

SANDWICH

A construction site featuring a large building under construction with extensive scaffolding. A long crane arm extends from the right side of the frame towards the top left. In the foreground, there are stacks of materials and a worker. The entire image has a teal color overlay.

PANELS

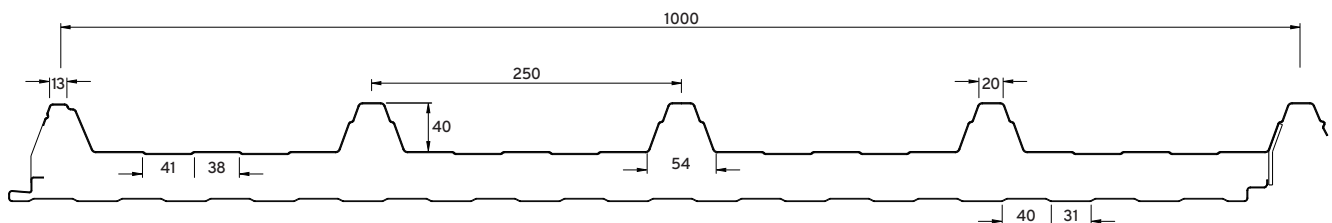
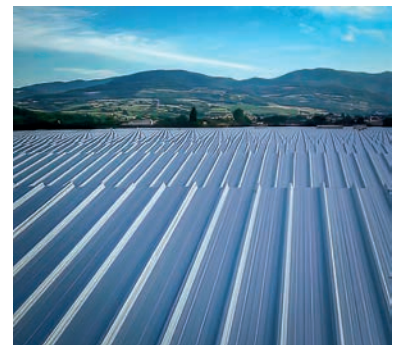
CONTENTS

The sandwich panels of Trier Insulated Panels at a glance:

 PENTA	Self-supporting sandwich panels for strong roofs	04
 MONOPENTA	The light variant not only saves costs but also weight	06
 PENTA W WA	The expert in fire protection for your roof	08
 AGROPANEL	The specialist for acids and ammonia	10
 MEC BOX	The solid wall for office and hall construction	12
 MEC W WA	The expert in fire protection for your walls	14
 SUPERTOP	The visually appealing facade for your halls	16
 SUPERTOP W WA	The elegant fire protection wall	18
 FRIGO	The sandwich panel for really cool walls	20
 PROFILES	Our panel profiles	22
 NOTES	About unloading, storage and installation	23
 ABOUT US	Our company at the gates of Trier	26

PENTA

PENTA sandwich panels have an insulation made of polyurethane rigid foam and are suitable for roofs of industrial and commercial buildings as well as for agricultural and residential buildings.



Cover width: 1.000 mm | Standard lengths: 2.000 mm - 13.500 mm | Other lengths available upon request

Self-supporting sandwich panels for strong roofs

Description

The self-supporting Penta roof panel has a polyurethane rigid foam insulation core (CFC- and HCFC-free) and two metallic cover shells.

Due to the trapezoidal profiled shape of the upper shell and the design of the panel joint in composite, it can be used for buildings with a roof pitch as low as 3° (equivalent to 5%).

Technical specifications

Penta complies with the European sandwich standard EN ISO 14509:2013 - Self-supporting sandwich elements with metal face sheets on both sides.

Approval for use | Approval Z-10.49-542

Profiling

Outer shell profiled



Inner shell lined



flat



Technical data

Panel thickness [mm]	Weight [kg/m ²]	Facings external/internal [mm]	Thermal transmittance U [W/m ² K] (Joint factor Ψ)		Reaction to fire	Airborne sound insulation Rw
			U without Ψ	U with Ψ		
30	10,55	0,50/0,50	0,73	0,77	B-s2,d0	25 dB*
40	10,96	0,50/0,50	0,55	0,58		
50	11,38	0,50/0,50	0,45	0,46		
60	11,79	0,50/0,50	0,37	0,38		
80	12,62	0,50/0,50	0,28	0,29		
100	13,45	0,50/0,50	0,22	0,23		
120	14,28	0,50/0,50	0,19	0,19		
150	15,53	0,50/0,50	0,15	0,15		

* in accordance with IFBS, professional rules for lightweight metal construction, GL

Characteristics and application

Penta has an excellent thermal insulation and high building material class according to DIN EN 13501-1.

The 4-corrugated profile allows for large spans and potential cost savings in the substructure.

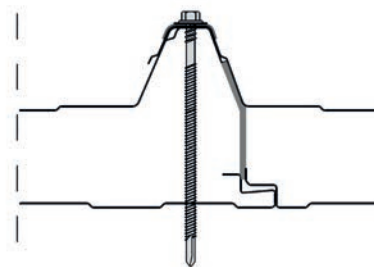
We use strip galvanized sheet steel S350GD + Z275 as cover shells.

As standard, we offer the cover shells with a polyester coating (25 μ m PE). Other coatings are available on request.

Photovoltaic systems can be installed using screw piles. Upon consultation, the panel configuration can be adjusted to facilitate direct mounting.

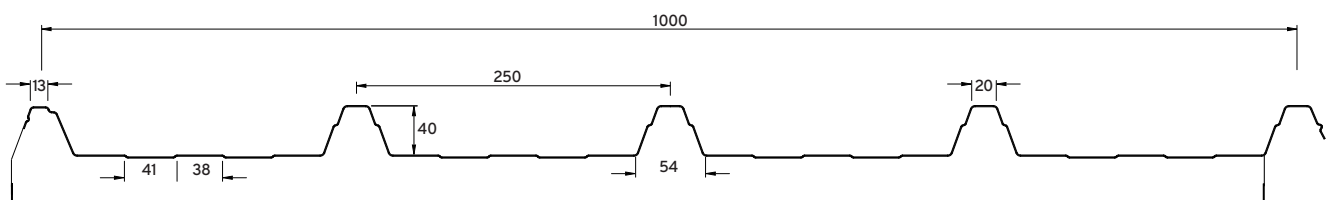
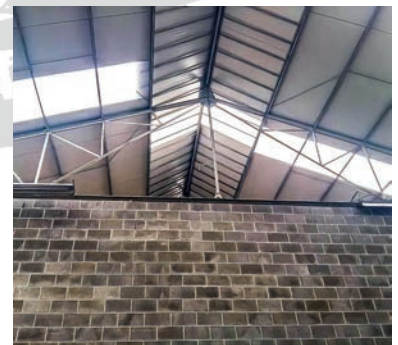
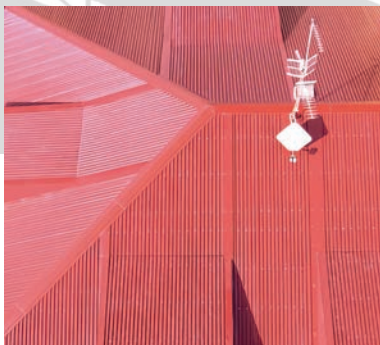
Depending on customer requirements, Penta can also be used in wall applications.

Joint detail



MONOPENTA

MONOPENTA roof panels have an insulation made of polyurethane rigid foam and are suitable for roofs of industrial and commercial buildings. The aluminum interior side is corrosion resistant.



Cover width: 1.000 mm | Standard lengths: 2.000 mm - 13.500 mm | Other lengths available upon request

The light variant not only saves costs but also weight

Description

The single-skin roof panel has an insulation core made of rigid polyurethane foam (CFC- and HCFC-free) and an inner shell made of aluminum foil (stuccated).

Monopenta is suitable for the use on buildings with a roof pitch of 7% or more.

Technical specifications

Monopenta does not have building authority approval, but can be used as a roof covering with a span of support ≤ 1.000 mm.

Profiling

Outer shell profiled



Inner shell Alufoil



Technical data

Panel thickness [mm]	Weight [kg/m ²]	Facings external Steel / internal Alufoil [mm]	Thermal transmittance U [W/m ² K] (Joint factor Ψ)		Reaction to fire	Airborne sound insulation Rw
			U without Ψ	U with Ψ		
30	6,52	0,50/0,05	0,86	0,91	B2 according to EN 13510 Classification E	NPD*
40	6,94	0,50/0,05	0,67	0,70		
50	7,35	0,50/0,05	0,55	0,57		
60	7,77	0,50/0,05	0,46	0,47		

* NPD – No performance determined

Characteristics and application

Monopenta, the 4-corrugated profile, saves weight and costs with its inner side made of aluminum foil, and it is also corrosion-resistant.

We use strip galvanized steel plate S350GD + Z275 as cover shells.

As standard, we offer the cover shells with a polyester coating (25 μ m PE). Other coatings are available on request.

Photovoltaic systems can be installed using hanger bolts.

Upon consultation, the panel configuration can be adjusted to facilitate direct mounting.

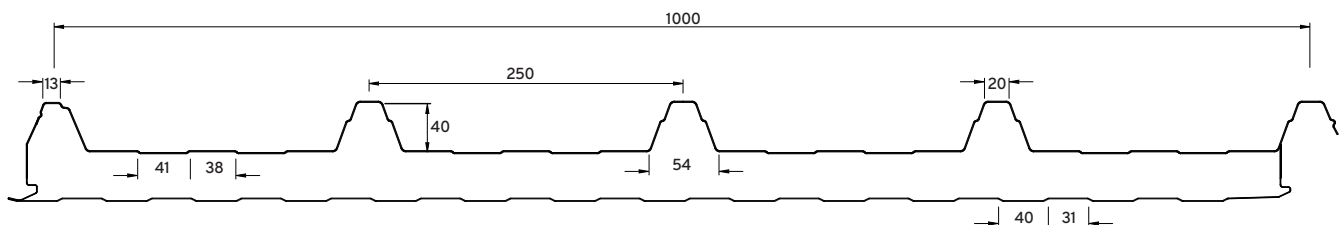
The roof is walkable for routine maintenance by individuals, using load-distributing aids.

Joint detail



PENTA W|WA

PENTA W|WA roof panels have an insulating core made of mineral wool and are suitable for roofs of industrial and commercial buildings where increased fire protection requirements must be met.



Cover width: 1.000 mm | Standard lengths: 2.000 mm - 13.500 mm | Other lengths available upon request

The expert in fire protection for your roof

Description

The self-supporting roof panel has an insulation core made of mineral wool and two metallic cover shells. Due to the trapezoidal profiled shape of the upper shell and the design of the panel joint in composite, it can be used for buildings with a roof pitch as low as 3° (equivalent to 5%).

Technical specifications

Penta W complies with the European sandwich standard EN ISO 14509:2013 - Self-supporting sandwich panels with metal facings on both sides. This standard does not include the Penta WA acoustic variant.

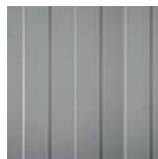
Approval for use Penta W | Approval Z-10.49-681

Profiling

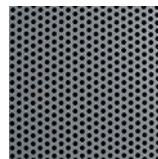
Outer shell profiled



Inner shell lined



perforated



Characteristics and application

Penta W has a high fire resistance and a high building material class according to DIN EN 13501-1. The 4-corrugated profile is also available as an acoustic panel, which provides excellent sound absorption due to the special structure of the inner shell (perforated).

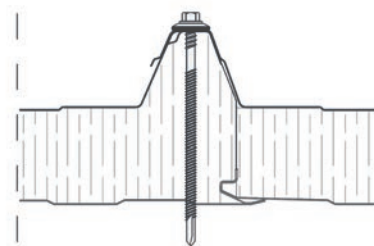
We use strip galvanized steel sheet S250GD + Z275 as cover shells.

As standard, we offer the cover shells with a polyester coating (25 µm PE). Other coatings are available on request.

If the Penta WA acoustic panels are used in heated halls, their building physics need to be examined. The installation of photovoltaic modules via hanger bolts is possible.

The roof is walkable for routine maintenance by individuals, using load-distributing aids.

Joint detail



Technical data (Penta W)

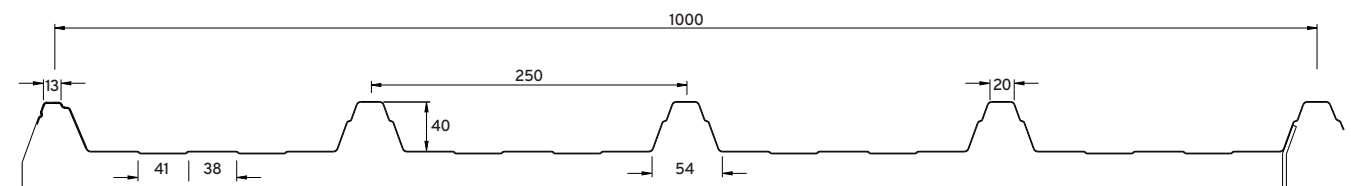
Panel thickness [mm]	Weight [kg/m ²]	Facings external/internal [mm]	Thermal transmittance U [W/m ² K]	Fire resistance	Reaction to fire	Airborne sound insulation Rw
50	16,62	0,60 / 0,50	0,81	REI30	A2-s1,d0	
60	17,82	0,60 / 0,50	0,68			
80	20,22	0,60 / 0,50	0,52	REI60		34 dB*
100	22,62	0,60 / 0,50	0,42	REI120		33 dB*
120	25,20	0,60 / 0,50	0,35			
150	28,62	0,60 / 0,50	0,28			
200	34,62	0,60 / 0,50	0,21			
240	39,42	0,60 / 0,50	0,18			

* Facing thicknesses used: 0,50 / 0,50 mm

Note: Due to its insulating core, the panel has a significantly higher weight than sandwich elements with PU rigid foam. Please request data for Penta WA.

AGROPANEL

AGROPANEL has an insulation made of rigid polyurethane foam and, due to its polyester/GFRP inner surface, is especially used in the agricultural industry, halls exposed to acid and ammonia, and for salt storage.



Cover width: 1.000 mm | Standard lengths: 2.000 mm - 13.500 mm | Other lengths available upon request

The specialist for acids and ammonia

Description

The self-supporting Agropanel has an insulation core made of rigid polyurethane foam (CFC- and HCFC-free) and an inner shell made of glass-fiber reinforced plastic (GFRP). Due to the trapezoidal profiled shape of the upper shell and the design of the panel joint in composite, it can be used for buildings with a roof pitch as low as 3° (equivalent to 5%).

Technical specifications

Agropanel, particularly suitable for halls exposed to acid and ammonia exposure, is the first panel of this type on the market with a building authority approval.

Approval for use | Approval Z-10.4-326

Profiling

Outer shell profiled



Inner shell GFRP



Technical data

Panel thickness [mm]	Weight [kg/m ²]	Facings external Steel / internal GFRP [mm]	Thermal transmittance U [W/m ² K] (Joint factor Ψ)		Reaction to fire	Airborne sound insulation Rw
			U without Ψ	U with Ψ		
30	7,20	0,50/0,80	0,88	0,93	B2 according to DIN 4102-4	NPD*
40	7,62	0,50/0,80	0,68	0,71		
50	8,03	0,50/0,80	0,55	0,57		
60	8,45	0,50/0,80	0,47	0,48		
80	9,28	0,50/0,80	0,35	0,36		

* NPD – No performance determined

Characteristics and application

The Agropanel provides good thermal insulation and is characterized by its particularly resistant inner shell to acids and ammonia.

We use strip galvanized steel sheet S280GD + Z275 as cover shells.

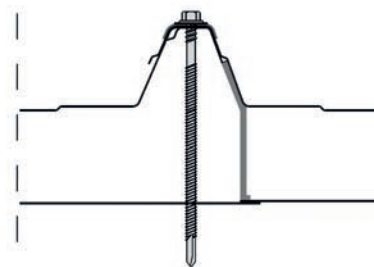
As standard, we offer the cover shells with a polyester coating (25 μ m PE). Other coatings are available on request.

Photovoltaic systems can be installed using hanger bolts.

Upon consultation, the panel configuration can be adjusted to facilitate direct mounting.

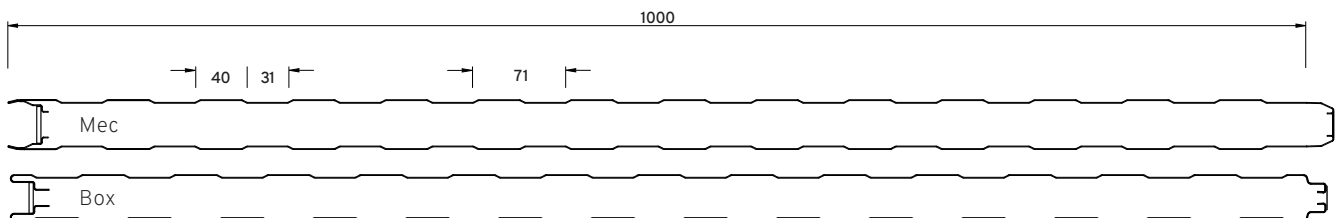
The roof is walkable for routine maintenance by individuals, using load-distributing aids.

Joint detail



MEC | BOX

MEC|BOX wall panels have an insulation made of rigid polyurethane foam and are used for facades of industrial and commercial buildings.



Standard cover width: 1.000 mm | Standard lengths: 2.000 mm - 13.500 mm | Other lengths available upon request

The solid wall for office and hall construction

Description

The self-supporting Mec|Box wall panel is has an insulating core made of rigid polyurethane foam (CFC- and HCFC-free) and two metallic cover shells.

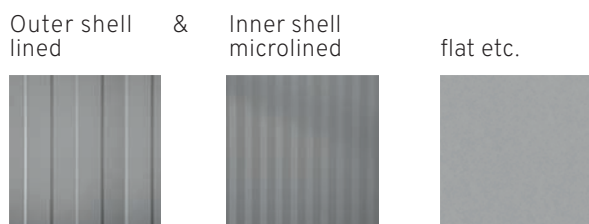
Mec|Box is a sandwich panel with visible fastening for external cladding of industrial and commercial buildings and for internal partition walls.

Technical specifications

Mec|Box complies with the European sandwich standard EN ISO 14509:2013 - Self-supporting sandwich panels with metal face sheets on both sides.

Approval for use | Approval Z-10.49-542

Profiling



Technical data

Panel thickness [mm]	Weight [kg/m ²]	Facings external/internal [mm]	Thermal transmittance U [W/m ² K] (Joint factor Ψ)		Reaction to fire	Airborne sound insulation Rw
			U without Ψ	U with Ψ		
30	9,82	0,50/0,50	0,73	0,90	B-s2,d0	25 dB*
40	10,24	0,50/0,50	0,55	0,64		
50	10,65	0,50/0,50	0,45	0,50		
60	11,07	0,50/0,50	0,37	0,40		
80	11,90	0,50/0,50	0,28	0,30		
100	12,73	0,50/0,50	0,23	0,23		
120	13,56	0,50/0,50	0,19	0,19		
150	14,80	0,50/0,50	0,15	0,15		

* in accordance with IFBS, professional rules for lightweight metal construction, GL

Characteristics and application

Mec|Box has excellent thermal insulation and high building material class according to DIN EN 13501-1.

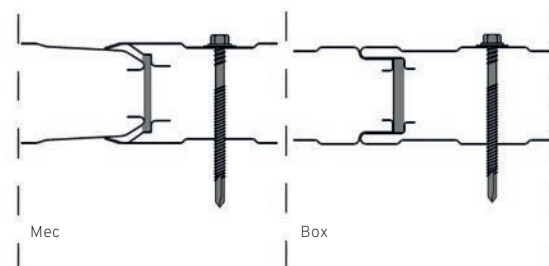
Mec|Box wall panels have a insulation made of rigid polyurethane foam and are ideally suited for use as walls of industrial and commercial buildings.

We use S350GD + Z275 galvanized steel sheet as the covering shells. As standard, we offer the covering shells with a polyester coating (25 μ m PE). Other coatings are available on request and taking into account the area of application.

Mec|Box panels are suitable for horizontal and vertical wall installation.

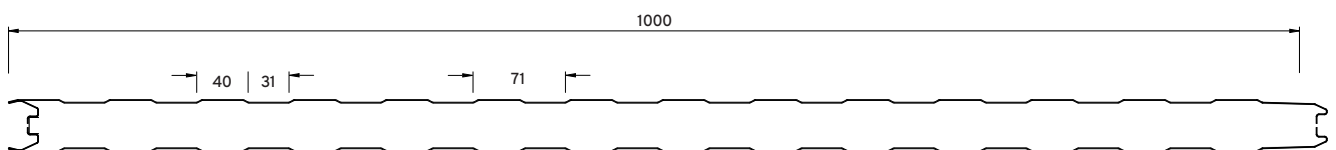
An overview of all possible profiles can be found on page 22 in the appendix.

Joint detail



MEC W|WA

MEC W|WA wall panels have an insulating core made of mineral wool and are suitable for facades of industrial and commercial buildings that require optimal fire resistance.



Cover width: 1.000 mm | Standard lengths: 2.000 mm - 13.500 mm | Other lengths available upon request

The expert in fire protection for your walls

Description

The self-supporting Mec W|WA wall panel has an insulating core of mineral wool and two metallic cover shells.

It is a sandwich panel with visible fastening for external cladding of industrial and commercial buildings and for internal partition walls.

Technical specifications

Mec W complies with the European sandwich standard EN ISO 14509:2013 - Self-supporting sandwich panels with metal face sheets on both sides. This standard does not include the acoustic variant Mec WA.

Approval for use Mec W | Approval Z-10.49-681

Profiling



Characteristics and application

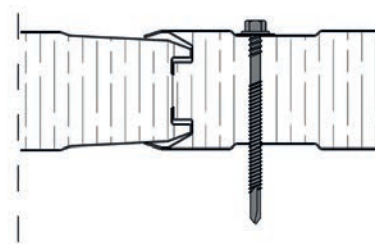
Mec W is characterized by high fire resistance and a high building material class according to DIN EN 13501-1.

Mec W|WA can be used individually or in combination as a sound-absorbing wall. The wall panel is also available as an acoustic panel, which provides excellent sound absorption due to the special structure of the inner shell (perforated). An overview of all possible profiles can be found on page 22 in the appendix.

We use strip galvanized sheet steel S250GD + Z275 as cover shells. As standard, we offer the cover shells with a polyester coating (25 µm PE). Other coatings are available on request.

If the acoustic panels Mec WA are used as outer wall of heated halls, their building physics need to be examined.

Joint detail



Technical data (Mec W)

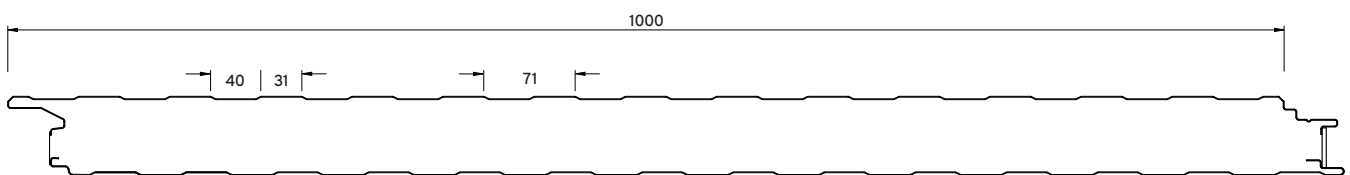
Panel thickness [mm]	Weight [kg/m ²]	Facings external/internal [mm]	Thermal transmittance U [W/m ² K]	Fire resistance	Reaction to fire	Airborne sound insulation Rw
50	15,81	0,60 / 0,50	0,87	EI30	A2-s1,d0	33 dB*
60	17,00	0,60 / 0,50	0,71			
80	19,40	0,60 / 0,50	0,53	EI60		33 dB*
100	21,80	0,60 / 0,50	0,42	EI120		33 dB*
120	24,20	0,60 / 0,50	0,35			
150	27,80	0,60 / 0,50	0,28	EI120		35 dB*
200	33,80	0,60 / 0,50	0,21			
240	38,60	0,60 / 0,50	0,18			

* Facing thicknesses used: 0,50 / 0,50 mm

Note: Due to its insulating core, the panel has a significantly higher weight than sandwich elements with PU rigid foam. Please request data for Mec WA.

SUPERTOP

SUPERTOP wall panels have an insulation made of rigid polyurethane foam and are particularly suitable for aesthetic facade solutions.



Cover width: 1.000 mm | Standard lengths: 2.000 mm - 13.500 mm | Other lengths available upon request

The visually appealing facade for your halls

Description

The Supertop wall panel has an insulating core made of rigid polyurethane foam (CFC- and HCFC-free) and two metallic cover shells. It is a sandwich panel for hidden fastening.

The panel is suitable for horizontal and vertical wall installation.

Technical specifications

Supertop complies with the European sandwich standard EN ISO 14509:2013 - Self-supporting sandwich panels with metal facings on both sides.

Approval for use | Approval Z-10.49-542

Profiling



Characteristics and application

Supertop panels have an excellent thermal insulation and high building material class according to DIN EN 13501-1.

Due to the hidden fastening and the associated aesthetic appearance, the panel is particularly suitable for sophisticated facade solutions.

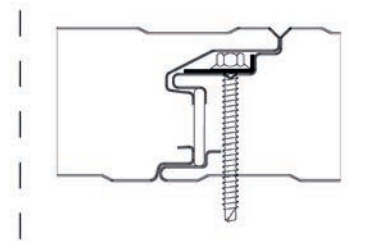
We use strip galvanized steel sheet S350GD + Z275 as cover shells.

As standard, we offer the cover shells with a polyester coating (25 µm PE).

Other coatings are available on request and taking into account the area of application.

Note: According to the building authority approval, load distribution plates have to be used and screws without seal.

Joint detail



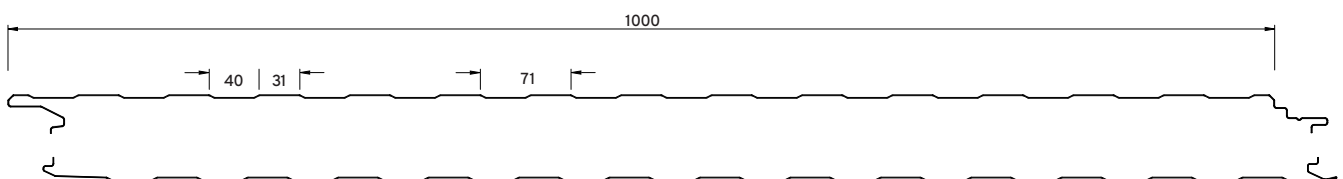
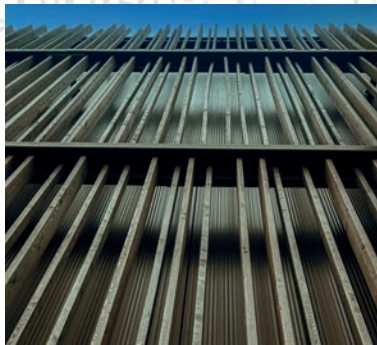
Technical data

Panel thickness [mm]	Weight [kg/m ²]	Facings external/internal [mm]	Thermal transmittance U [W/m ² K] (Joint factor Ψ)		Reaction to fire	Airborne sound insulation Rw
			U without Ψ	U with Ψ		
50	10,98	0,50/0,50	0,45	0,59	B-s2,d0	25 dB*
60	11,40	0,50/0,50	0,37	0,46		
80	12,22	0,50/0,50	0,28	0,31		
100	13,05	0,50/0,50	0,23	0,24		
120	13,88	0,50/0,50	0,19	0,20		
150	15,13	0,50/0,50	0,15	0,16		

* in accordance with IFBS, professional rules for lightweight metal construction, GL

SUPERTOP W|WA

SUPERTOP-W|WA wall panels have an insulating core made of mineral wool and, thanks to their hidden fixation, they are especially used for esthetic facades with an optimal fire resistance.



Cover width: 1.000 mm | Standard lengths: 2.000 mm - 13.500 mm | Other lengths available upon request

The elegant fire protection wall for office buildings and halls

Description

The Supertop W|WA wall panel has an insulating core made of mineral wool and two metallic cover shells. It is a sandwich panel with hidden fastening used for horizontal and vertical wall installation. Load distribution plates has to be used in accordance with the building authority approval.

Technical specifications

Supertop W complies with the European sandwich standard EN ISO 14509:2013 - Self-supporting sandwich panels with metal facings on both sides. This standard does not include the Supertop WA acoustic variant.

Approval for use Supertop W | Approval Z-10.49-681

Profiling



Characteristics and application

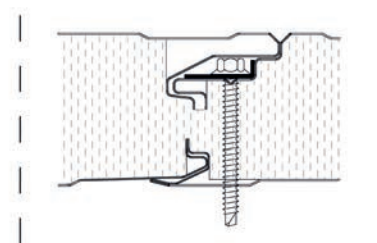
Supertop W is characterized by high fire resistance duration and fire protection class of A2-s1,d0.

The wall panel is also available as an acoustic panel, which provides excellent sound absorption due to the special structure of the inner shell (perforated). It can thus be used as a sound-absorbing wall individually or in combination.

We use strip galvanized steel sheet S250GD + Z275 as the cover shells. As standard, we offer the cover shells with a polyester coating (25 µm PE). Other coatings are available on request and respecting the area of application.

If the Supertop WA acoustic panels are used as an exterior wall of heated halls, their building physics need to be examined.

Joint detail



Technical data (Supertop W)

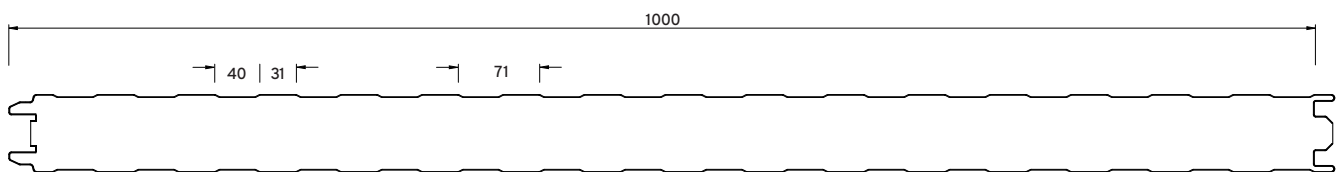
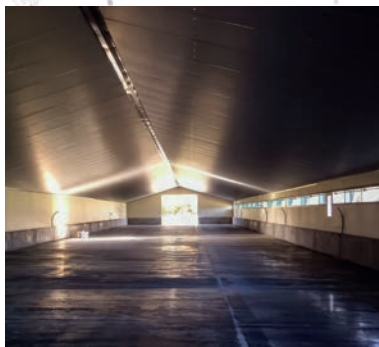
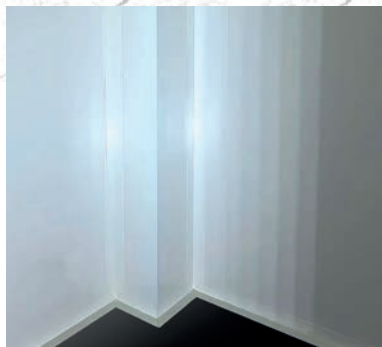
Panel thickness [mm]	Weight [kg/m ²]	Facings external/internal [mm]	Thermal transmittance U [W/m ² K]	Fire resistance	Reaction to fire	Airborne sound insulation Rw
50	16,11	0,60 / 0,50	1,03		A2-s1,d0	
60	17,31	0,60 / 0,50	0,83			
80	19,71	0,60 / 0,50	0,56			
100	22,11	0,60 / 0,50	0,44	EI60		35 dB*
120	24,51	0,60 / 0,50	0,37			
150	28,11	0,60 / 0,50	0,29			
200	34,11	0,60 / 0,50	0,22			
240	38,91	0,60 / 0,50	0,18			

* Facing thicknesses used: 0,60 / 0,50 mm

Note: Due to its insulating core, the panel has a significantly higher weight than sandwich elements with PU rigid foam. Please request data for Supertop WA.

FRIGO

FRIGO wall panels have an insulation made of polyurethane rigid foam and are made for cold rooms or rooms with constant temperature with optimal water and air tightness.



Standard cover width: 1.150 mm | Standard lengths: 2.000 mm - 13.500 mm | Other lengths available upon request

The panel for really cool walls

Description

The self-supporting Frigo wall panel has an insulation core made of rigid polyurethane foam (CFC- and HCFC-free) and two metallic cover shells.

Frigo is a sandwich panel with visible fastening and is suitable for use in cold storage.

Technical specifications

Frigo complies with the European sandwich standard EN ISO 14509:2013 - Self-supporting sandwich panels with metal face sheets on both sides.

Approval for use | Approval Z-10.49-542

Profiling

Outer shell lined & Inner shell flat



Technical data

Panel thickness [mm]	Weight [kg/m ²]	Facings external/internal [mm]	Thermal transmittance U [W/m ² K] (Joint factor Ψ)		Reaction to fire	Airborne sound insulation Rw
			U without Ψ	U with Ψ		
60	12,86	0,50/0,50	0,38	0,41	B-s2,d0	25 dB*
80	13,82	0,50/0,50	0,28	0,30		
100	14,77	0,50/0,50	0,23	0,24		
120	15,73	0,50/0,50	0,19	0,20		
150	17,16	0,50/0,50	0,15	0,16		
180	18,59	0,50/0,50	0,13	0,14		
200	19,55	0,50/0,50	0,11	0,12		
240	21,45	0,50/0,50	0,10	0,10		

* in accordance with IFBS, professional rules for lightweight metal construction, GL

Characteristics and application

Frigo is a visibly fixed wall panel and is used for cold rooms or rooms with constant temperature.

The joint geometry ensures optimal water and air tightness. The panel thus meets all hygiene and cleaning requirements.

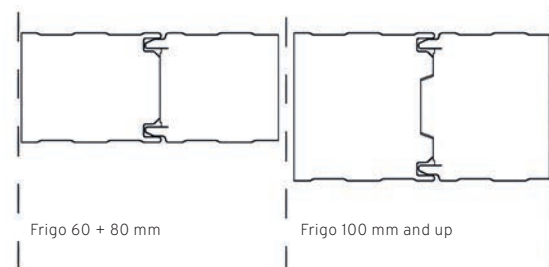
We use strip galvanized sheet steel S350GD + Z275 as the cover shells.

As standard, we offer the cover shells with a polyester coating (25 μ m PE).

Other coatings are available on request and respecting the area of application.




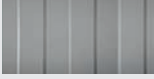



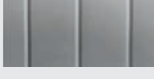

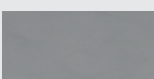
The cold storage panel is produced with a labyrinth joint, from a core thickness of 100 mm the joint is additionally foamed.

Joint detail



PROFILES

Our panel profiles

Profile type	Penta		Mono-penta		Agro-panel		Penta WIWA		Mec		Box		Mec WIWA		Super-top		Supertop WIWA		Frigo		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
  profiled	●		●		●		●														
  lined		●						●	●	●	●	●	●	●	●	●	●	●	●	●	●
  microlined									●	●			●		●						
  planked									●	●					●	●					
 gofrato									●	●											
 flat*		●		●		●		●	●	●	●	●	●	●	●	●	●	●	●	●	●

Columns **A** stand for the external sheet, columns **B** for the internal sheet of the panels.

* The design of the internal sheet for acoustic panels (perforated), Monopenta (Alufoil) or Agropanel (GFRP) always corresponds to the flat profile type.

NOTES

Our standard colors

Colors similar to RAL		Penta		Mono-penta		Agro-panel		Penta WIWA		Mec		Box		Mec WIWA		Super-top		Supertop WIWA		Frigo	
Color group	Shades	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
1	9002	●	●	●		●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	9010		●						○	●	●	●	●	●	○	●	●	●	○	●	●
	1015									●		●		●		●		●			
	7035									●		●		●		●		●			
2	9006	●		●		●		●		●		●		●		●		●			
	9007	●		●		●		●		●		●		●		●		●			
3	3009	●		●		●		●													
	7016	●		●		●		●		●		●		●		●		●			

Columns **A** stand for the external sheet, columns **B** for the internal sheet of the panels.
 ○ The color similar to RAL 9010 is not available for Penta WA, Mec WA and Supertop WA.

Quality

Our wall panels are made of high quality materials and are subject to constant quality control.

Limit dimensions

The limit dimensions of our products comply with the specifications for tolerances of DIN EN 14509. All materials used by us comply with the technical regulations and standards.

Corrosion protection

Our panels have a standard corrosion protection system: C3 = moderate - urban and industrial atmosphere with moderate contamination, see IFBS, Fachregeln des Metallleichtbaus, GL I 4 I 7, assessed according to the classification in corrosion protection categories according to DIN EN 12944-2 (depending on the protection period) and DIN 55634 (atmospheric exposure).

Element cutback / Installation direction

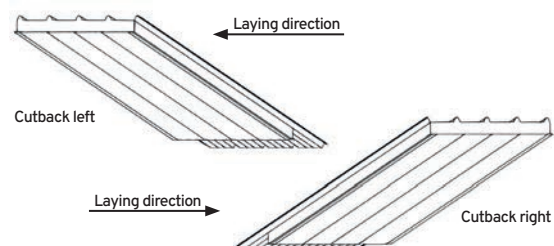
Element cutback for roof panels involves three applications, transverse joints, eave cutback and thermal separation cuts.

Transverse joints: Cutbacks ≥ 200 mm, are necessary for roofs with long roof sides. Two panels are overlapped to perform roof length over 20 m.

Eave cutback: < 200 mm, in the eaves area, an elegant solution for the design of water drainage during rain.

Thermal cutback: cutback at the inner shell max. 300 mm as required to prevent cold bridges.

For the factory made back-cut, it is necessary to specify the direction of panels installation on the roof before preparing the cutting list.



NOTES

Packing

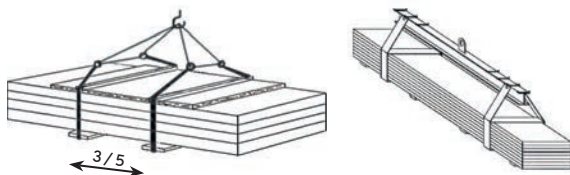
The number of panels per bundle depends on the thickness of the panels. The maximum package height is 1,000 mm. The bundles are packed in such a way that they make the best use of the truck's loading space. Our standard packaging is made of polystyrene blocks at a distance of about 1 m (support for the package), stretch film, a covering on the top and carton sheets as a protection for the underside of the bundle. Special packaging must be discussed before production.

Delivery

Unless otherwise agreed, the sandwich panels are delivered by truck to the construction site/unloading point. The elements are to be unloaded by the customer in accordance with our unloading conditions and checked for completeness and any transport damage. Defects are to be reported immediately.

Unloading

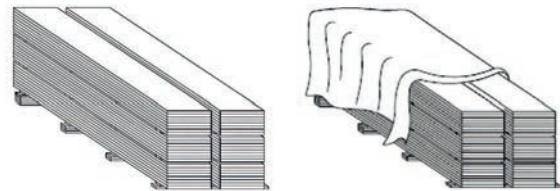
Unloading must be carried out in accordance with our unloading conditions. It must be done carefully and without damaging the panels. In order to avoid damage to the bottom edges, we recommend the use of cross-bars, straps and wooden boards as a support and for spreading the straps. The wooden boards must be at least 200/250 mm wide and 3-4 cm longer than the width of the bundle. The use of steel cables is prohibited!



For panels < 7 m we recommend the use of a forklift. The length of the forks must be at least equal to the width of the bundle. The distance between the forks must fit proportionally to the length of the bundle and be at least half a bundle length.

Transport and storage

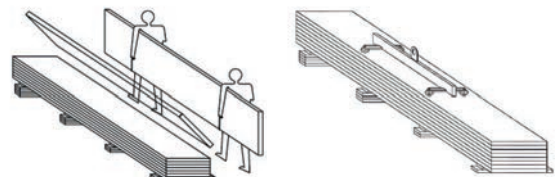
After unloading, the bundles must be stored on leveled surfaces with a maximum of three bundles on top of each other. To avoid water accumulation in the package, we recommend slightly inclining the packages in the longitudinal direction (approx. 5%). The maximum span of the bundles to be stored is 2 m. The side distance to the next bundles to be stored should be at least 40 cm.



The panels must be stored in a dry place under a roof. If this is not possible, the panels should be protected with tarpaulins or other appropriate covers. In dry hours, these should be removed to allow ventilation and prevent from condensation.

Galvanized panels suffer particularly from moisture. We recommend immediate use of these panels. If you notice white spots or zinc oxide, it can be washed off with suitable detergents and water. The panels are then dried with a cloth. Preferably, Vaseline should then be applied to the affected cover panel.

We do not assume any responsibility for storage damage.



Transport of individual panels must be carried out manually horizontally across the width or by crane and suction traverse.

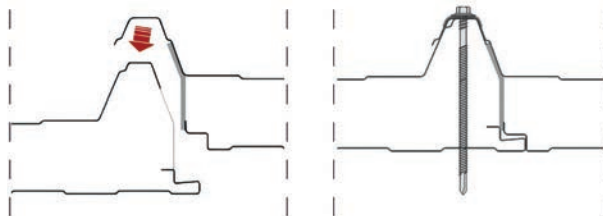
NOTES

Assembly

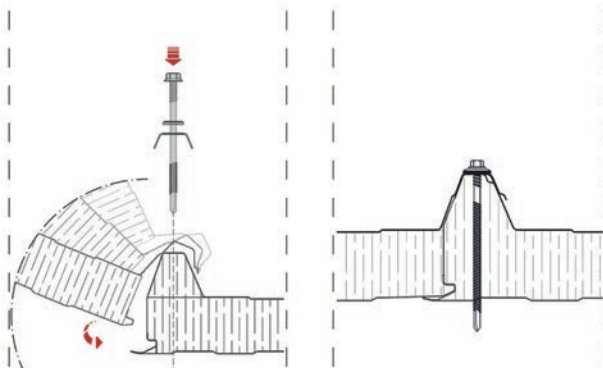
During installation, the IFBS guidelines for the planning and construction of roof, wall and ceiling made of profiled metal panels must be observed. The installation guidelines of the roofing and the industrial construction guidelines also to be applied.

1. Special features for the installation of

● Roof



Penta, Monopenta, Agropanel



Penta W|WA

● Wall

Supertop, Supertop W|WA

Load distribution plates as well as screws without seal must be used in accordance with the building authority approval.

Frigo

The joint of the cold storage panels is made in such a way that the panels can be sealed and glued to each other in the joint as well as to the visible groove of the joint from the outside.

2. Protective film

The panels are provided with a protective film on the outside and inside during production. This must be removed during installation or at the latest 4 weeks after delivery to prevent residues of the film adhesive (especially after longer periods of intensive sunlight).

3. Adjustment / Cutting

Adjustments to the panels can be made on site. Fitting cuts may only be made with suitable tools such as a jigsaw or hand-held circular saw.

Saw blades should have fine teeth to produce a cold cut.



Machining with a cut-off saw is prohibited, as this damages the zinc layer and the corrosion protection is then no longer given. The use of a cut-off grinder emits glowing chips which are burned into the surface of the panels. Such damage will not be accepted as a claim.

4. Type of laying and fastening

As a rule, installation should be made against the weather direction in order to minimize weather influences on the joint.

Roof panels are installed with a crane and lifting clamps or suction traverse. Wall panels can be installed either vertically or horizontally. Installation is carried out manually with a lifting platform or crane using U-lifting gear (incl. screw lock), installation clamps or vacuum traverses. Horizontal installation is carried out from bottom to top.

In the case of panels with a mineral wool core, it should be noted that installation is made more difficult due to the high panel weight.

Before installing the sandwich panels, the necessary sealing tapes for sealing the panels to the substructure must be applied according to the installation plan. For fastening the sandwich panels into the substructure, stainless screws according to the general building approval No. Z-14.4-407 or the European evaluation should be used (Ü- or CE-marked screws).

ABOUT US

Trier Insulated Panels

Founded in 2014, Trier Insulated Panels GmbH has been producing sandwich panels for roofs and facades at its site in Föhren near Trier since 2017. Equipped with high-performance production facilities, we supply customers and construction sites throughout Europe. With the high professionalism of our team and the central location of our site, we are a reliable partner for our customers.

Since the beginning of 2023, we have been part of the Construction division of the ArcelorMittal Group. As part of a global company, we have access to the Group's reliable supply chains, sustainably produced steel, a wide range of material specifications and R&D capabilities. New opportunities that help to further strengthen and develop the partnership with our customers.

Based on more than 50 years of experience in the development and production of high-quality lightweight products, we manufacture a full range of sandwich panels with PIR and mineral wool insulation. Our panels have excellent thermal properties. They meet the necessary fire safety requirements and, thanks to their high degree of prefabrication, make an invaluable contribution to economical, energy-efficient and sustainable construction. With the certificates and approvals of our panels, consistent quality assurance and regular external monitoring, we guarantee customers and builders a building product of consistently high quality.

Our production facility is located at the intersection of important European transport axes. This allows us to reach any destination throughout Europe quickly and reliably. The nearby Moselle port of Trier provides good connections to international ports for shipping deep-sea containers for projects worldwide.

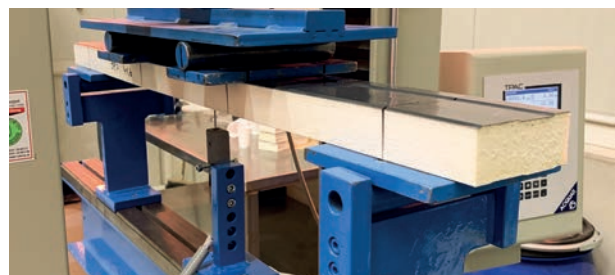
Ongoing investments in our plant technology ensure high quality and continuous development of our products. Flexibility and active customer service are our core business.

We meet the different market and customer requirements with a wide range of different insulation materials and facing combinations, color shades and coating systems. This results in versatile panels for roofs and facades for all building envelope applications.

Our plant in Föhren



The modern hall in the Föhren industrial park



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CONTACT

Trier Insulated Panels GmbH

Konrad-Zuse-Straße 2
54343 Föhren
Fon: +49 (0) 6502 999 85 0
Mail: info@italpanelli.de

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Subject to technical changes.

Sandwich panels 01-10EN/12.23/200