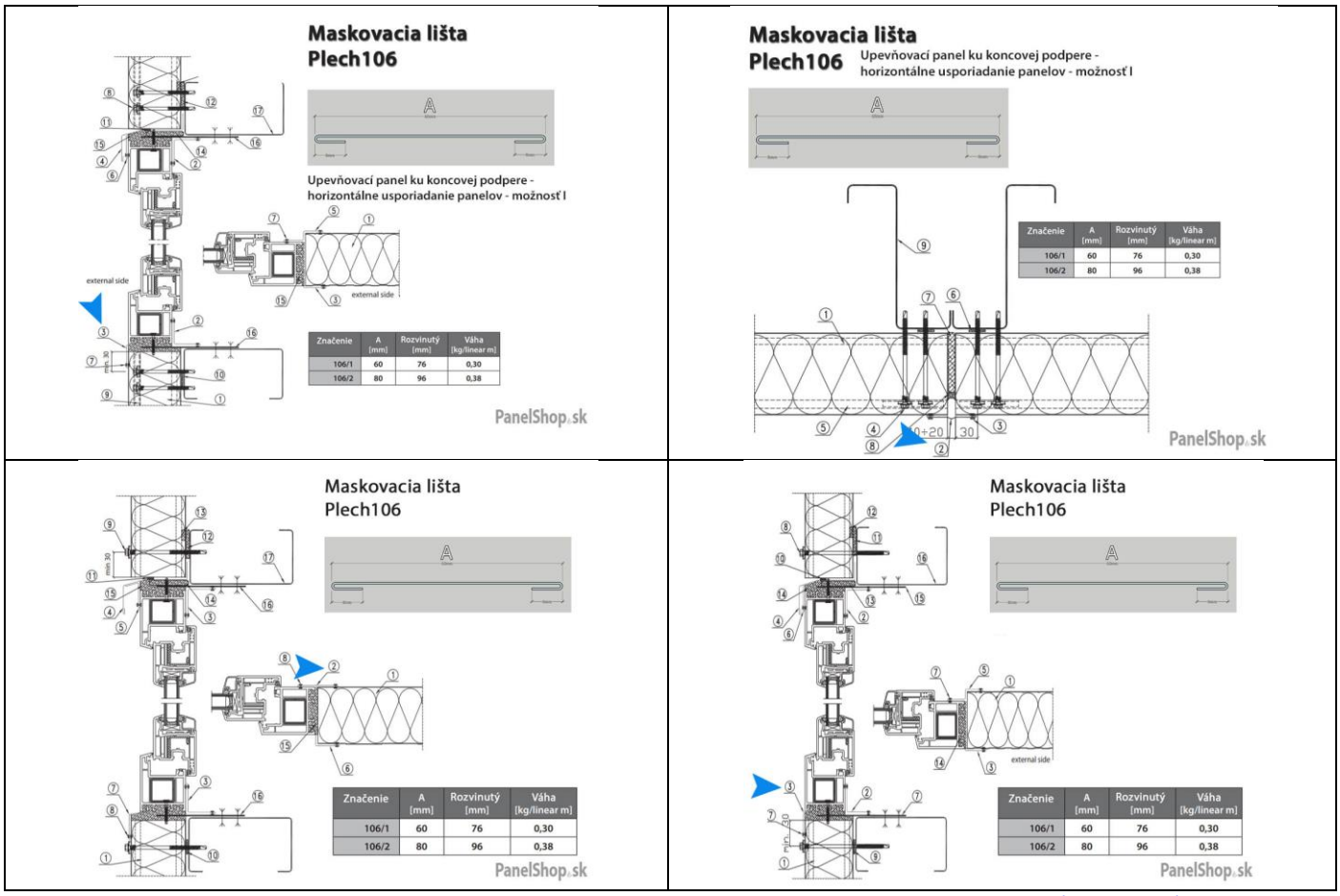
w

You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (14.1) Masking strip – Sheet_106

Product code: PO14_01_xxx

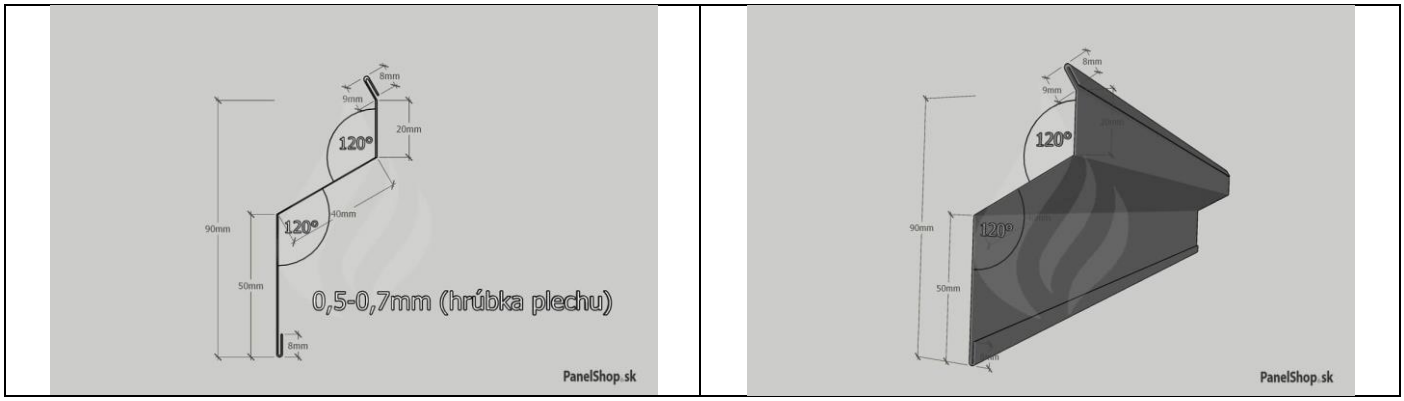


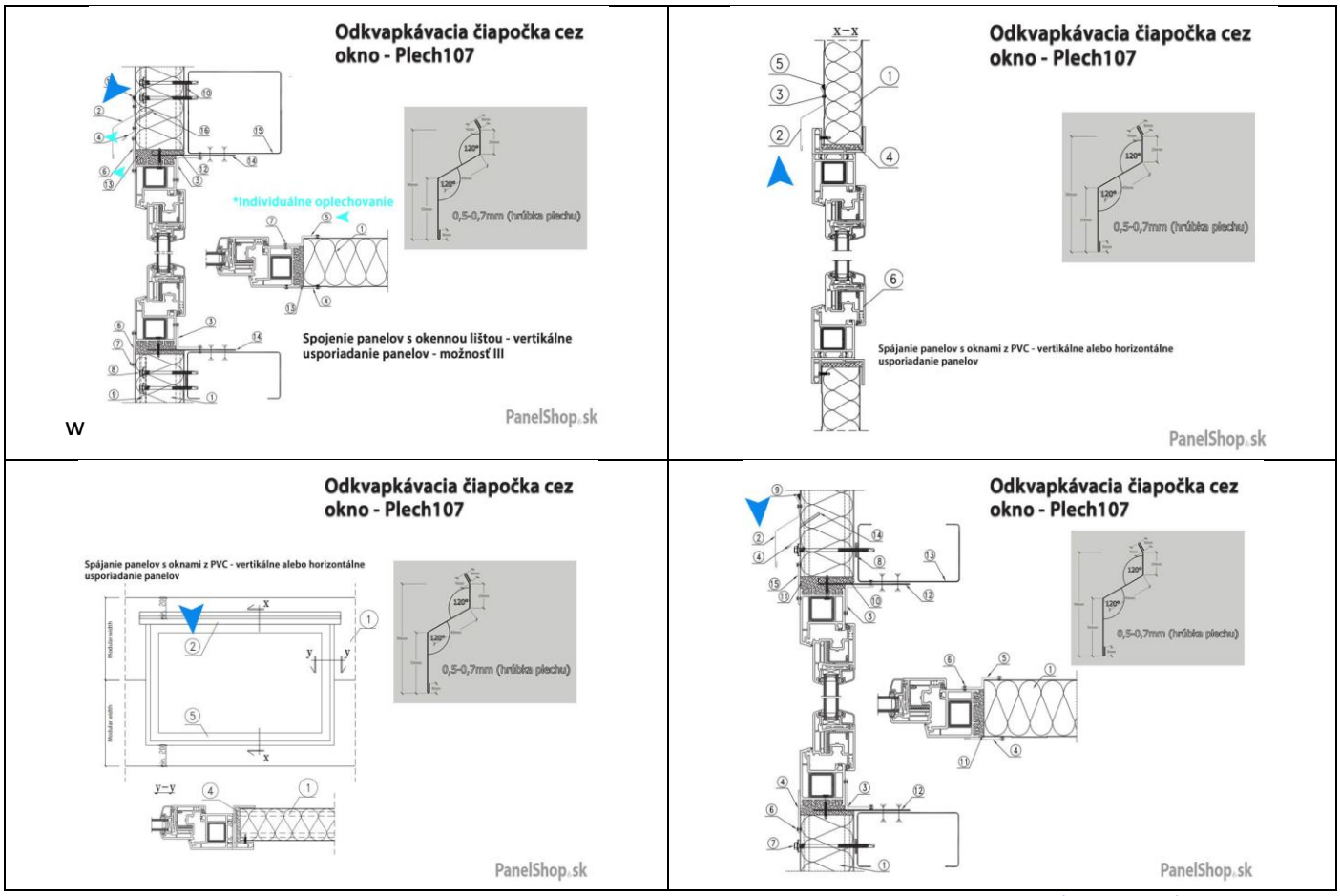


You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (15.1) Drip cap through the window – Sheet metal_107

Product code: PO15_01_xxx



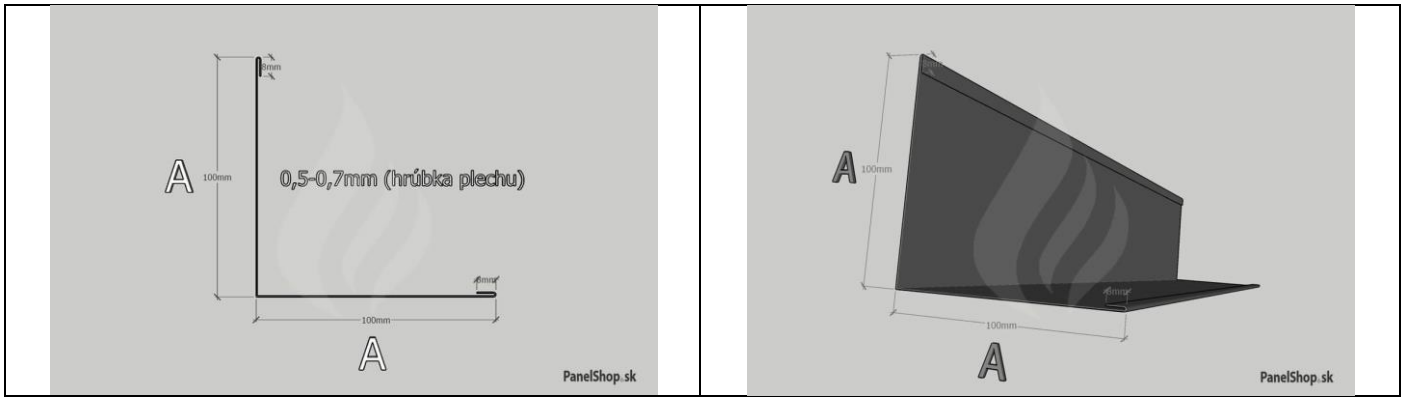


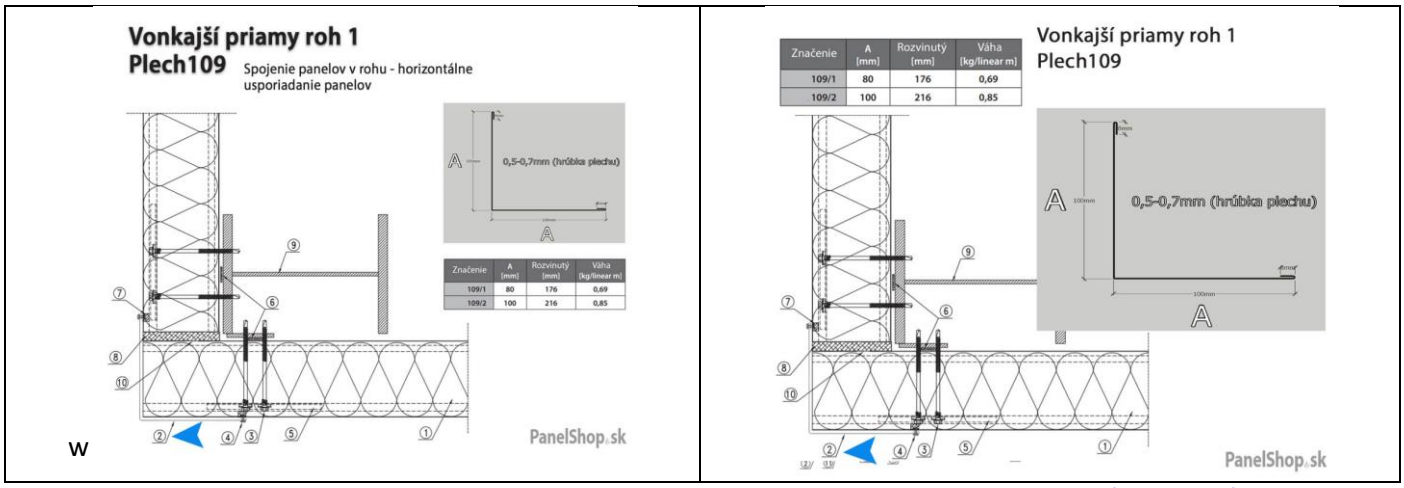
w

You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (16.1) External right corner – Sheet_109

Product code: PO16_01_xxx

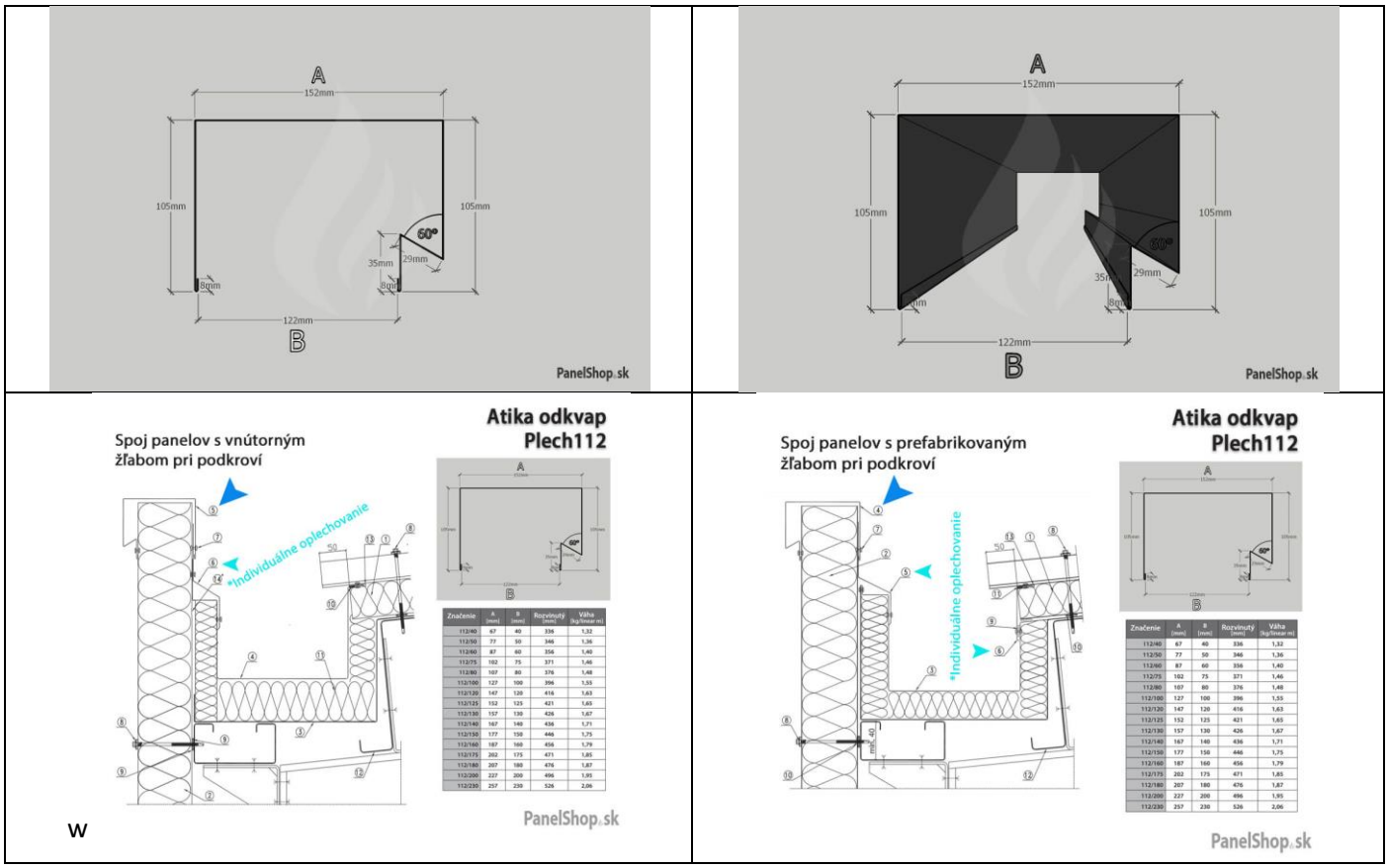




You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (17.1) Attic gutter – Plech_112

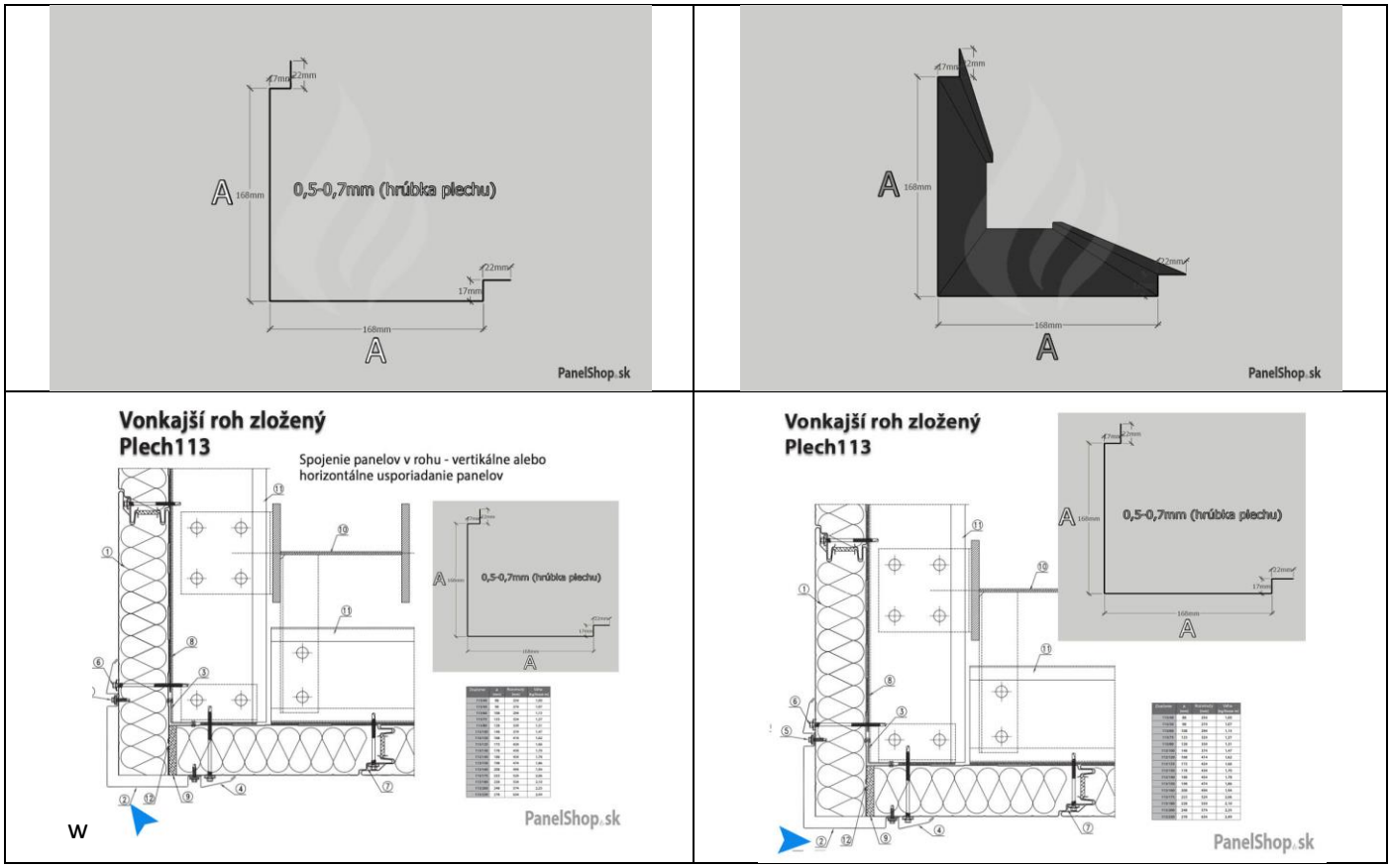
Product code: PO17_01_xxx



You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing - (18.1) Outer corner folded - Sheet_113

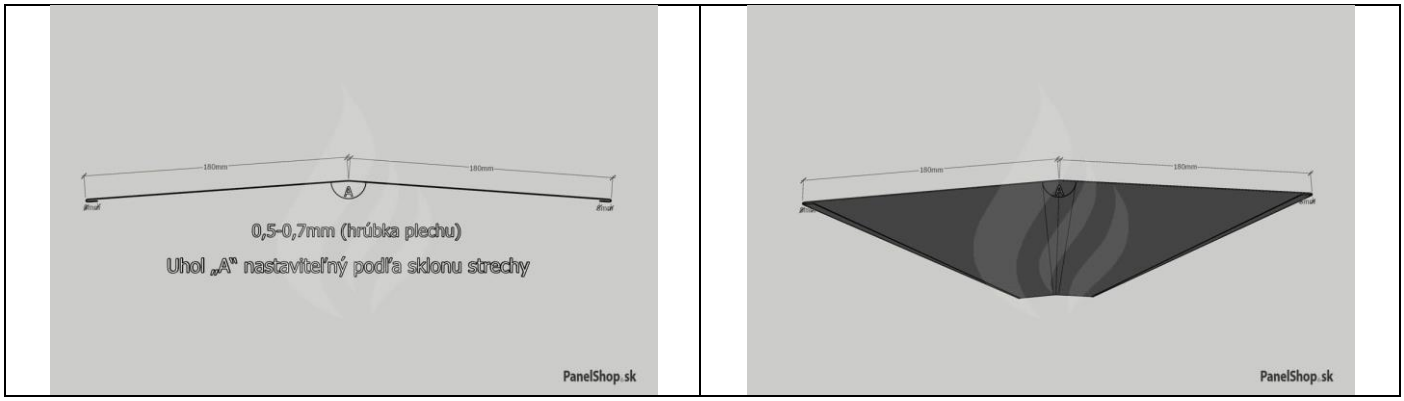
Product code: PO18_01_xxx

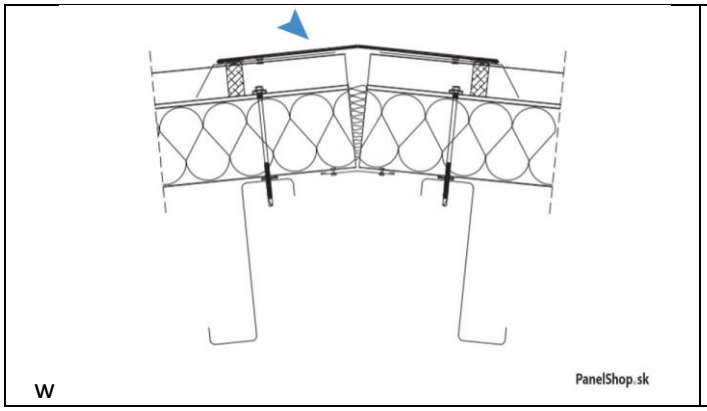


You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing– (19.1) Ridge of a flat external roof ridge cladding – Sheet metal_205

Product code: PO19_01_xxx



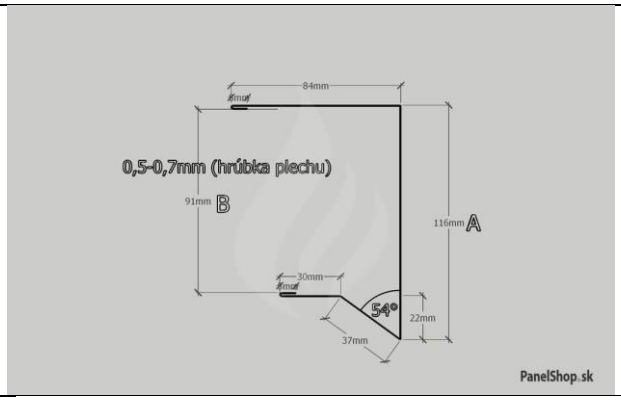


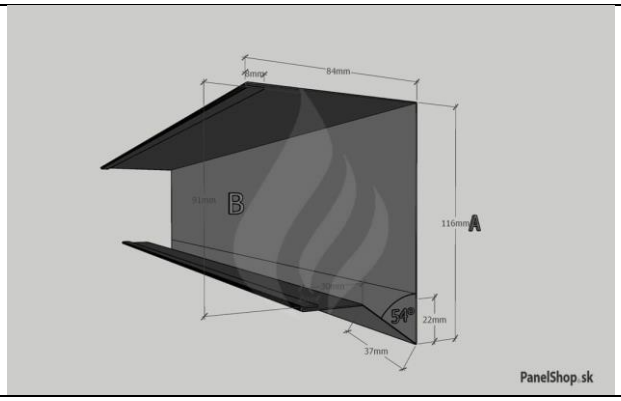
w

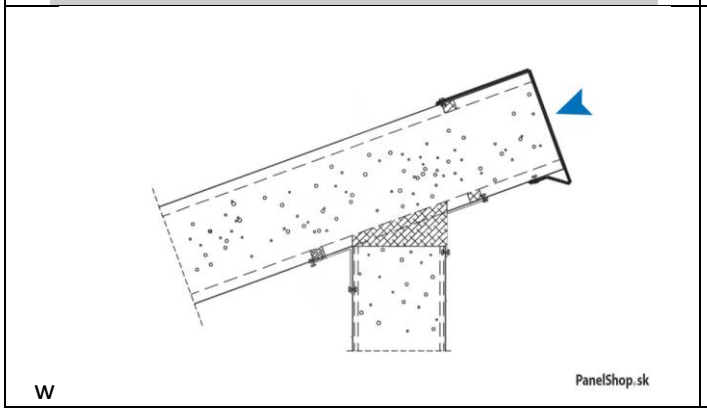
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing– (20.1) Masking frame of the comb – Sheet metal_53

Product code: PO20_01_xxx





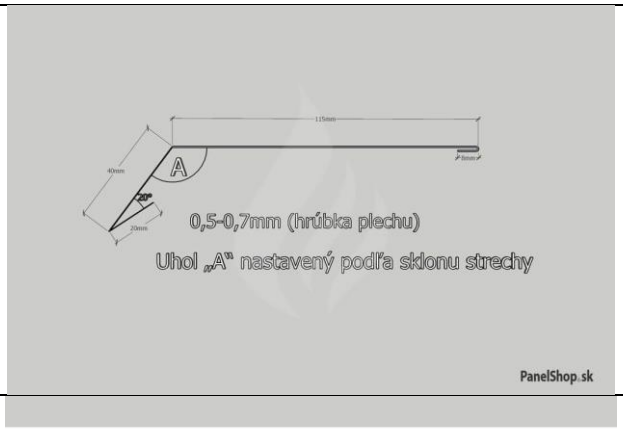


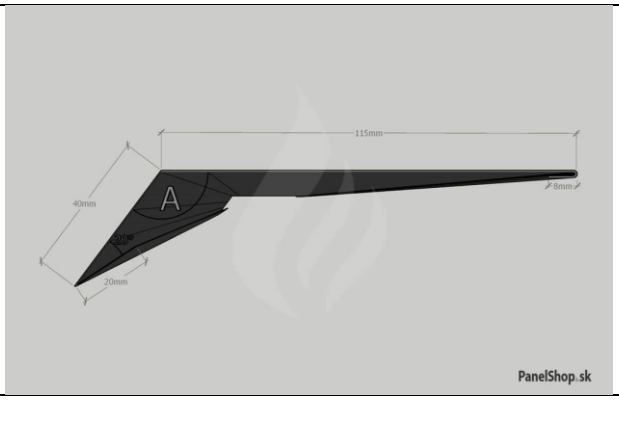
w

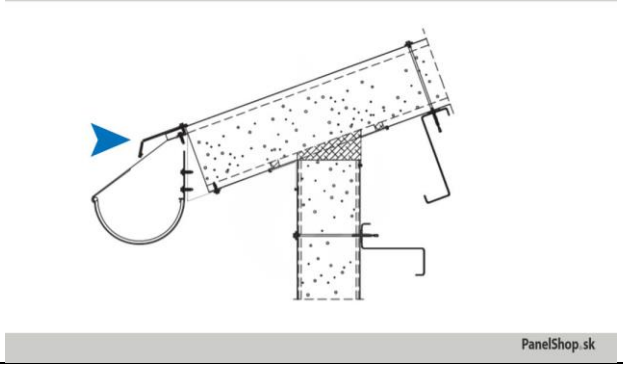
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing - (21.1) Drip cap above gutter - Sheet metal_54

Product code: PO21_01_XXX



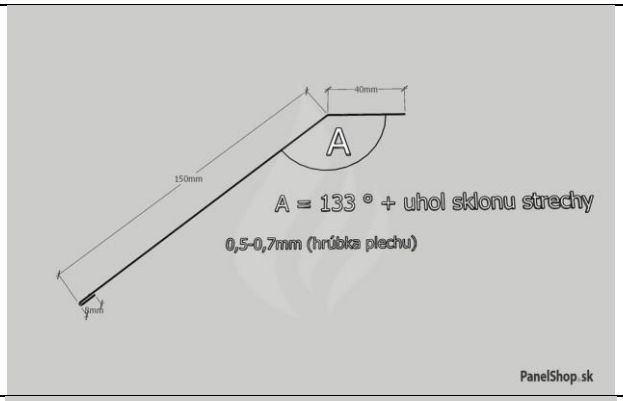


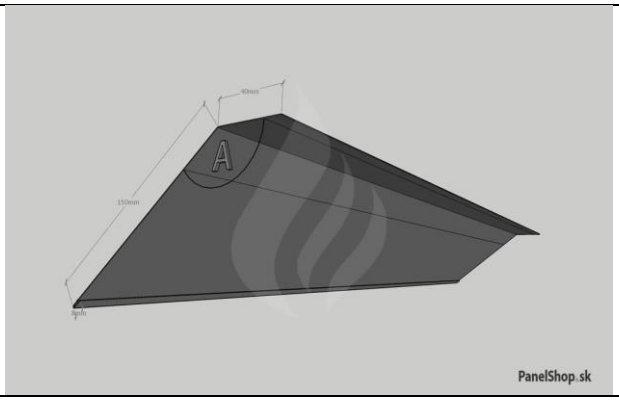


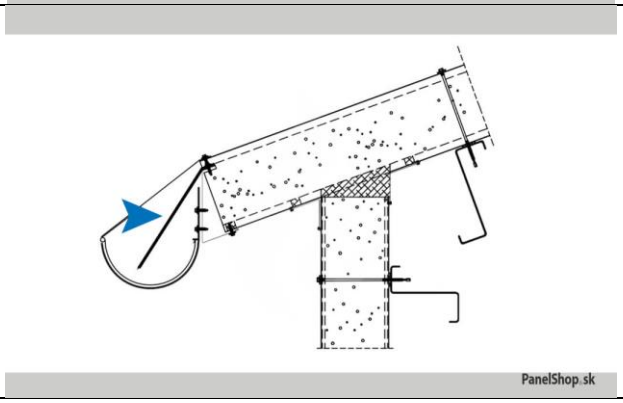
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (22.1) Gutter plating – Sheet_59

Product code: PO22_01_xxx



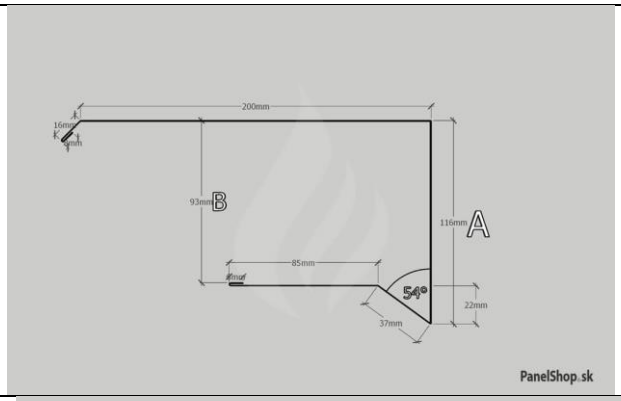


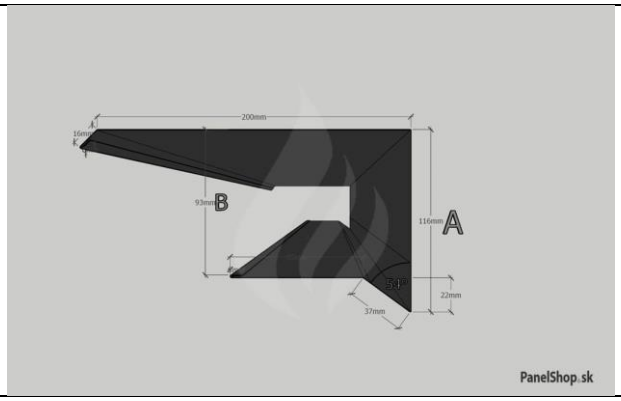


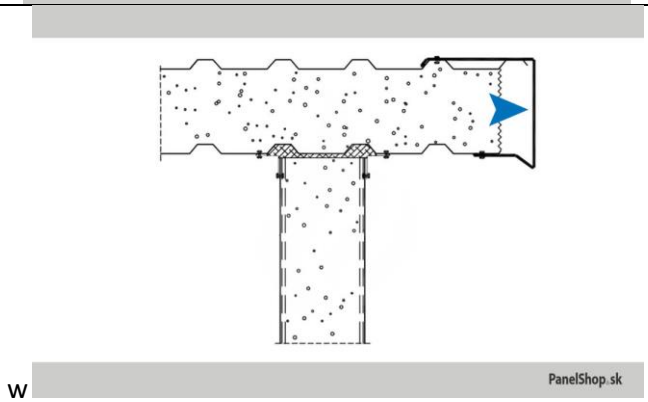
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (23.1) Wind blade – Sheet metal_60

Product code: PO23_01_xxx





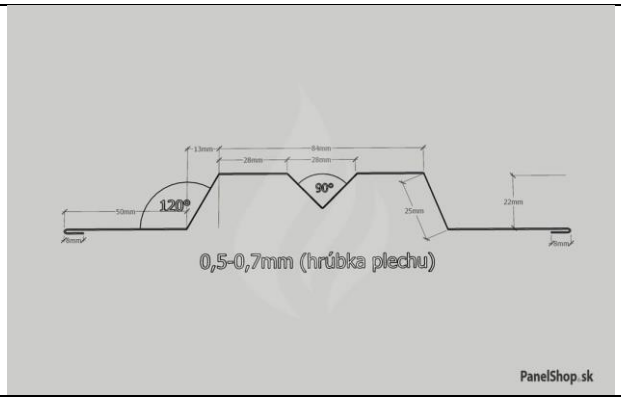


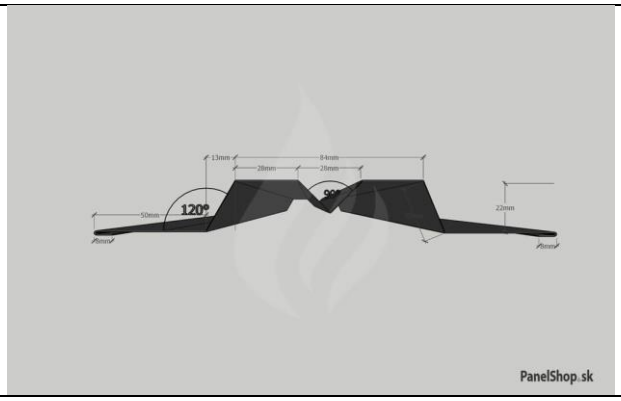
W

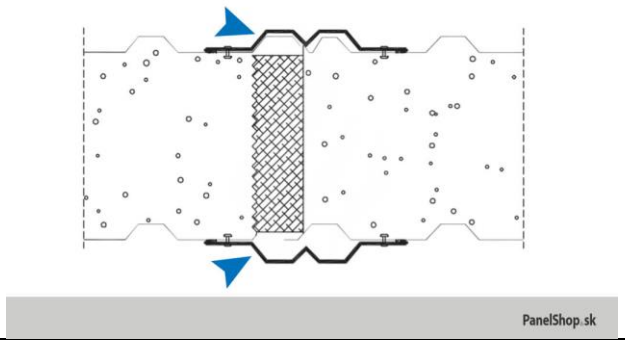
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing - (24.1) Roof expansion joint - Sheet metal_64

Product code: PO24_01_xxx



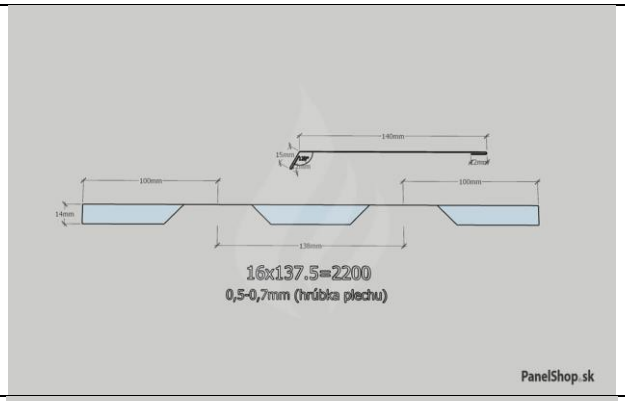


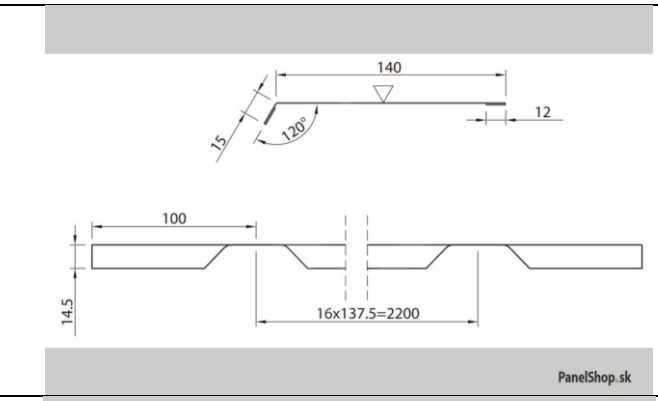


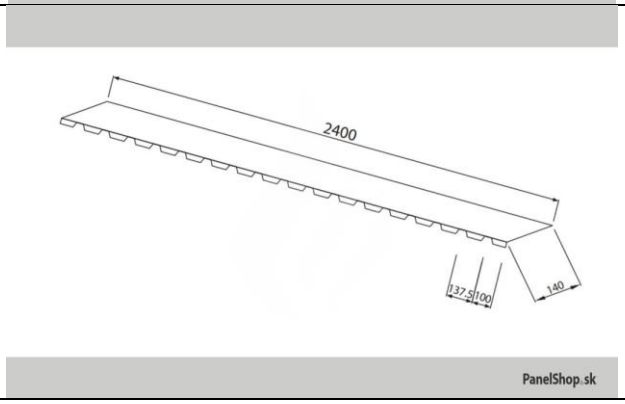
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

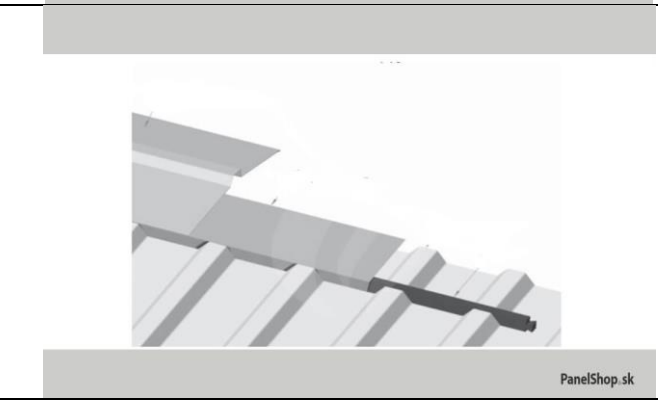
Flashing – (25.1) Roof ridge strip – Sheet_65

Product code: PO25_01_xxx





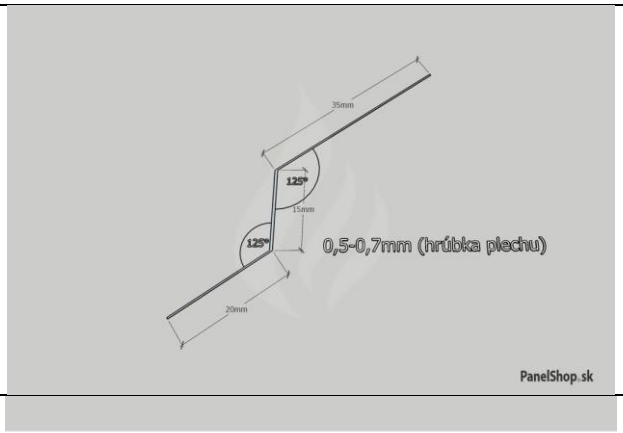


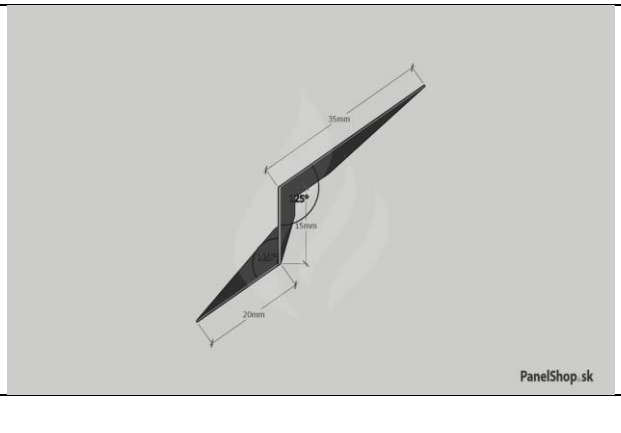


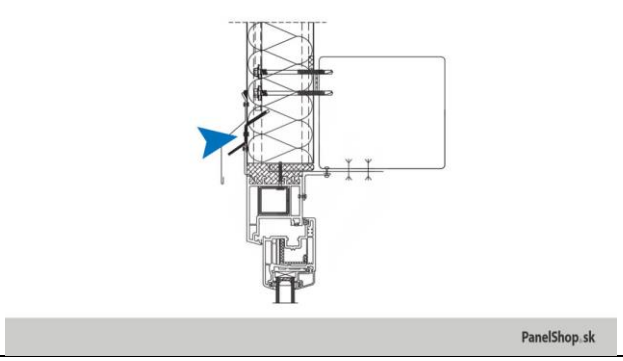
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (26.1) Drip through the window lock seal – Sheet metal_108

Product code: PO26_01_xxx



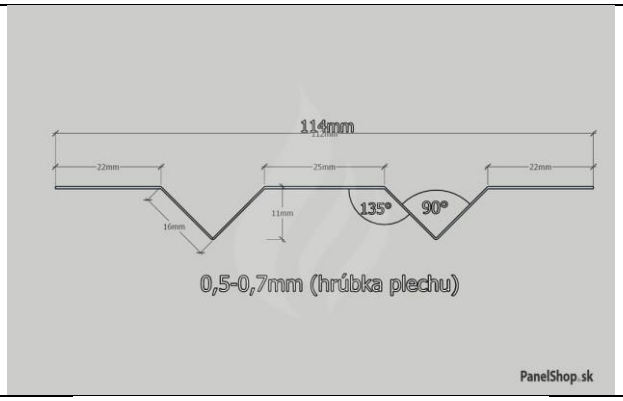


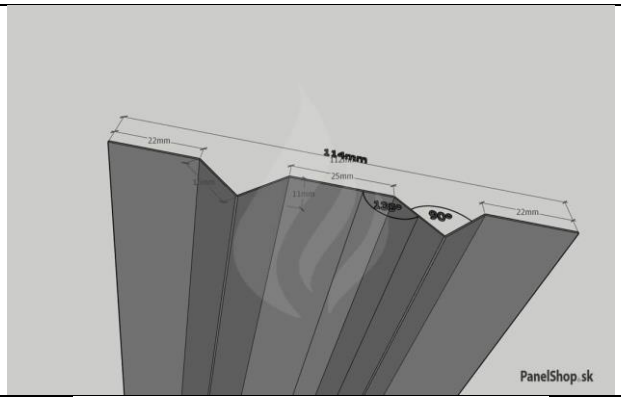


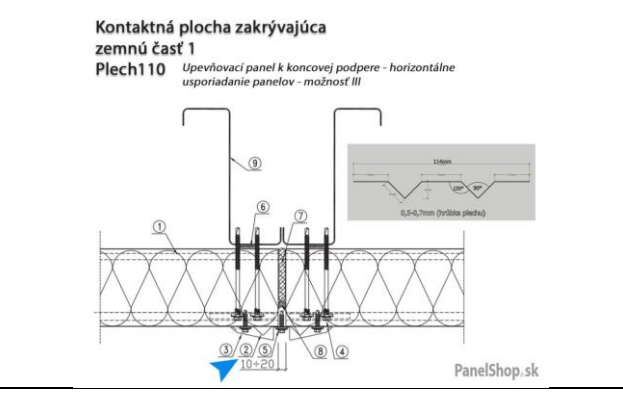
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

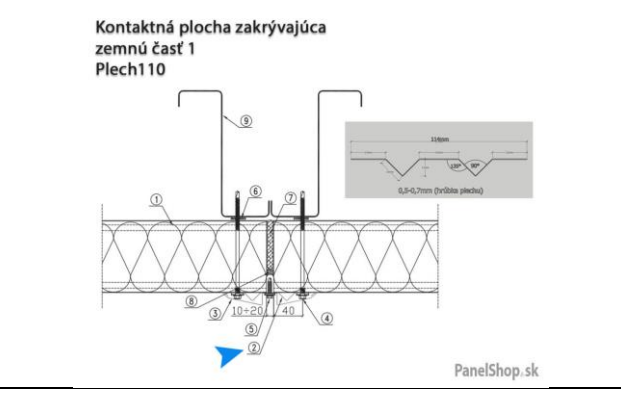
Flashing – (27.1) Contact surface covering the ground part – Sheet_110

Product code: PO27_01_xxx





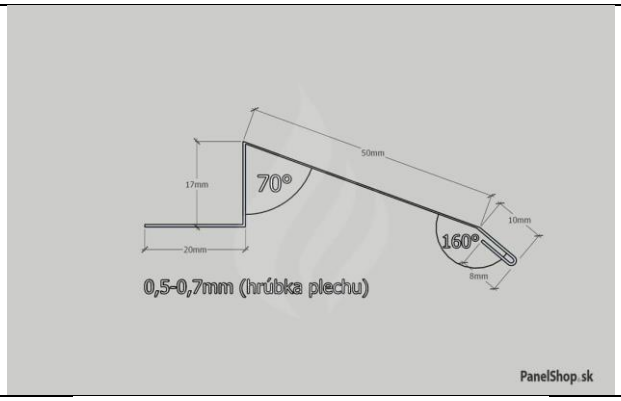


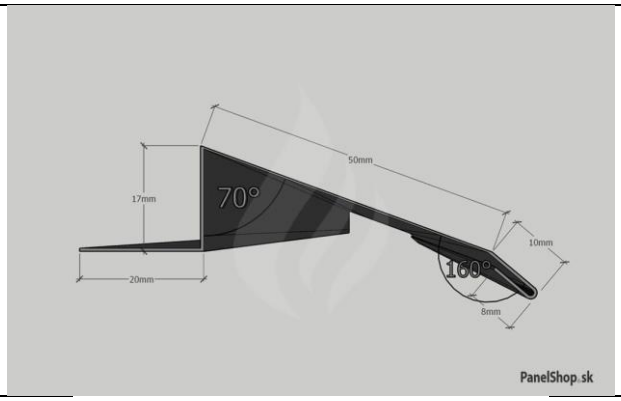


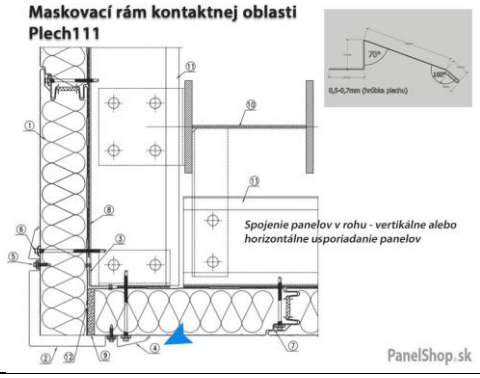
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

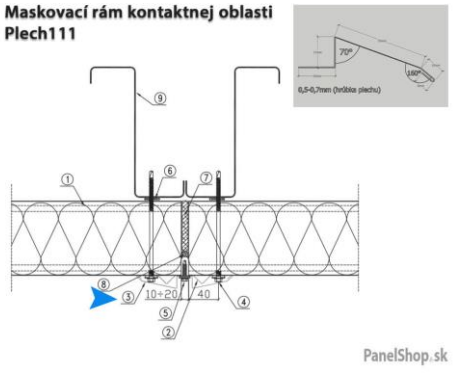
Flashing – (28.1) Masking frame of the contact area – Sheet metal_111

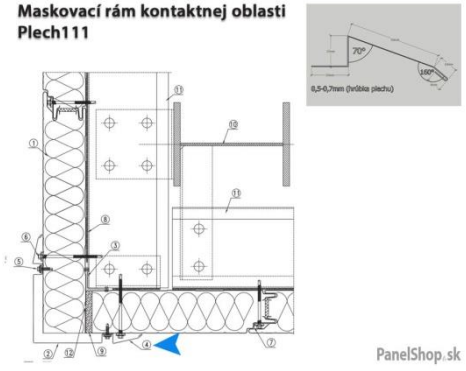
Product code: PO28_01_xxx







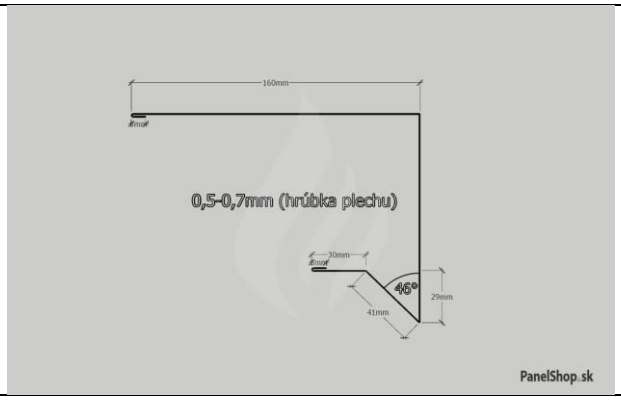


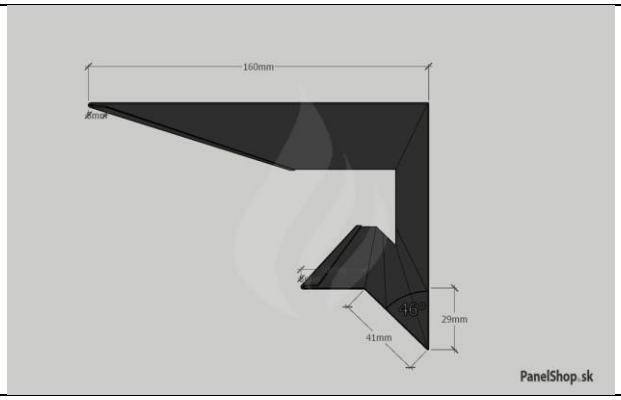


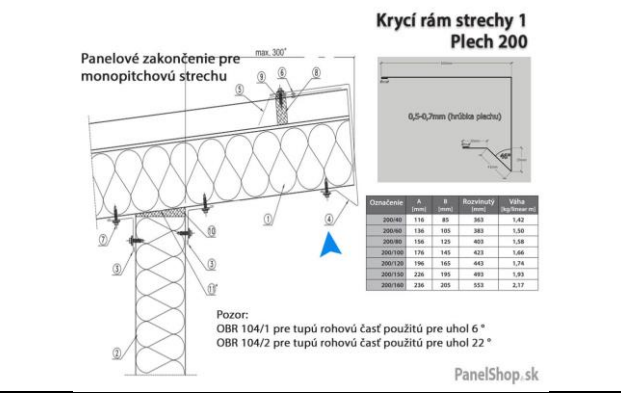
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (29.1) Roof covering frame – Sheet_200

Product code: PO29_01_xxx



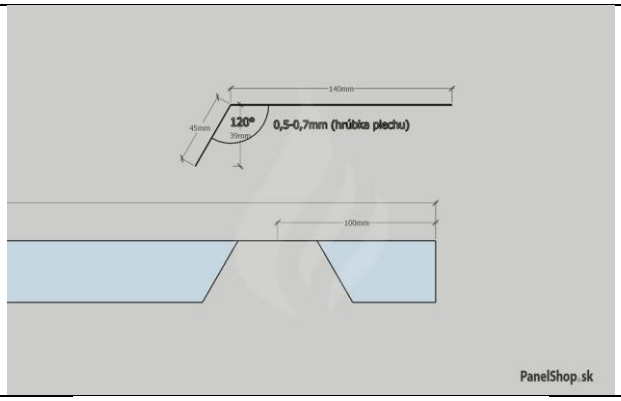


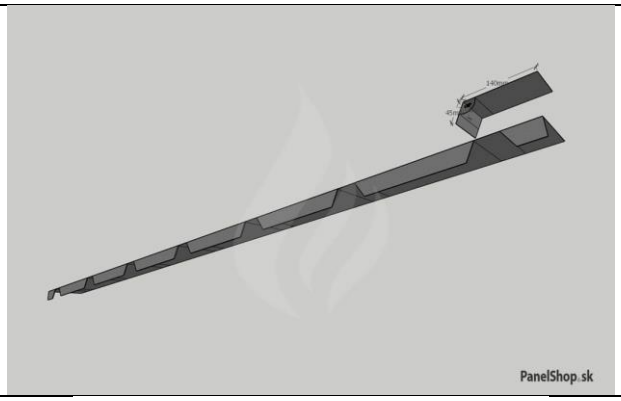


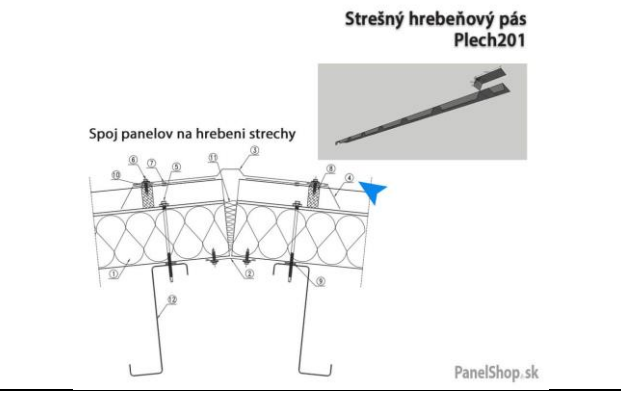
Ponúkané všetky varianty a kvalitnejšie vizualizácie umiestnenia nájdete na www.panelshop.sk/prislusenstvo/

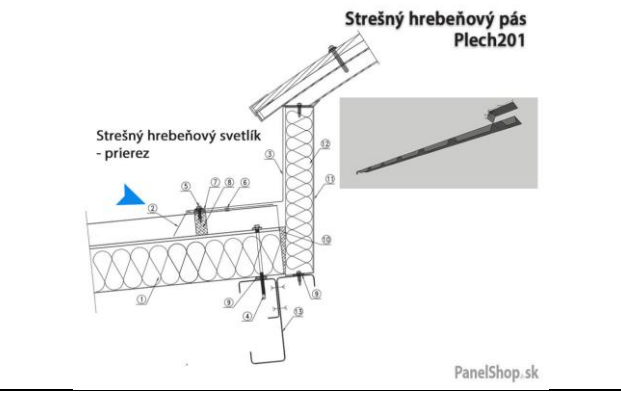
Flashing - (30.1) Roof ridge strip - Sheet_201

Product code: PO30_01_xxx





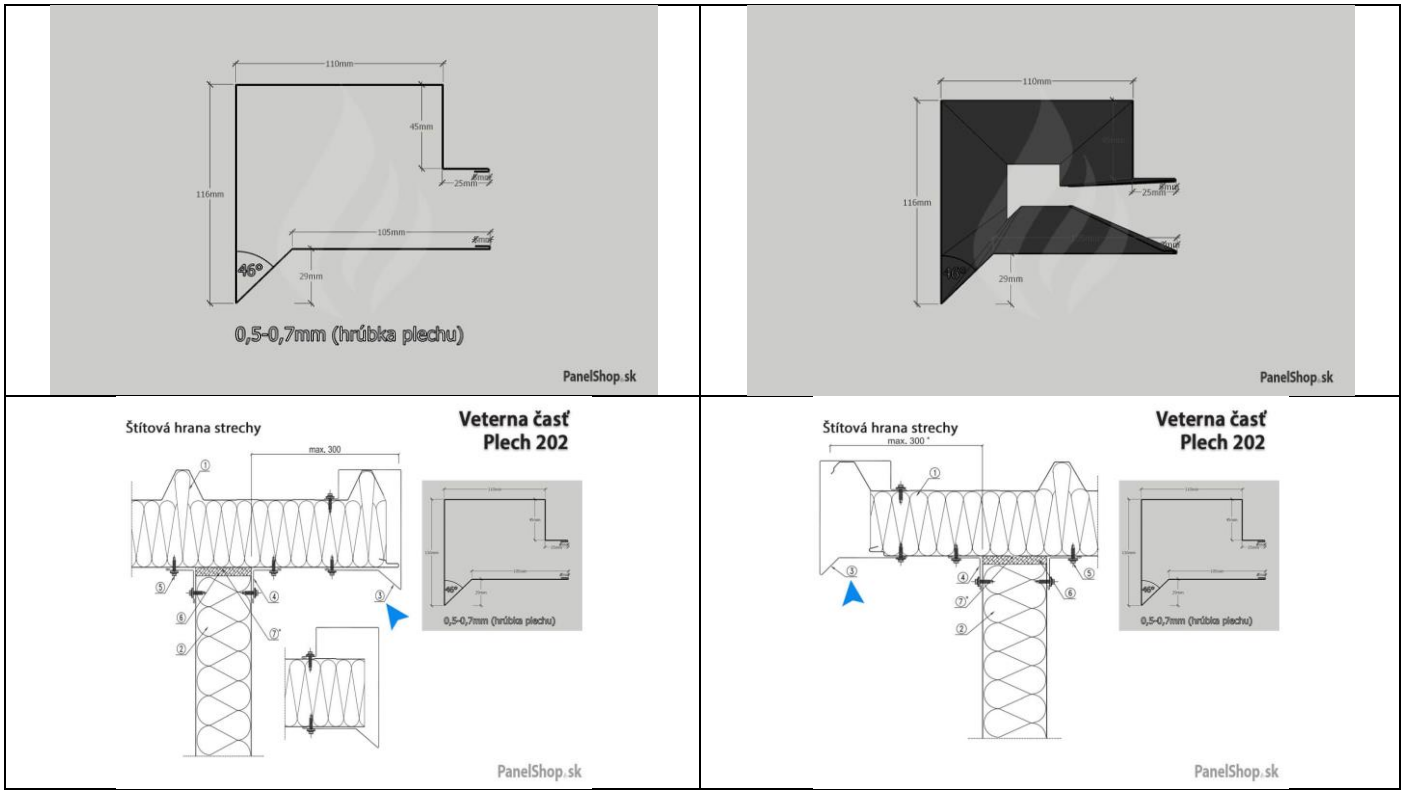




You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing– (31.1) Wind part – Sheet metal_202

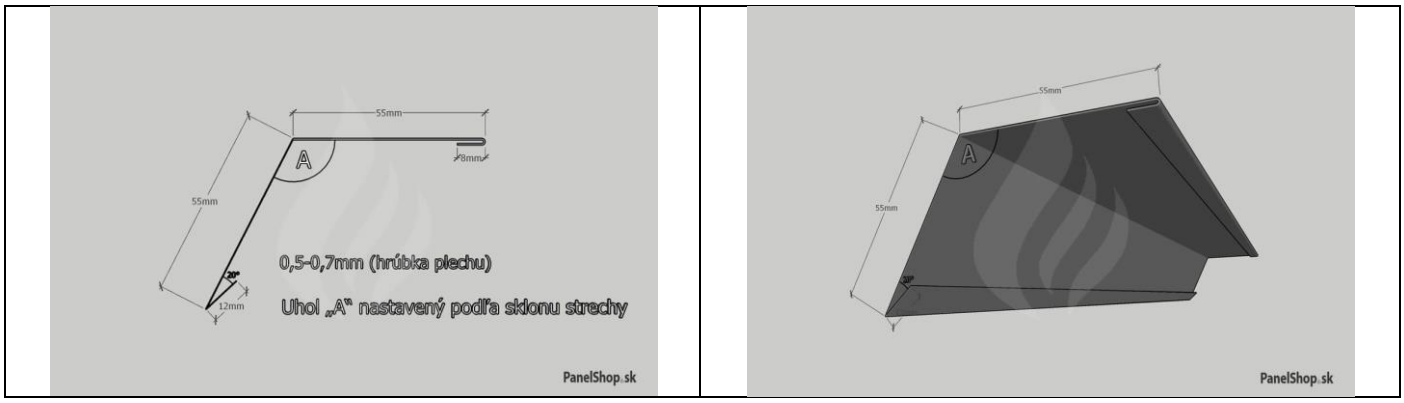
Product code: PO31_01_xxx

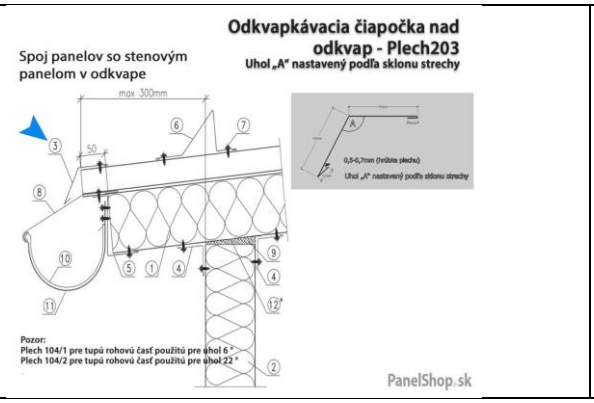


You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing - (32.1) Drip cap above gutter - Sheet metal_203

Product code: PO32_01_xxx

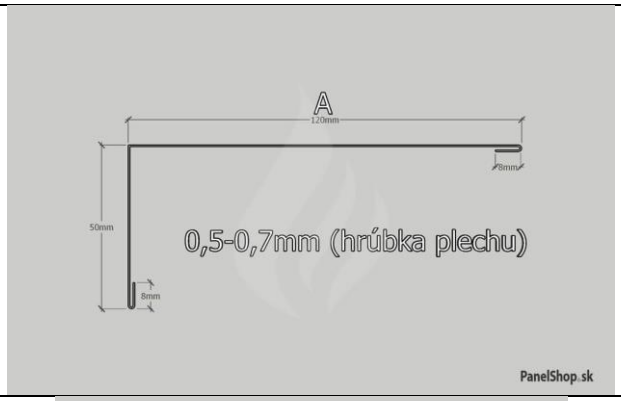


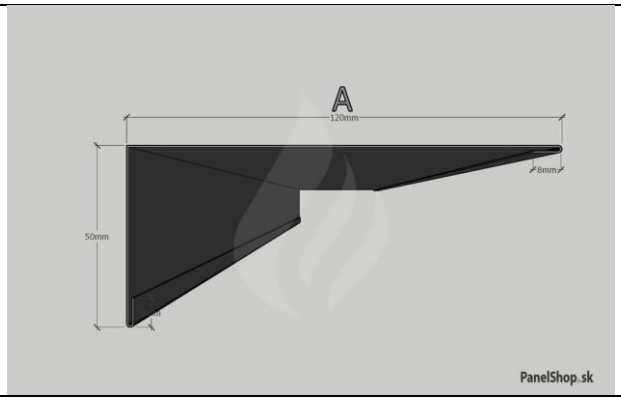


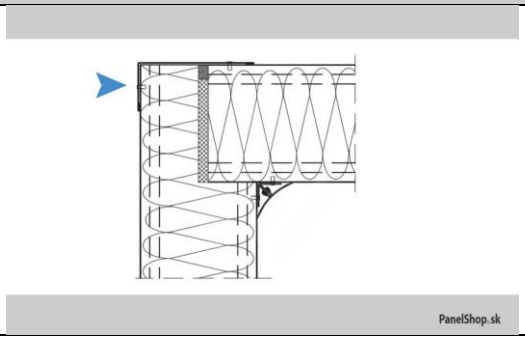
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (33.1) Outer corner – Sheet metal_301

Product code: PO33_01_xxx



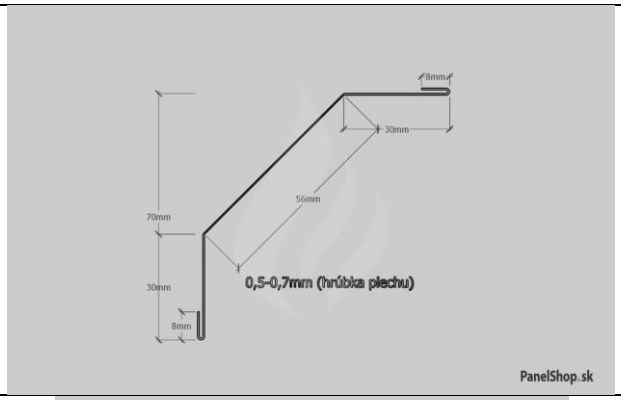


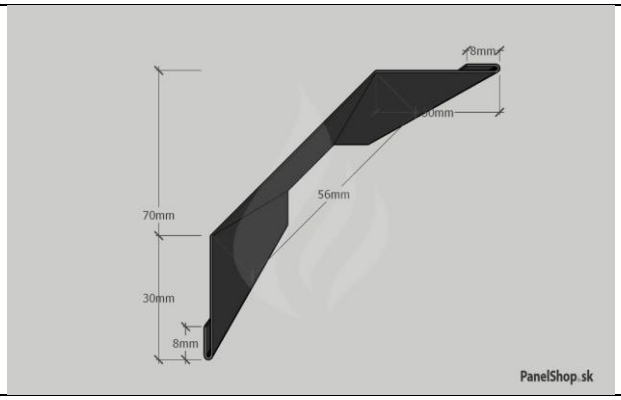


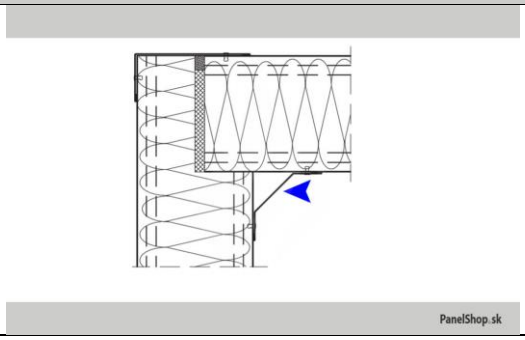
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (34.1) Internal oblique corner – Sheet_302

Product code: PO34_01_xxx



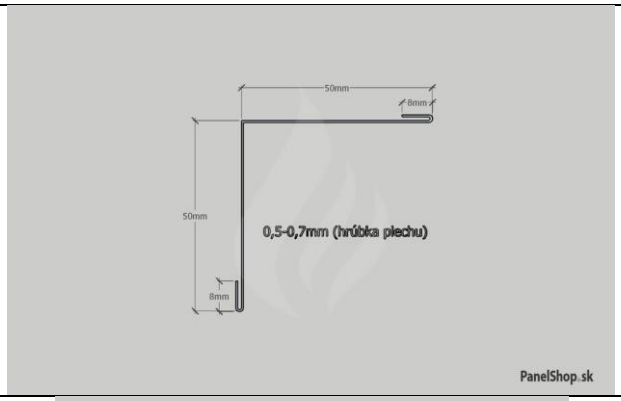


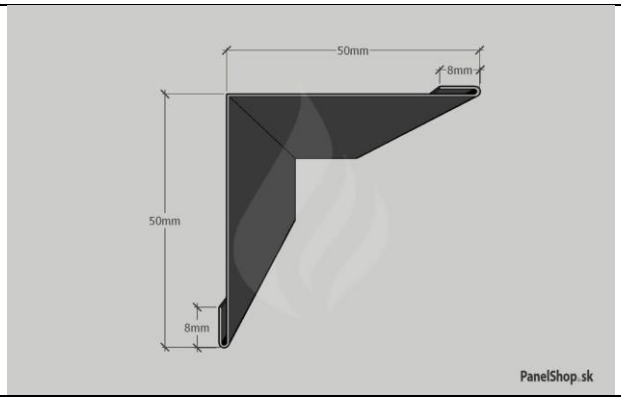


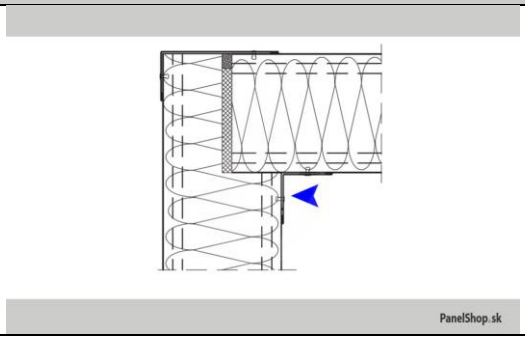
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (35.1) Straight inner corner – Sheet metal_303

Product code: PO35_01_xxx



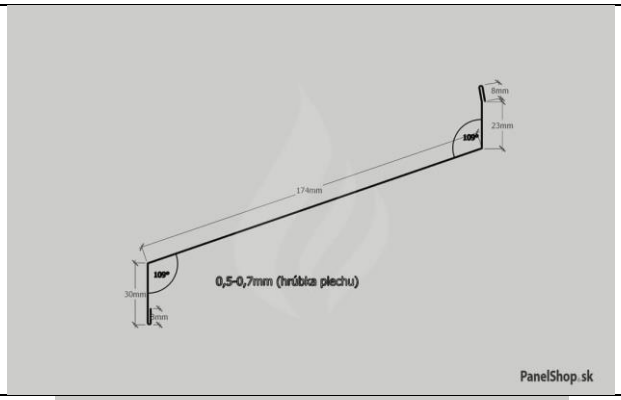


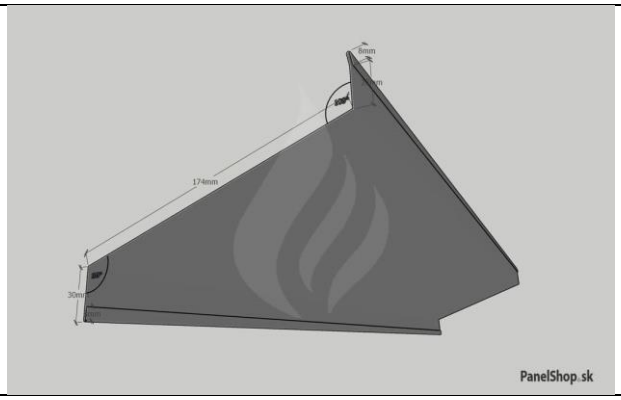


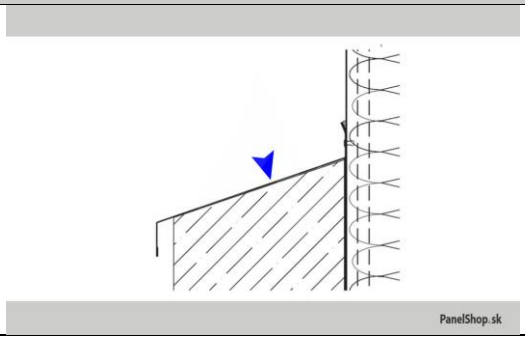
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing – (36.1) Drip cap – Sheet_304

Product code: PO36_01_xxx



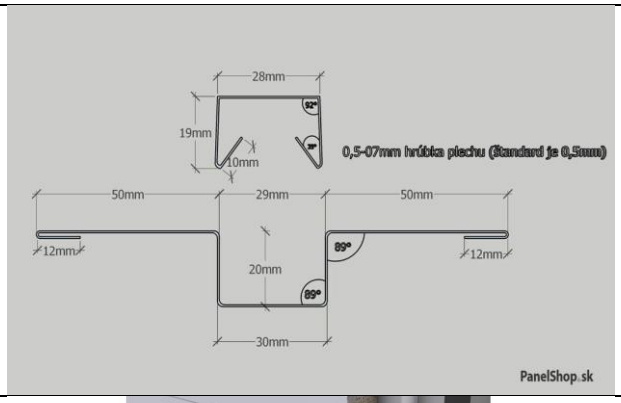


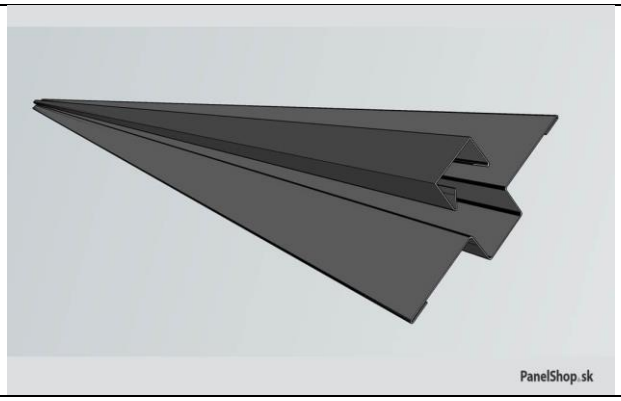


You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Flashing - (37.1) Vertical joint - Sheet metal_D01

Product code: PO37_01_xxx

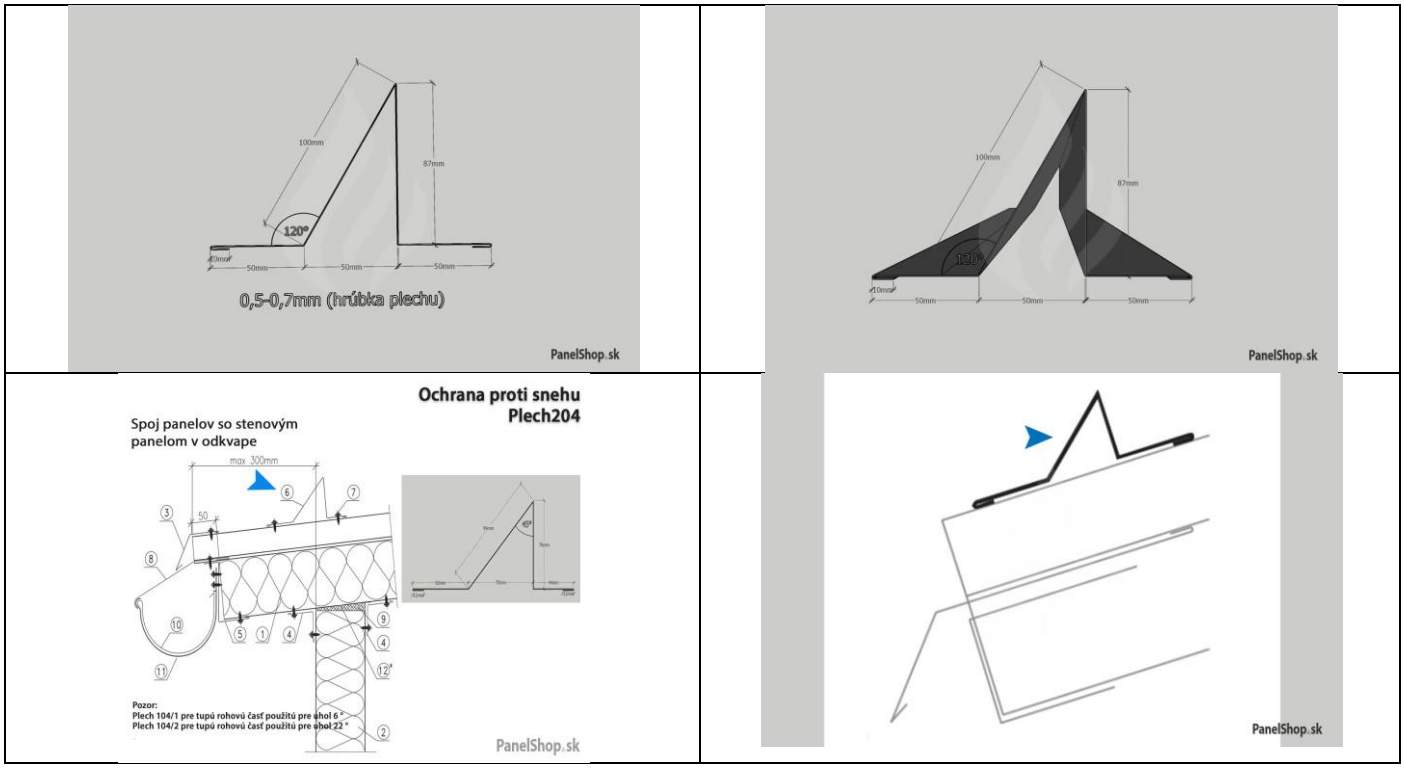




You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Snow protection (38.1) – Sheet_204

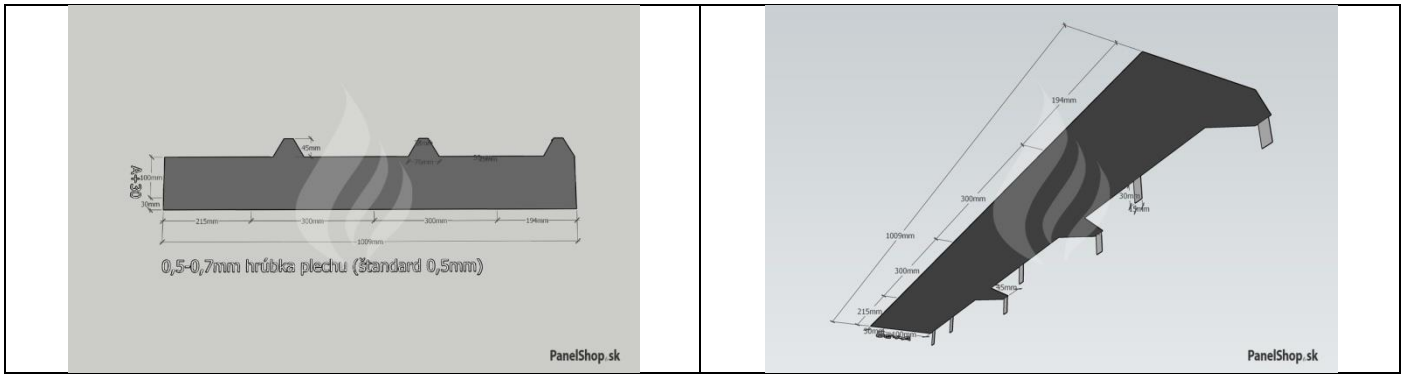
Product code: PO38_01_xxx



You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Completion of the panel in the gutter with edging (39.1) – Sheet_206

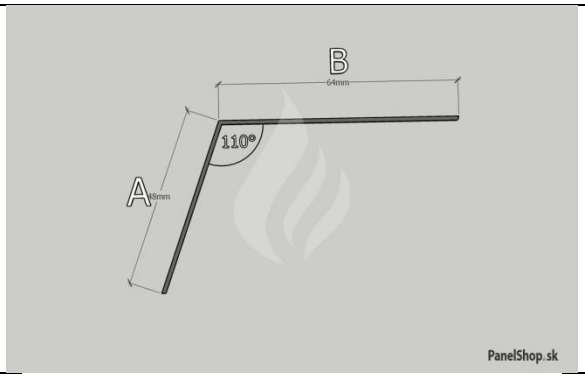
Product code: PO39_01_xxx

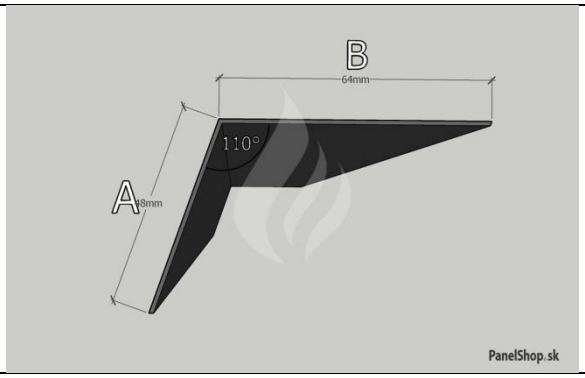


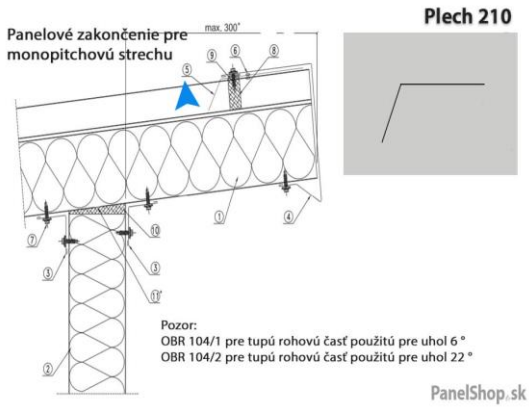
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Additional roof (40.1) – Sheet_210

Product code: PO40_01_xxx



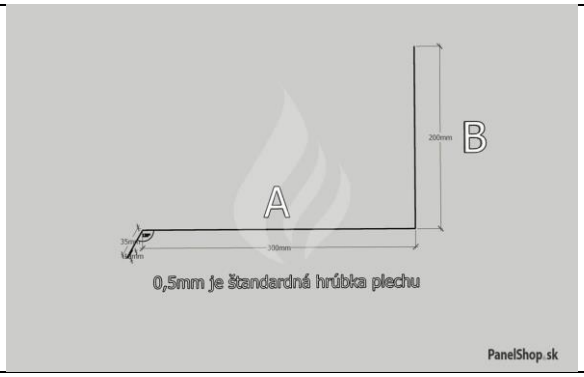


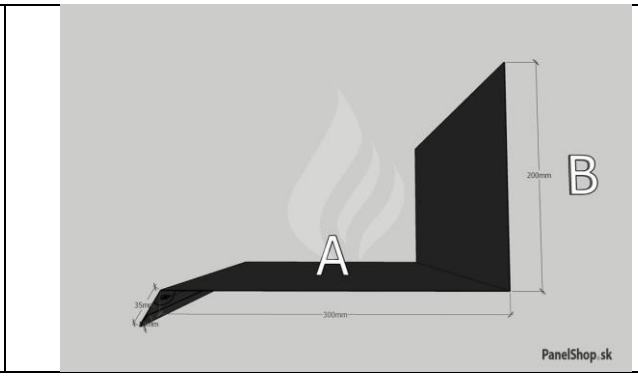


You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

Roof ridge skylight (41.1)

Product code: PO41_01_xxx





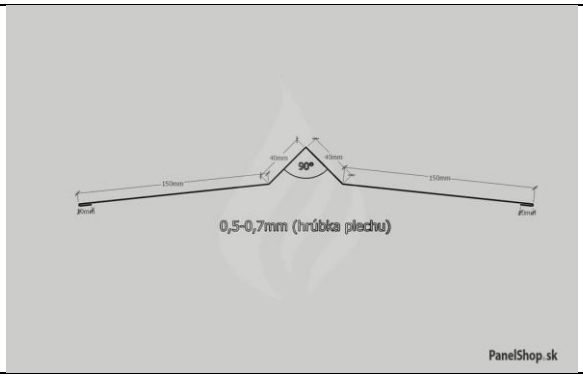
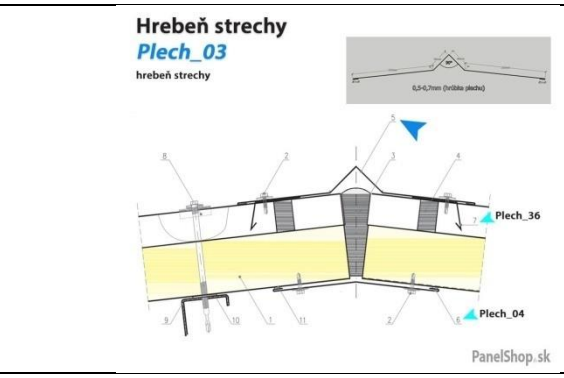
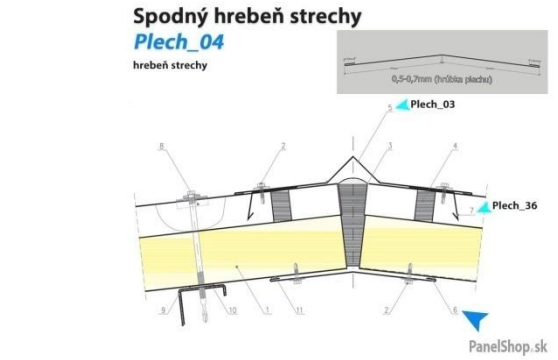
	

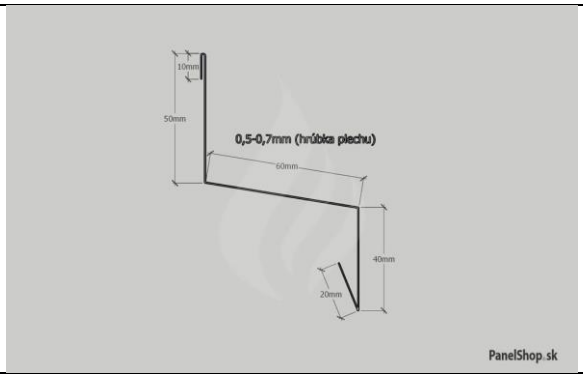
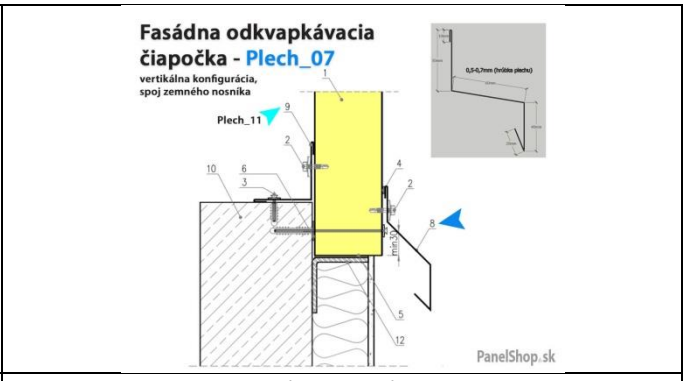
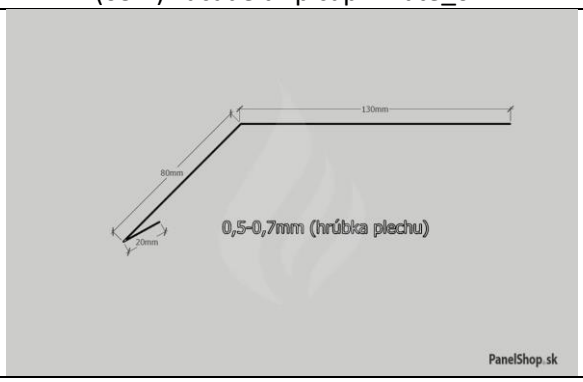
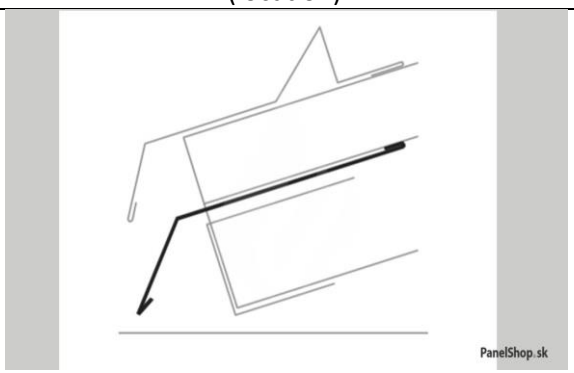
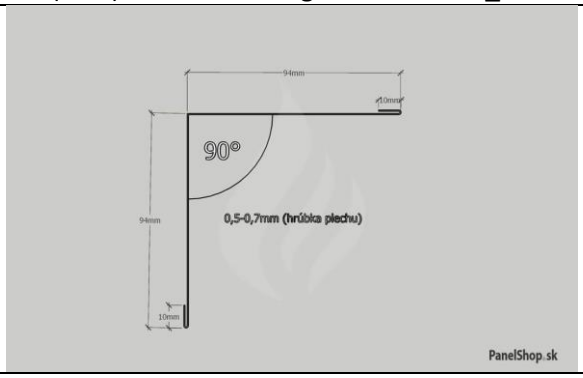
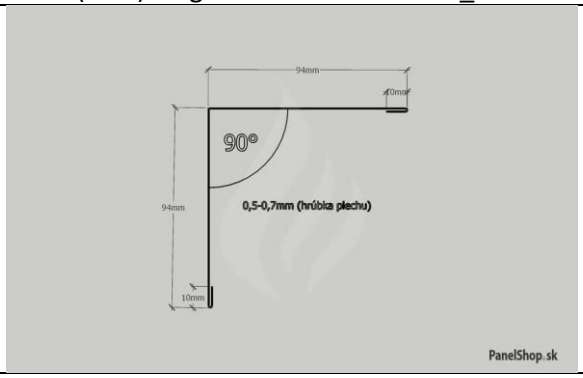
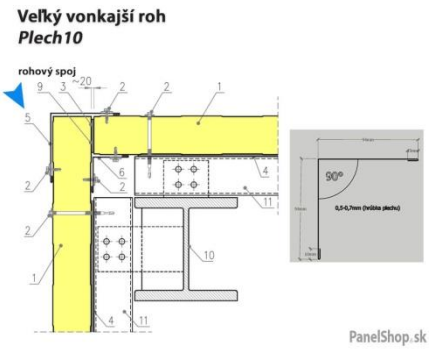
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

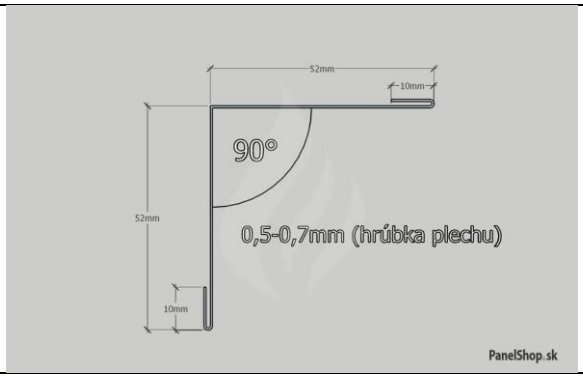
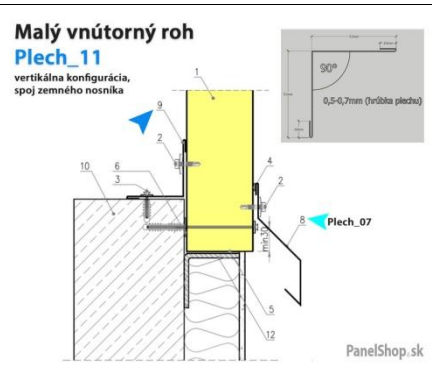
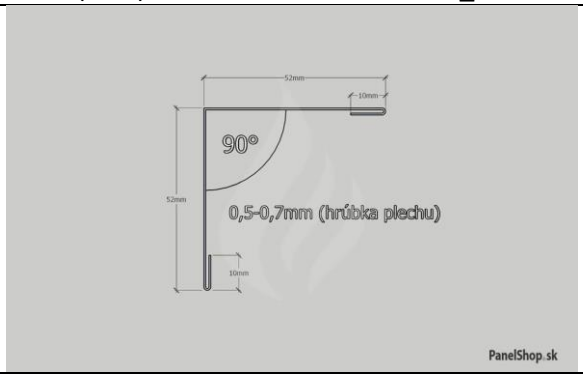
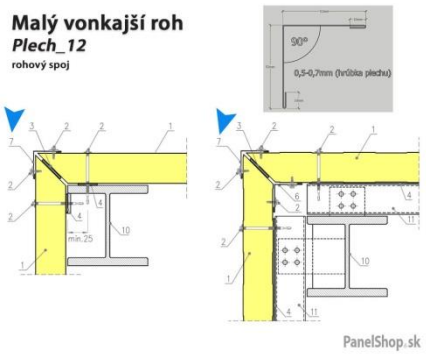
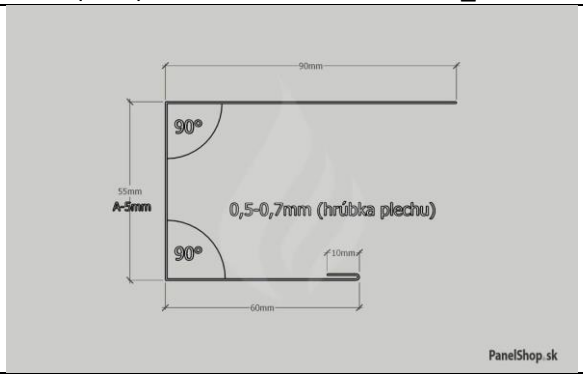
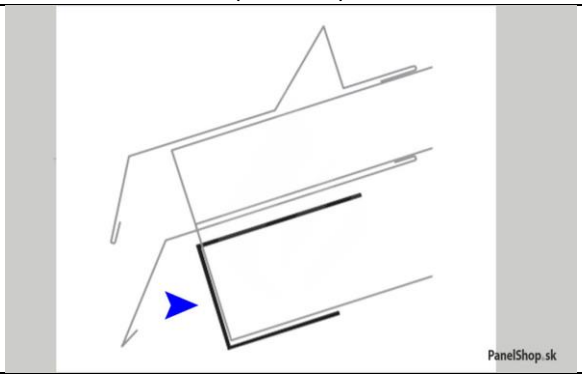
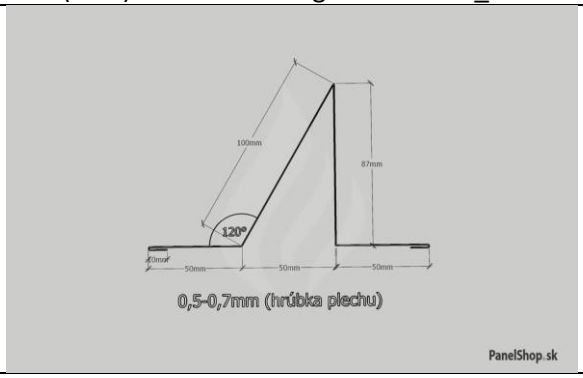
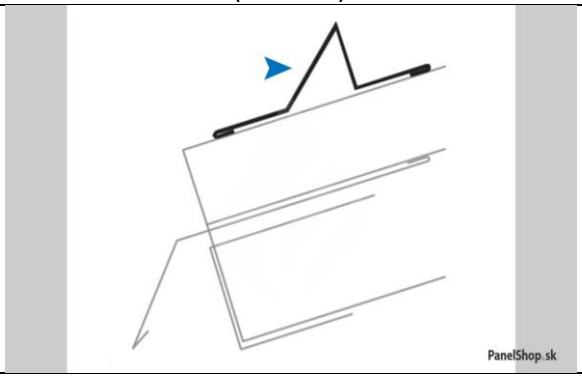
Plating elements (second group, 33 pcs.)

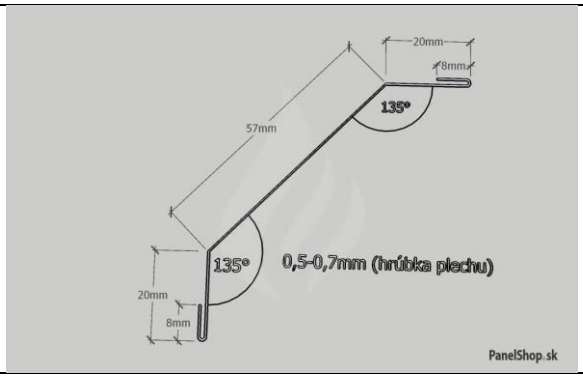
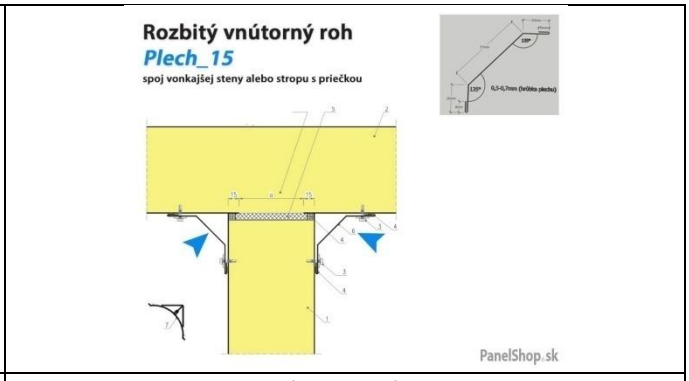
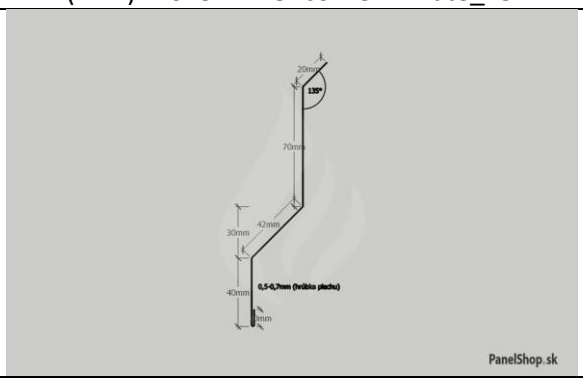
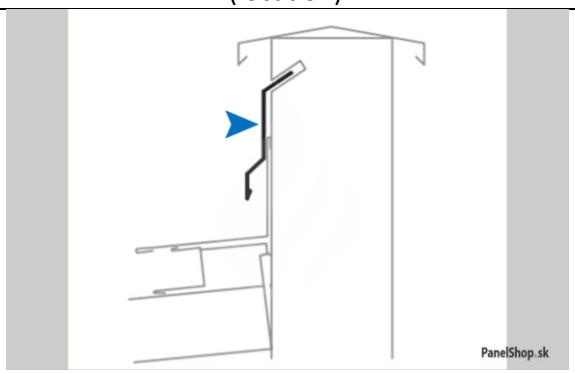
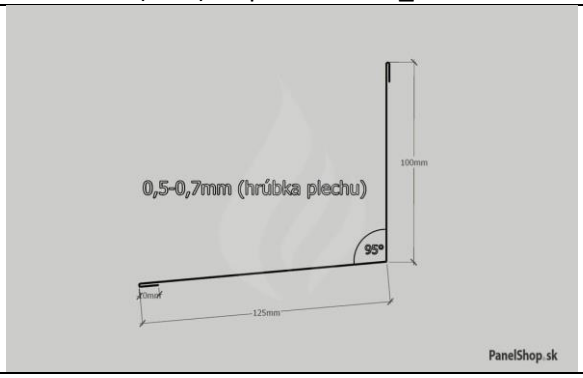
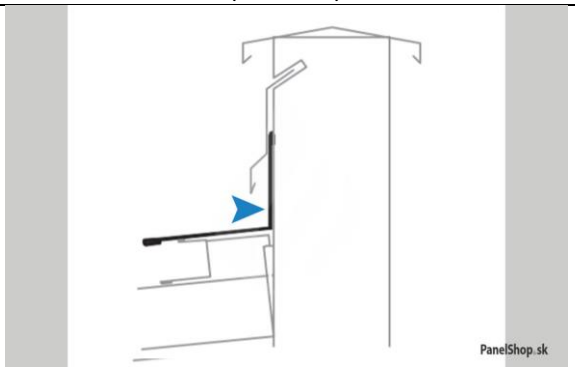
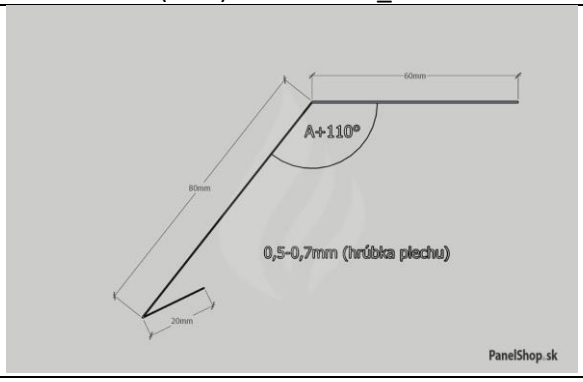
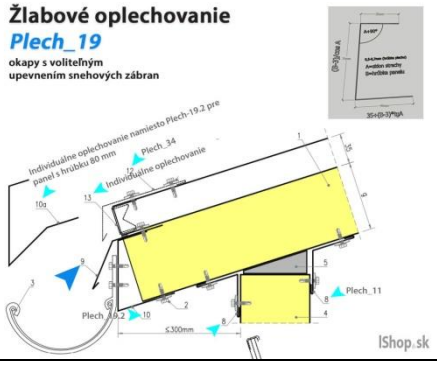
We offer two types of plating elements: 41 pcs and 33 pcs. The possibility of entering your own parameters. We have prepared visualizations of the cladding element and placement examples. Larger images can be found at www.paneleshop.eu in the accessories section.

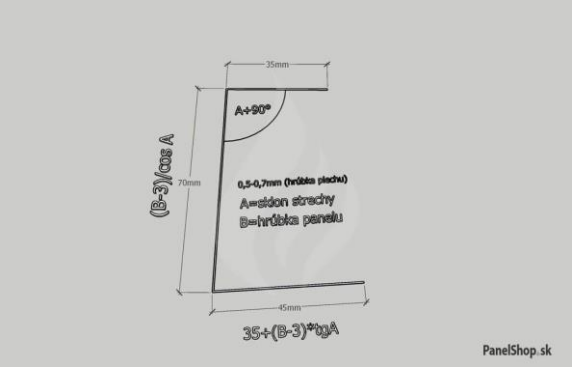
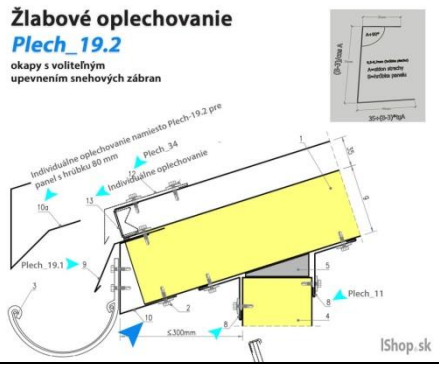
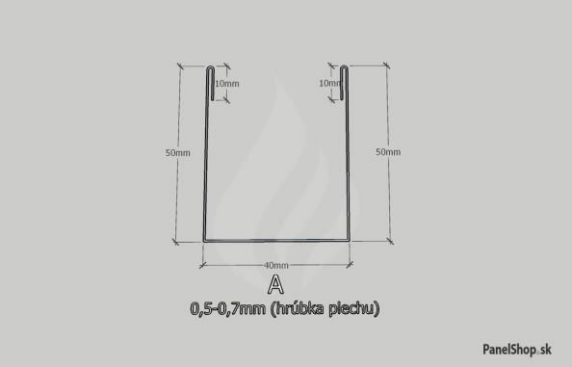
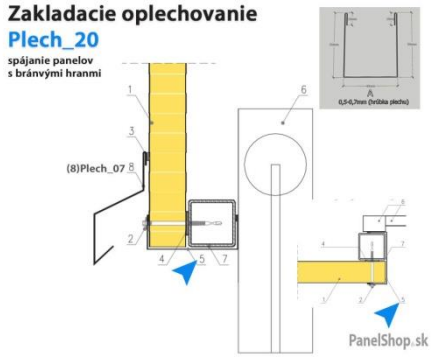
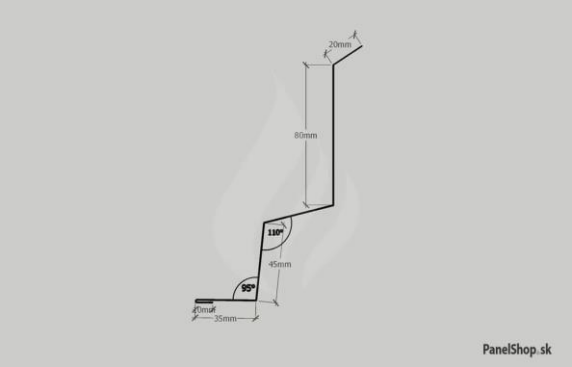
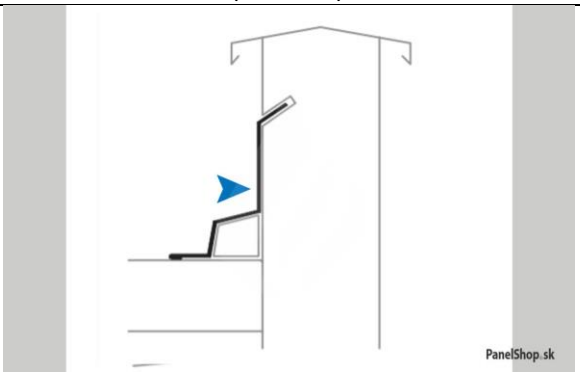
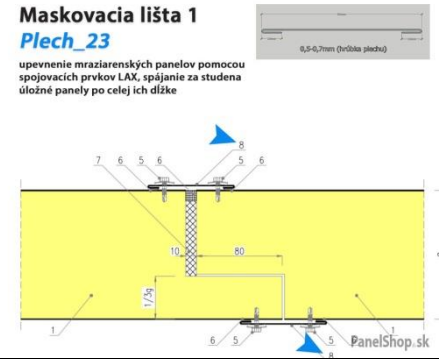
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

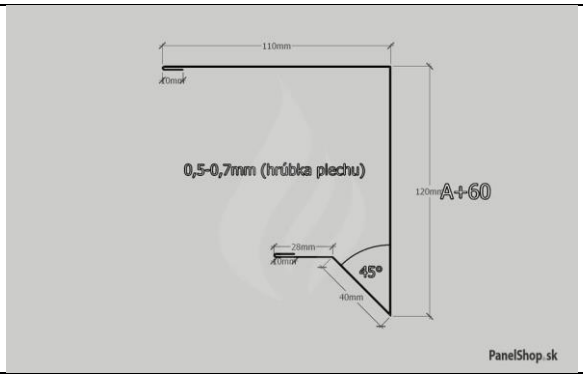
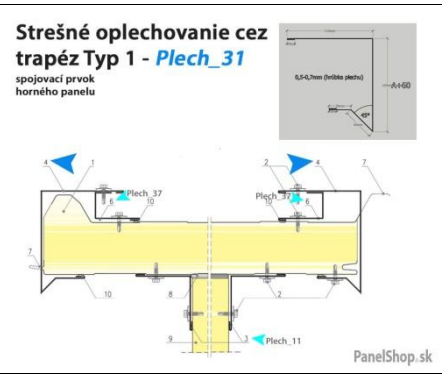
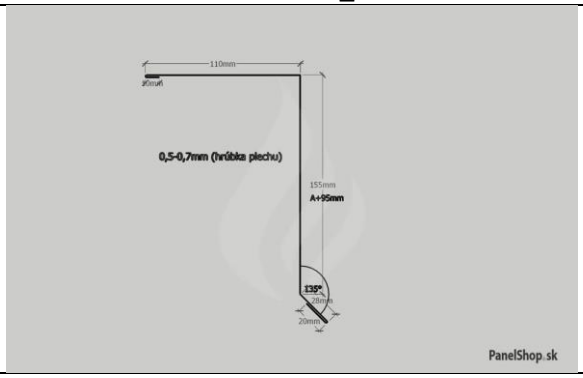
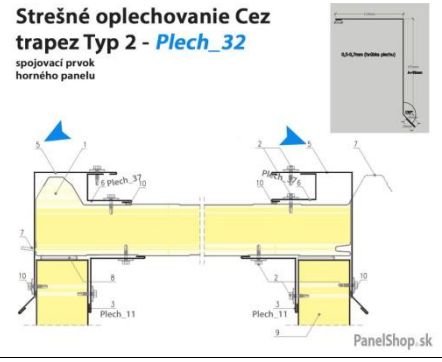
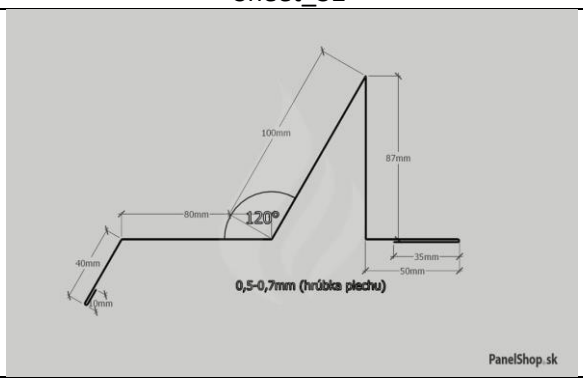
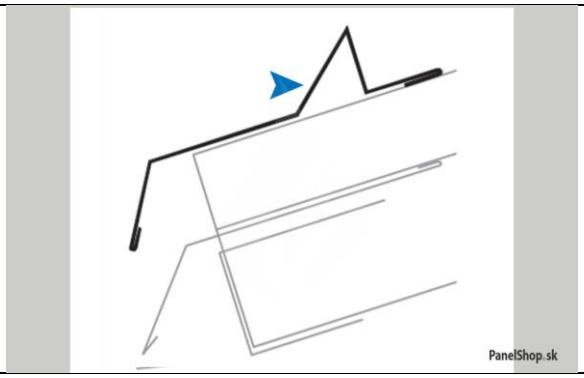
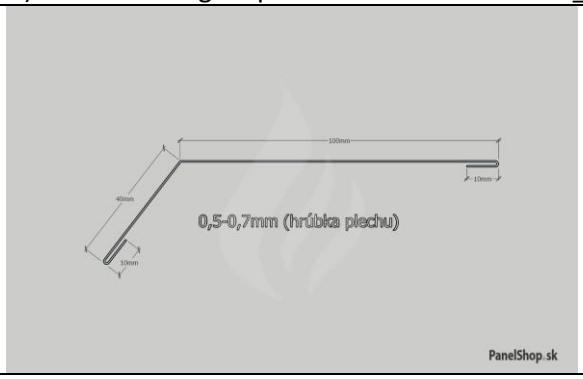
	
(01.2) Roof ridge Plate_03	(location)
	
(02.2) Lower ridge of the roof – Plate_04	(location)

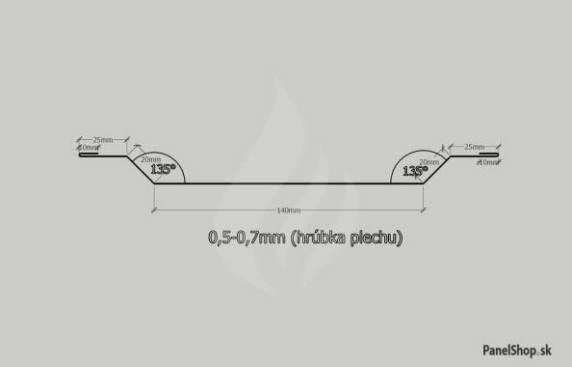
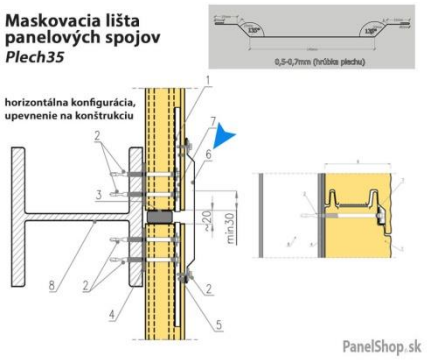
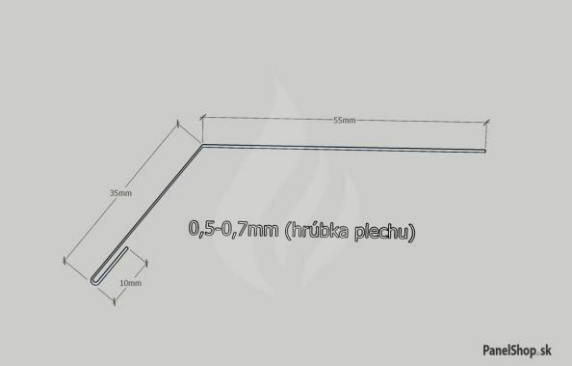
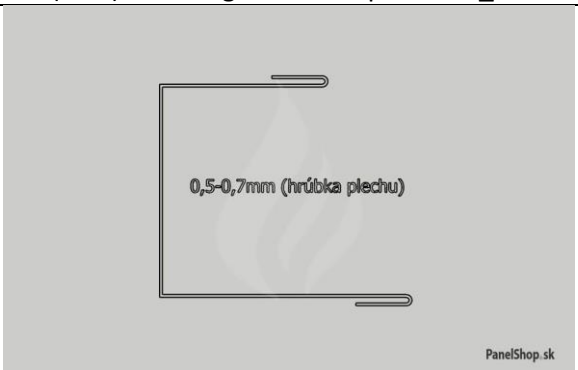
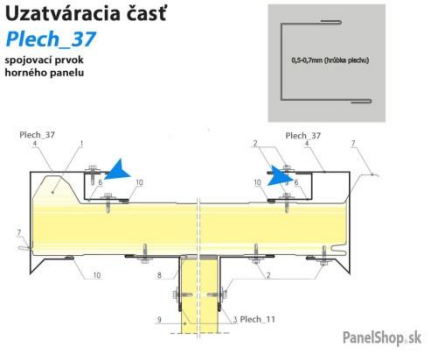
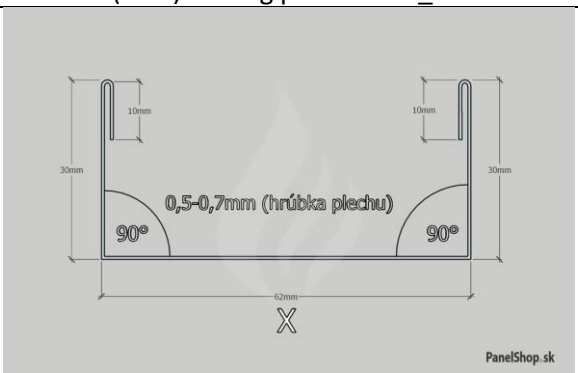
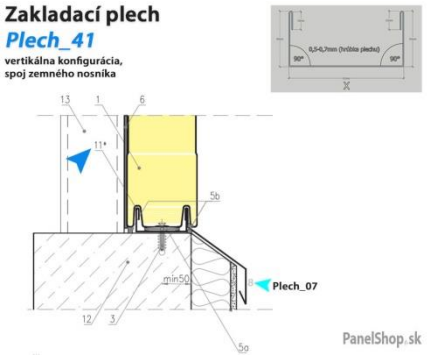
	
(03.2) Facade drip cap - Plate_07	(location)
	
(04.2) Gutter sheeting – Sheet metal_08	(location)
	
(05.2) Large inner corner – Plate_09	(location)
	
(06.2) Large outer corner – Plate_10	(location)

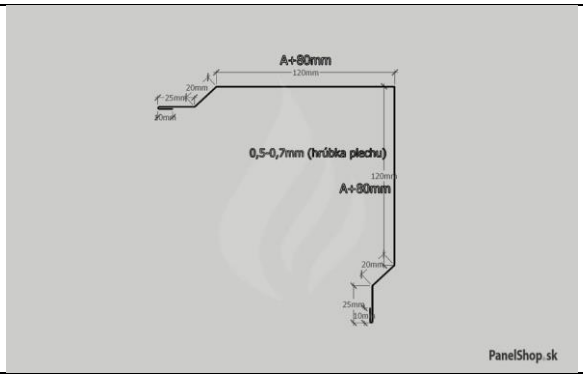
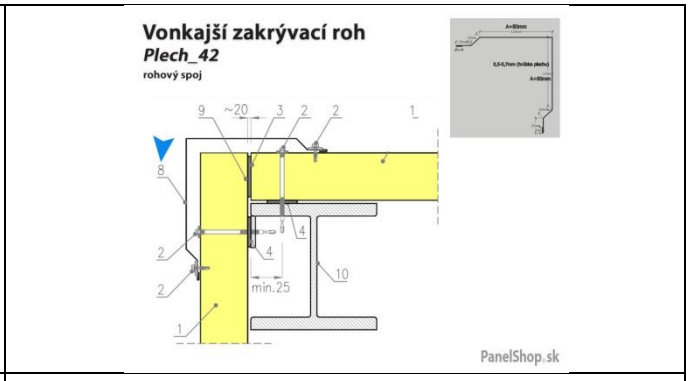
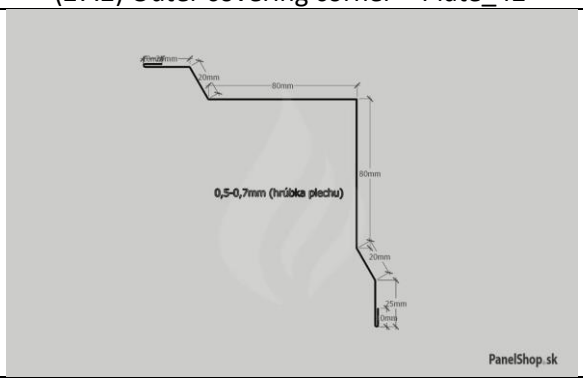
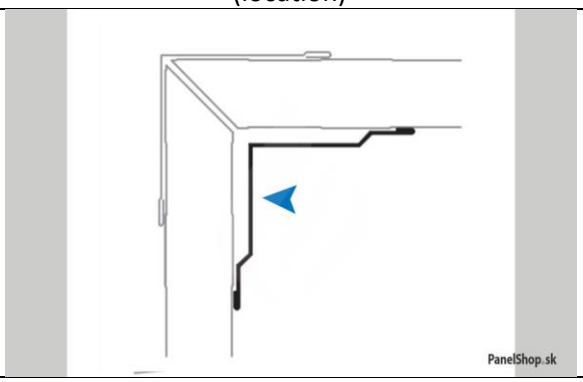
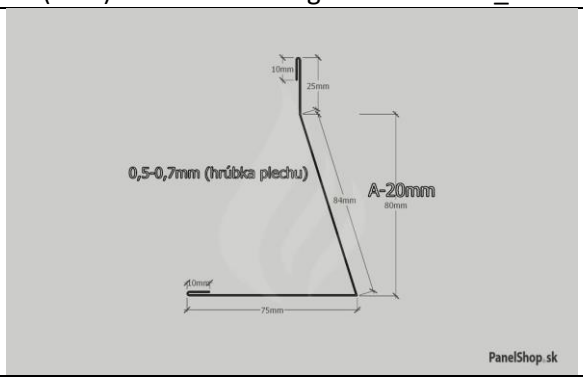
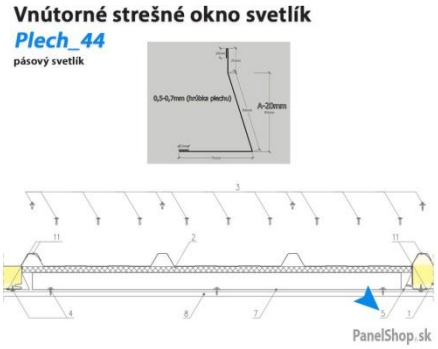
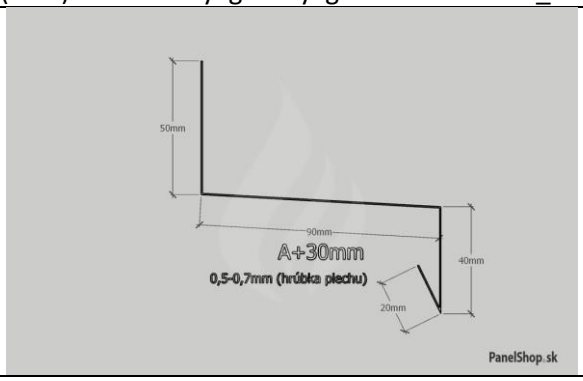
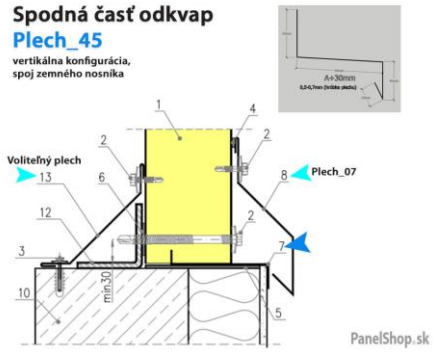
	
(07.2) Small inner corner – Plate_11	(location)
	
(08.2) Small outer corner – Plate_12	(location)
	
(09.2) Bottom of the gutter – Plate_13	(location)
	
(10.2) Anti-snow barrier – Plate_14	(location)

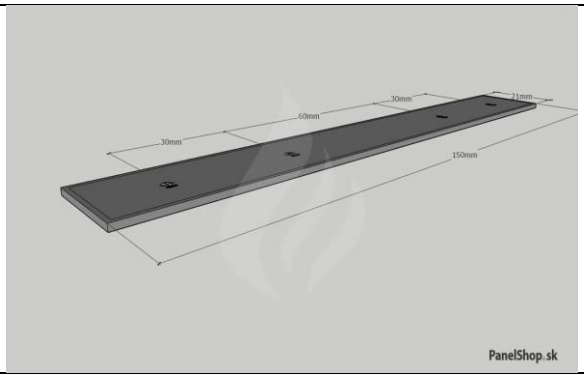
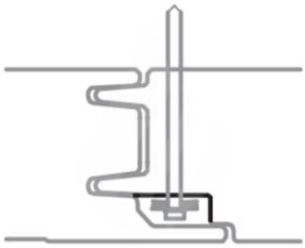
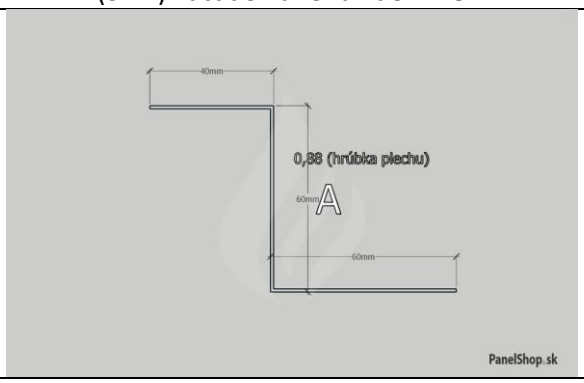
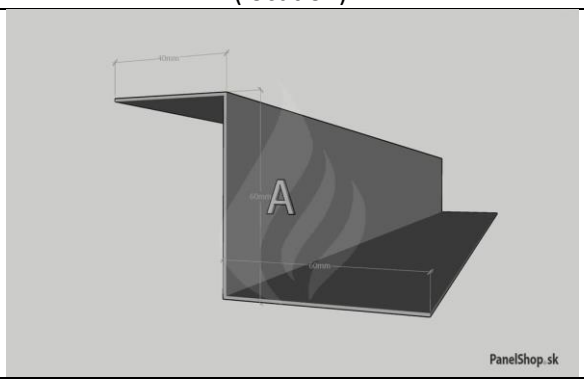
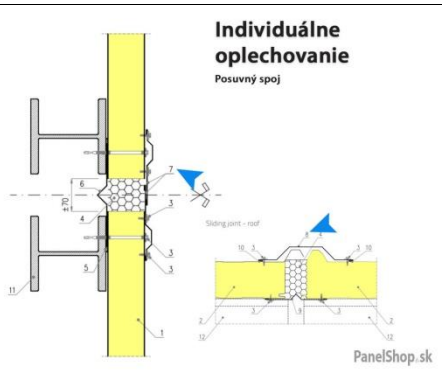
	
(11.2) Broken inner corner – Plate_15	(location)
	
(12.2) Drip bar – Plate_16	(location)
	
(13.2) Wall – Plate_17	(location)
	
(14.2) Gutter plating – Sheet metal_19	(location)

	
(15.2) Bottom of the trough plating - Sheet_19.2	(location)
	
(16.2) Foundation plating – Sheet metal_20	(location)
	
(17.2) Wall sheet for a cut-out panel – Sheet_22	(location)
	
(18.2) Masking strip 1 – Plate_23	(location)

	
(19.2) Roof sheeting Through the trapezoid Type 1 – Sheet metal_31	(location)
	
(20.2) Roof sheeting Through the trapezoid Type 2 – Sheet_32	(location)
	
(21.2) Eaves masking strip with snow barrier - Plate_33	(location)
	
(22.2) Gutter masking strip - plate_34	(location)

	
(23.2) Masking strip of panel joints - Sheet metal_35	(location)
	
(24.2) Roof ridge cover strip – Sheet_36	(location)
	
(25.2) Closing part – Plate_37	(location)
	
(26.2) Foundation sheet – Sheet_41	(location)

	
(27.2) Outer covering corner – Plate_42	(location)
	
(28.2) Internal covering corner – Plate_43	(location)
	
(29.2) Internal skylight skylight – Sheet metal_44	(location)
	
(30.2) The lower part of the gutter – Plate_45	(location)

	
(31.2) Facade Panel binder - LO2	(location)
	
(32.2) Connecting material Z strips – LO4	
	
(33.2) Various	The possibility of entering your own parameters.

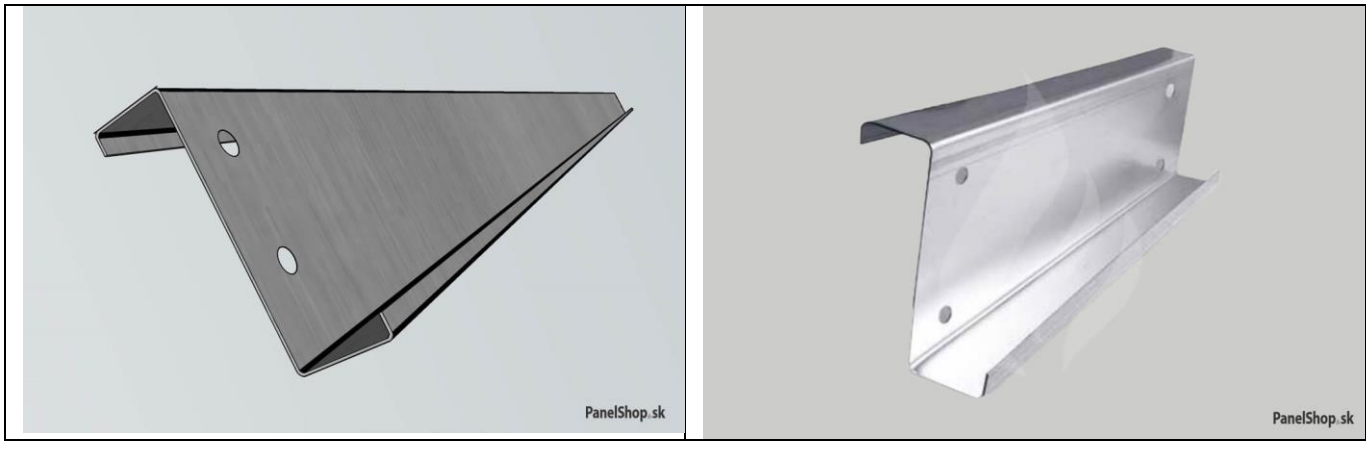
You can find all the variants offered and better visualizations of the location at www.paneleshop.eu/accessories/

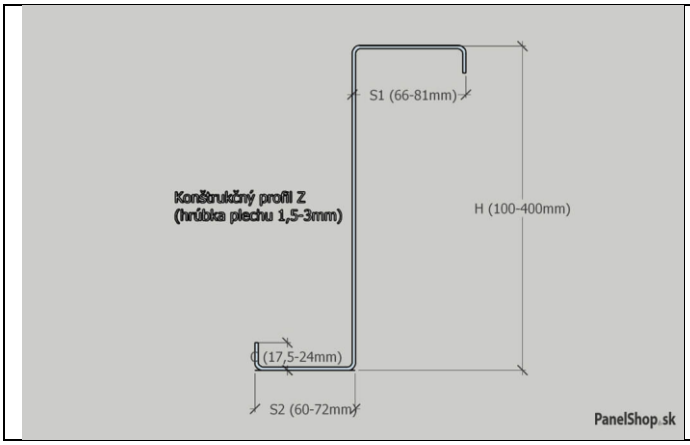
Thin-walled structural profiles

Thin-walled cold profiles

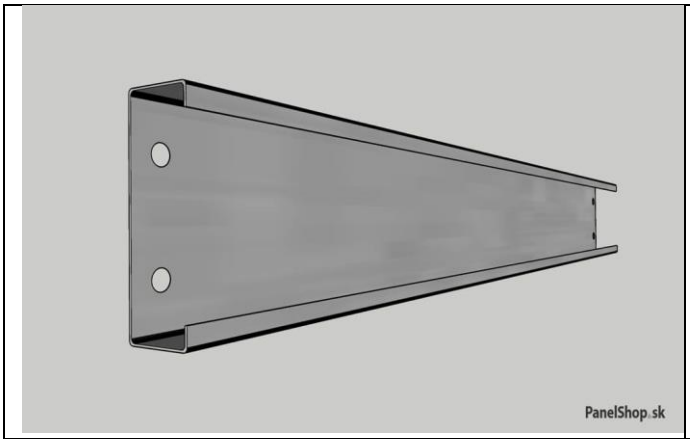
Thin-walled cold profiles are intended for use primarily as cages for ceilings, roofs and walls of steel halls. Thin-walled profiles are available as standardized Z, C and Sigma profiles. Pre-punched holes allow precise and quick assembly. These profiles are used as prisons and wings for all types of halls.

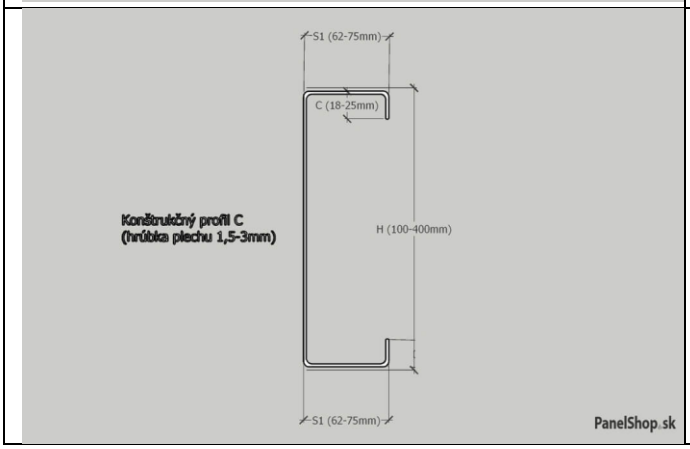
Structural Z profile (thin-walled purlins)



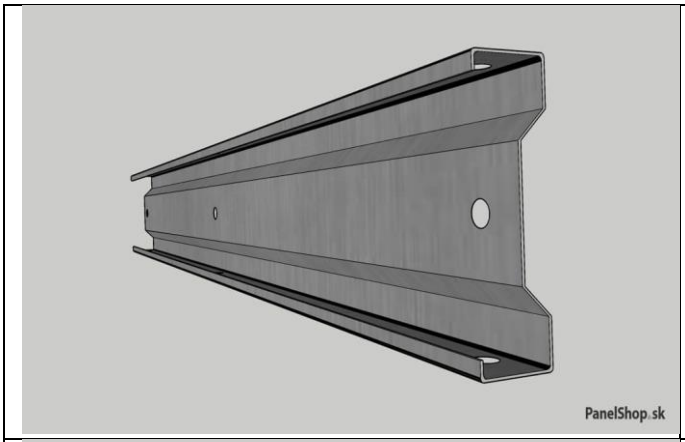


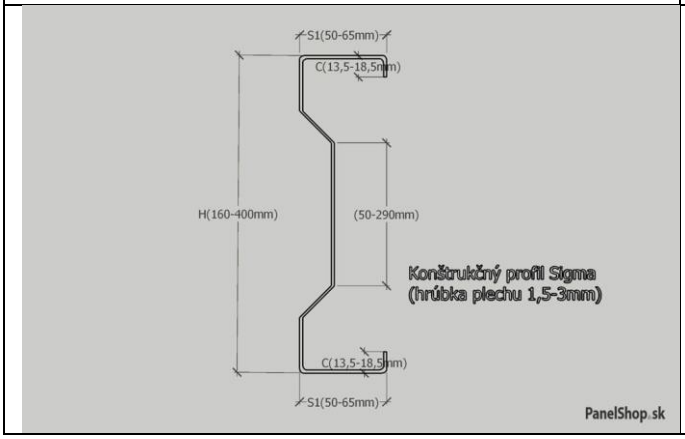
Structural C profile (thin-walled purlins)



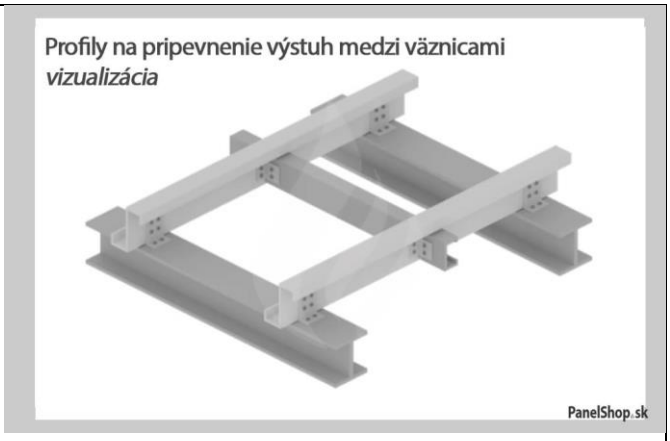


Structural Sigma profile (thin-walled purlins)





Accessories for structural profiles

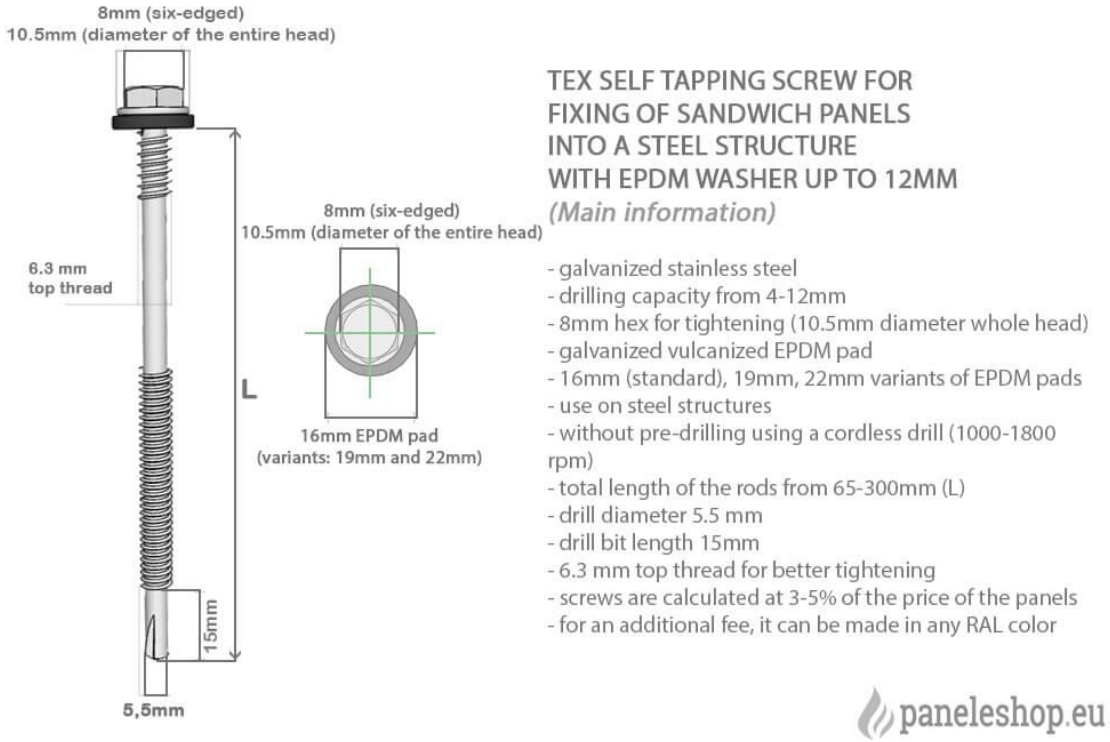


Self-tapping screws, calots, sealing tapes

Learn more about these important elements

Self-tapping screws for sandwich panels (screws)

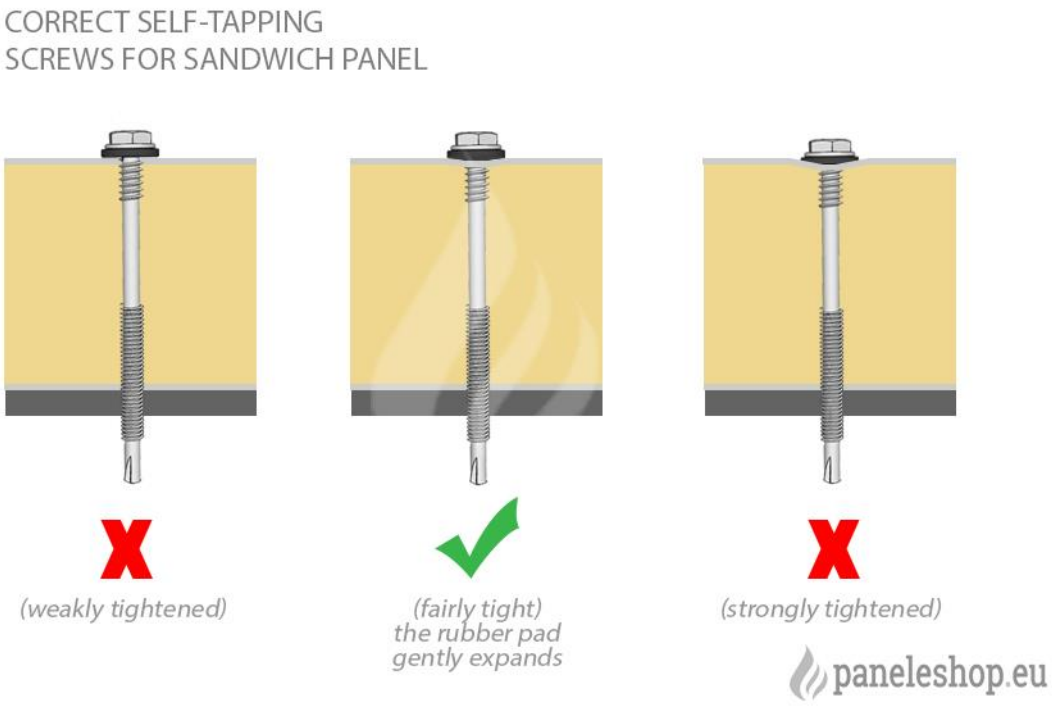
TEX self-tapping screws are used to fasten sandwich panels to a steel, wooden or concrete structure. Self-tapping screws are made of noble galvanized or stainless steel (more expensive version) with an EPDM pad. Both roof and wall panels can be fastened without pre-drilling, except for installation in a concrete structure, where a classic dowel with pre-drilling is used.



The diameter of the screw is 5.5 mm, the width of the head is 8 mm hexagon (10.5 mm diameter of the whole head), the length of the drill bit is 15 mm. The lengths of the screws are from 65-300mm from the drill bit to the head. The EPDM pad is made of vulcanized galvanized steel or stainless steel in sizes 16mm, 19mm and 22mm.

The drilling capacity is up to 6 mm and up to 12 mm. The screws are drilled using a battery-powered drill (1000-1800 rpm) without pre-drilling, except for fastening to concrete. In practice, the minimum length of the thread-forming screw is determined as the sum of the thicknesses of all materials to be fastened +20-30 mm.

Screws are calculated at 3-5% of the price of the panels (when estimating the quantity). For an additional fee, it can be made in any RAL color. The approximate price is €0.55 without VAT per piece (155 mm also with washer, galvanized, for iron). In our e-shop you can find for which panel thickness and which length of screw to use.



Self-tapping screws for sandwich panels can be divided into the following groups:

For iron (galvanized, stainless steel)

- Up to 6mm drilling capacity with a smaller drill bit (with washer, without washer)
- Up to 12mm drilling capacity with a larger drill bit (with washer, without washer)

For wood (galvanized, stainless steel)

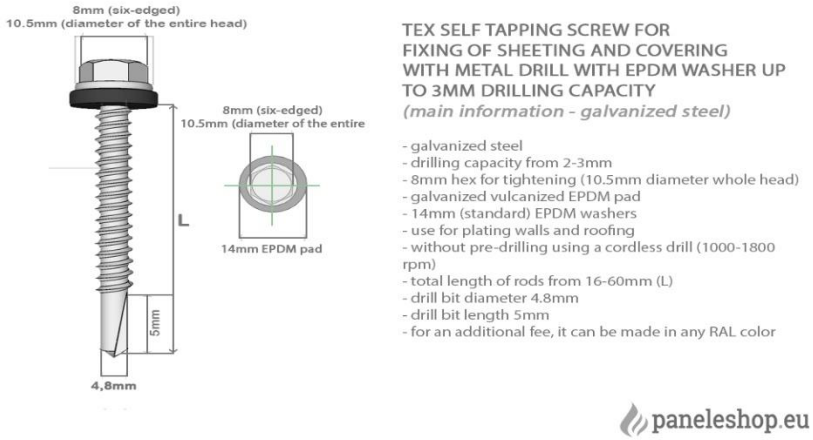
- Different type of drill bit (with washer, without washer)

For concrete (galvanized, stainless steel)

- different type of drill (with washer, without washer)

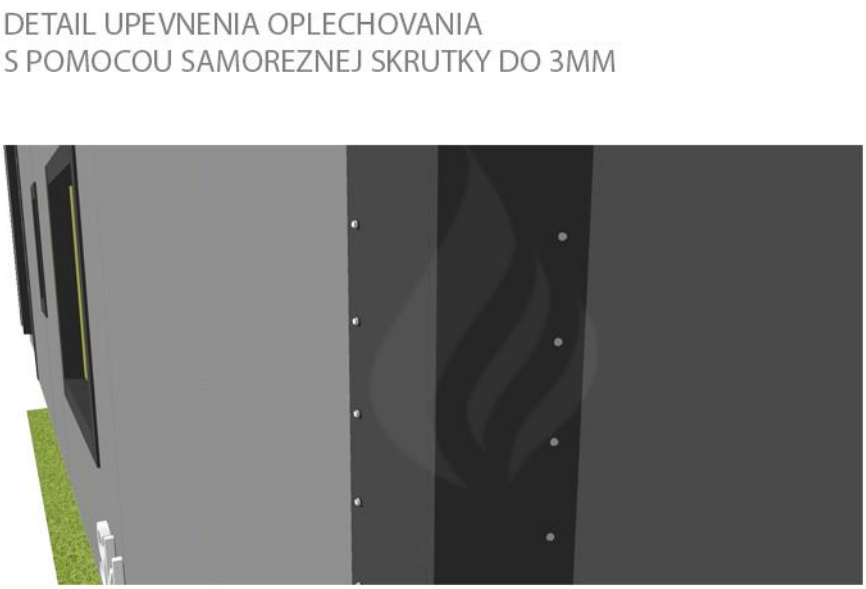
Self-tapping screws for plating and sheathing sandwich panels (staples)

TEX self-tapping screws are used to fasten roofing and wall cladding with a metal drill. Self-tapping screws are made of noble galvanized or stainless steel (more expensive version) with an EPDM washer.



The diameter of the screw is 4.8 mm, the width of the head is 8 mm hexagon (10.5 mm diameter of the whole head), the length of the drill bit is 5 mm. Screw lengths are from 16-60mm. The drilling capacity is from 2-3mm. The EPDM pad is made of vulcanized galvanized steel or stainless steel in dimensions of 14 mm.

The use of the screw is for attaching wall and roof sheets without pre-drilling using a battery-powered drill (1000-1800 rpm). Screws are calculated at 1-2% of the price of the panels (when estimating the quantity). For an additional fee, it can be made in any RAL color



(Oplechovanie vonkajšieho rohu na sendvičový panel. Obrázok montovaného skladu.)

Self-tapping screws for sheet metal can be divided into the following groups:

to iron (galvanized, stainless steel)

- up to 3 mm drilling capacity with a smaller drill bit (with washer, without washer)
- up to 6 mm drilling capacity with a larger drill bit (with washer, without washer)
- up to 12 mm drilling capacity with a larger drill bit (with washer, without washer)

for wood (galvanized, stainless steel)

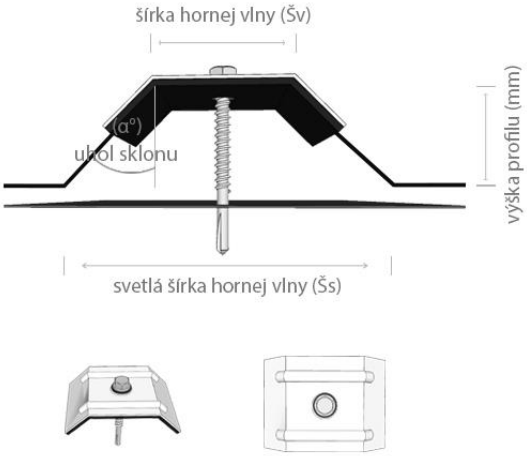
- different type of drill (with washer, without washer)

For concrete (galvanized, stainless steel)

- different type of drill (with washer, without washer, with dowel)

Calots for roof sandwich panels

They are used to fasten roof sandwich panels to steel or wooden supporting structures. They are made of painted aluminum. Standard color RAL 9002. They are used together with standard self-tapping screws with a recommended 16mm washer. We offer all RAL colors for an additional fee.



KALOTA PRE LEPŠIE UPEVNENIE STREŠNÝCH SENDVIČOVÝCH PANELOV
Z LAKOVANÉHO HLINÍKA (NA TRAPÉZ)
(hlavné informácie - kaloty)

- lakovaný hliník
- šírky kaloty 20-55mm
- vystužené rebrami
- šírky kaloty 20-55mm
- hrúbka kaloty je 3mm
- integrovaná 2mm machová guma (EPDM)
- štandardná farba RAL 9002
- za príplatok možnosť výberu v RAL farbe
- potrebné vedieť šírku hornej vlny (Šv) a uhol sklonu (α°) alebo šírku hornej vlny (Šv), výšku profilu(Vp) a svetlú šírku hornej vlny (Šs)
- používajú sa spolu so samoreznými skrutkami do sendvičových panelov s 16mm podložkou

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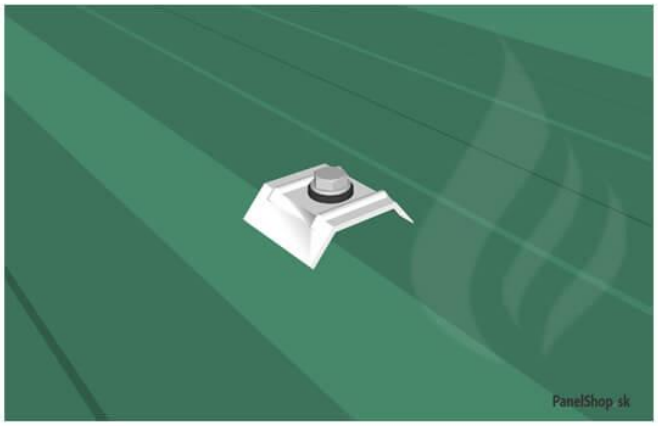
It is necessary to know the width of the dome and the angle of inclination in degrees. The required width of the cap is determined by measuring the width of the upper wave of the trapezoid (IIIv) plus +1mm. The required coal can be determined according to the width of the upper wave, the height of the profile and the clear width of the upper wave.

DETAIL OF THE MOUNTING OF THE COVER TO THE ROOF PANEL
TOGETHER WITH A SELF-TAPPING SCREW

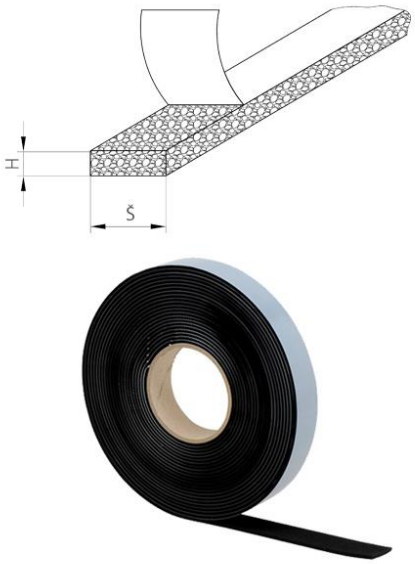


(Image of roof panel with dome attachment)

EPDM sealing tape

It is used for fast, effective and aesthetic sealing of gaps in sheet metal coverings and sealing of hard metal-to-metal joints in prefabricated buildings in metal constructions. Provides protection against water penetration, ageing, UV radiation, temperature, dust, drafts, humidity and thermal bridges. It is suitable for both interior and exterior use.

Tape thicknesses are from 2 to 10mm and widths are from 6-80mm. One roll is 10m long. It is applied directly to the substrate with a pressure roller at a temperature of +5 °C to +35 °C.



EPDM TESNIACA PÁSKA
(hlavné informácie)

-rýchle, účinné a estetické utesnenie špár
- oplechovanie krytín, tesnenie spojov kov na kov, montované stavby, kovové konštrukcie
- ochrana proti prenikaniu vody, starnutiu, UV žiareniu, teplote, prachu, prievanu, vlhkosti a tepelným mostom
- aplikácia priamo na podkladovú plochu s prítlačným valčekom pri teplote +5 ° C až +35 ° C.
- hrúbky (H) od 2 do 10mm a šírky (Š) sú od 6-80mm
- vhodná do interiéru aj exteriéru
- rolka je dlhá 10m

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Customer service

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Email: obchod@paneleshop.eu

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Billing address: Slnečná 2289/10, 026 01 Dolný Kubín

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