



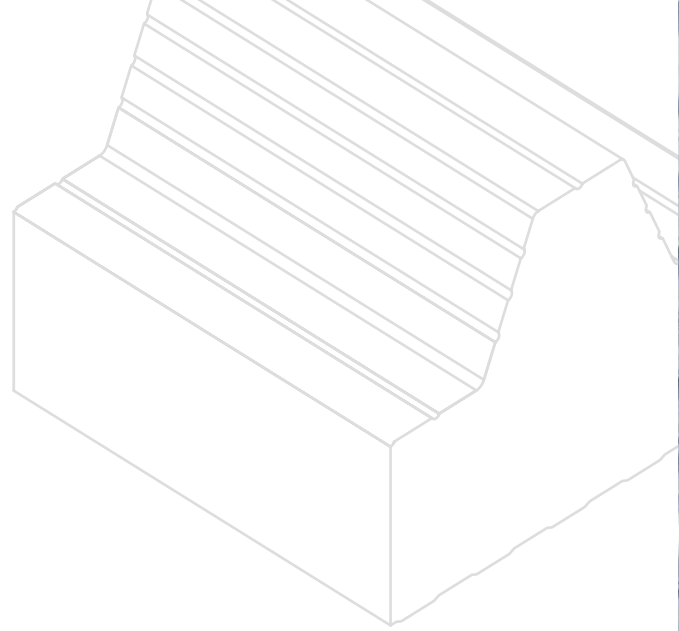
FORTELIA

SHAPED TO OUTPERFORM

PRODUCTS and DATA SHEETS

FORTELIA

Fortelia for Industrial Sloping Roof

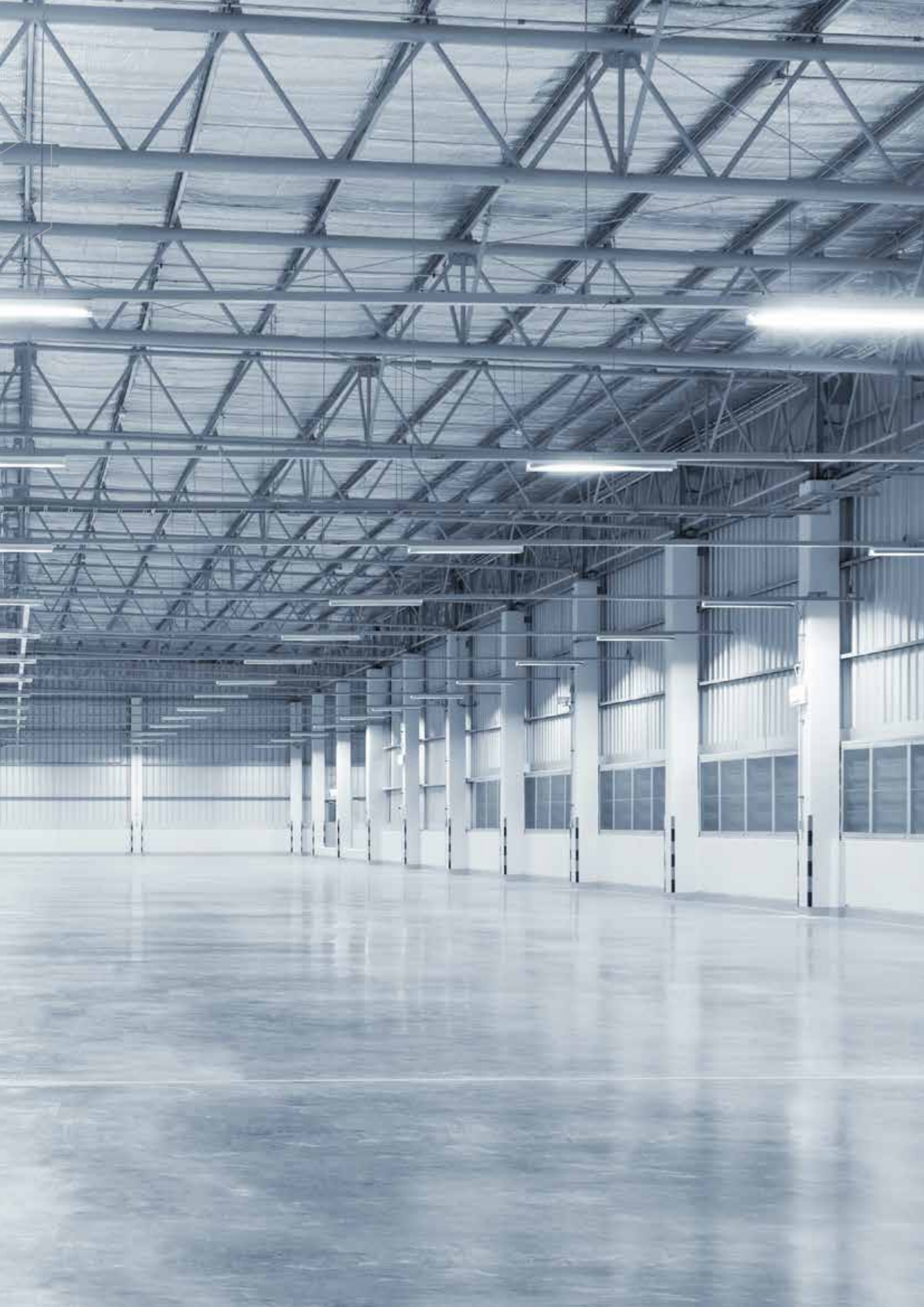


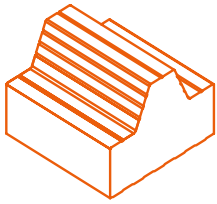
Designing a roof is a crucial moment in the development of a new building. FORTELIA offers products and solutions developed to obtain the maximum performance with regard to the world of prefabrication and off-site construction. The geometry of the cross-section provides FORTELIA products with high performance in terms of stiffness and resistance to loads.

Thanks to these factors, it is possible to create roofs made of prefabricated monolithic elements, thereby reducing the load-bearing structure texture and ensuring high design flexibility. This results in easier construction and installation.

This also results in lower costs during the construction phase.

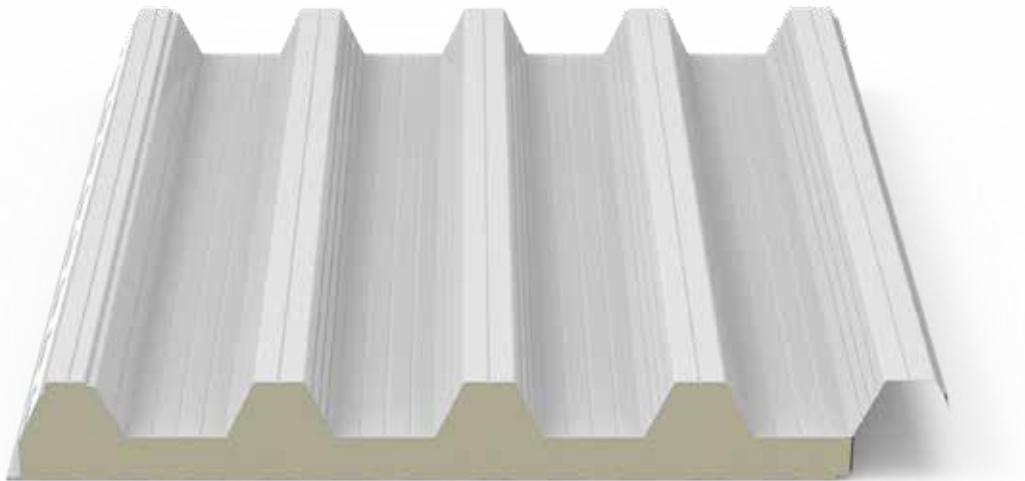






Polyurethane roofing application

Fortelia Roof Performance



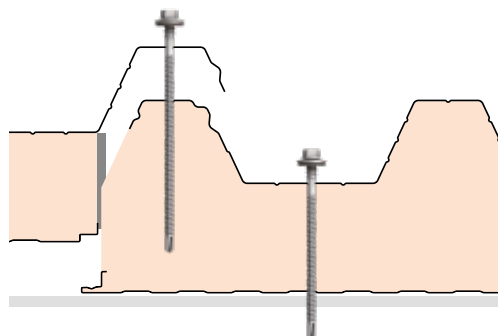
TECHNICAL FEATURES

EXTERNAL FACING	
Material	Prepainted steel metal sheet
Minimum Thickness	0,5 mm
Maximum Thickness	1,0 mm
INTERNAL FACING	
Material	Prepainted steel metal sheet
Minimum Thickness	0,5 mm
Maximum Thickness	0,6 mm
POLYURETANE FOAM INSULATION	
Type	PUR / PIR Foam
Density	40 Kg/m ³

COUPLING DETAIL



FASTENING



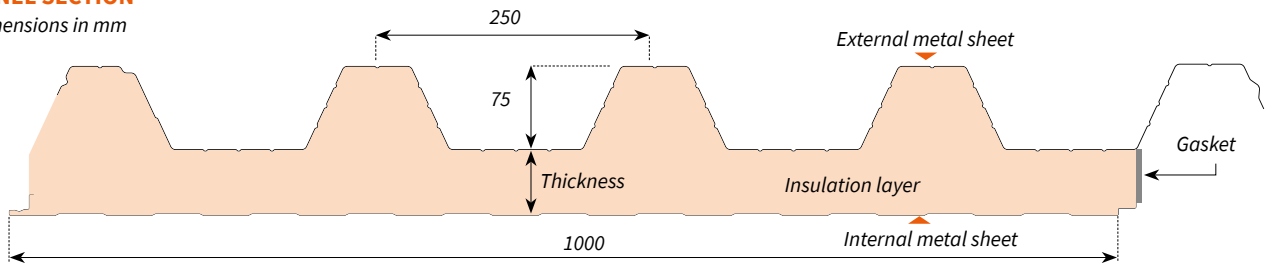
Self-drilling screw; with
 Ø19mm metal washer.
 Number and position
 of fastenings must be
 evaluated by Designer.

FORTELIA ROOF PERFORMANCE - TECHNICAL DATA

Panel Nominal Thickness	mm	60	80	95	120	140	160	
U-Value	W/m²K	0,28	0,22	0,19	0,15	0,13	0,12	
Weight	0,6 + 0,6 mm	Kg/m²	14,9	15,7	16,3	17,3	18,1	18,9
	0,8 + 0,6 mm	Kg/m²	17,2	18,1	18,6	19,6	20,4	21,2
Fire resistance		-	REI 30					
Roof		Broof t2 (PU) - Broof t1 t2 t3 (PIR)						
Fire reaction		B-s2; d0						

PANEL SECTION

Dimensions in mm



LOAD SPAN PERFORMANCE

Above load values are characteristics, therefore they must be compared with specific project loads before applying safety factors*.

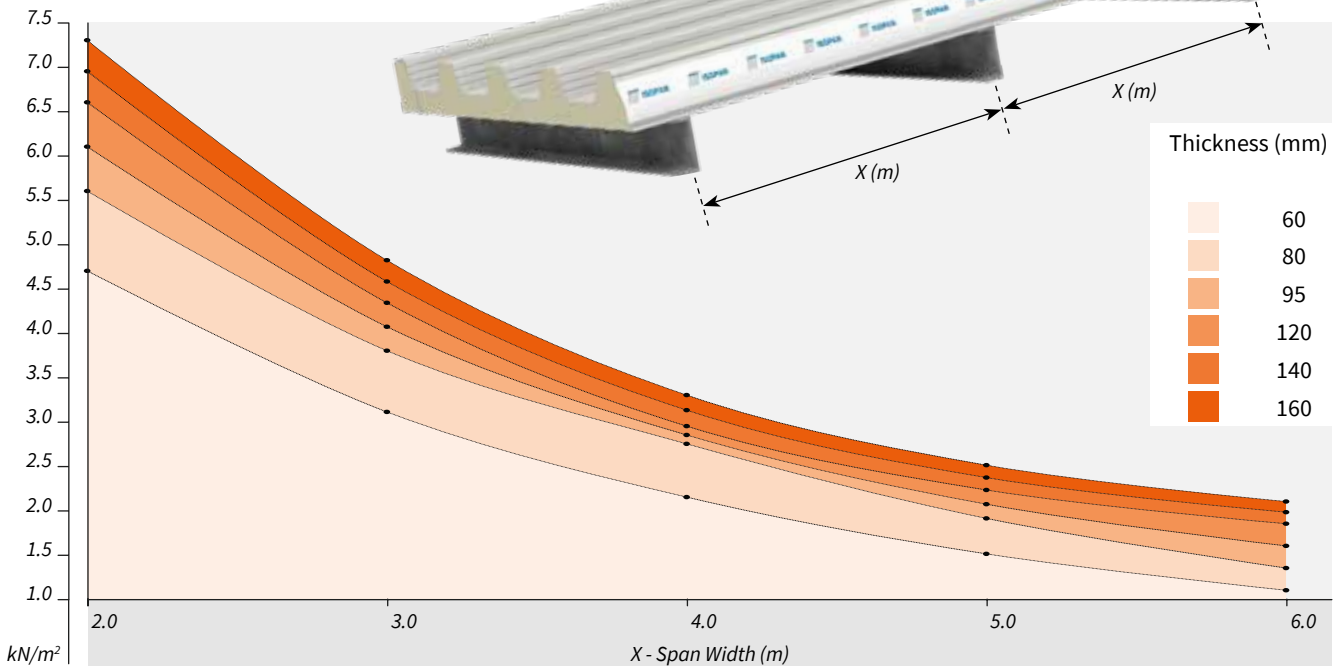
Self-weight of the panels is already considered. Linear interpolation may be used to establish in-between span values

The calculation has been performed in accordance with the Annex E of EN 14509:2013 standard, without including thermal loads.

Maximum allowed deformation in the span: $L / 200$

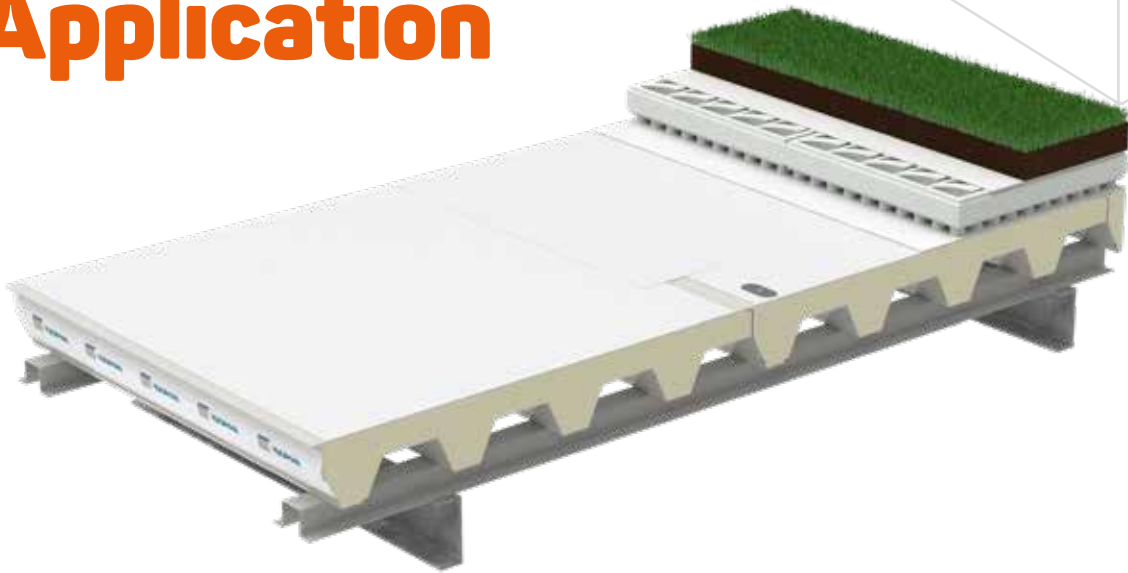
External Metal sheet thickness: 0,5 mm

Internal Metal sheet thickness: 0,5 mm



*The graphs and values above are to be considered indicative of the mechanical behaviour of the product, please take into account that different support width have been considered (max= 240 mm), so for specific details and further analysis please do not hesitate to contact Isopan.

Fortelia for Flat Roof Application



A flat roof is a construction solution that has a great architectural and functional impact. Making use of the outdoor space above the roof has become very important in recent years, both with regard to the individual building, but above all with regard to the urban context into which it fits.

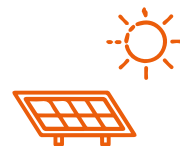
FORTELIA offers innovative solutions for the world of flat roofs, making the most of the performance characteristics of the geometric cross-section. The high resistance to loads and the quick installation are cornerstones for creating high-performance roofs.



Thanks to Fortelia, the load-bearing properties of the roof increase up to 50% more than a roof made with traditional prefabricated sandwich panels.



As a result of improved static performance of the products and the resistance to water infiltrations, the GreenROOF systems can be an important solution to achieve greater value and increased performance.



In addition, the possibility of making full use of the flat roof surfaces enables installation of renewable energy systems.



Choose your Fortelia Flat Roof

FORTELIA FLAT ROOF PVC
FORTELIA FLAT ROOF TPO



PATENTED
SOLUTION

With FORTELIA FLAT ROOF you can enjoy the patented system of pre-coupling between the sheet and synthetic PVC OR TPO membrane:

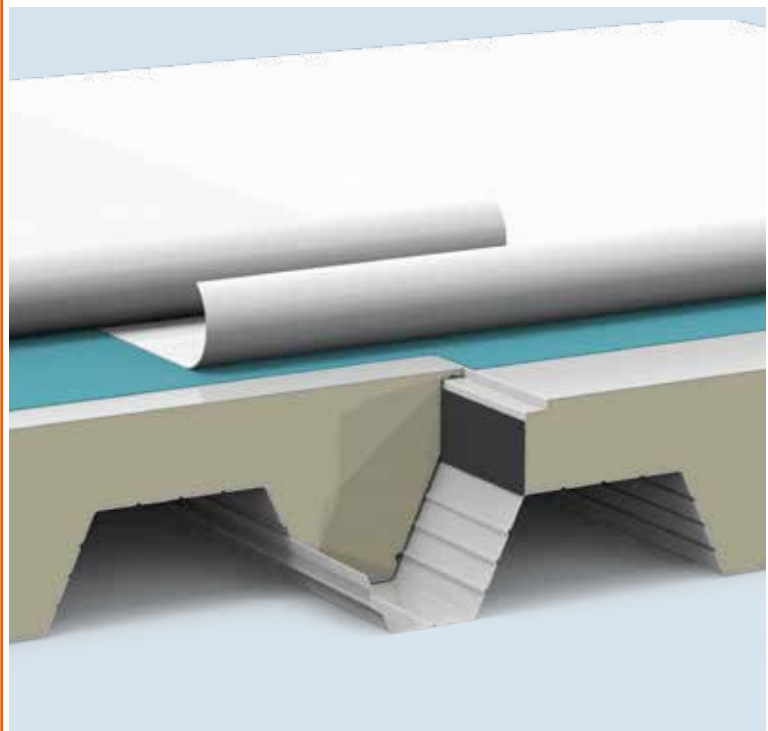
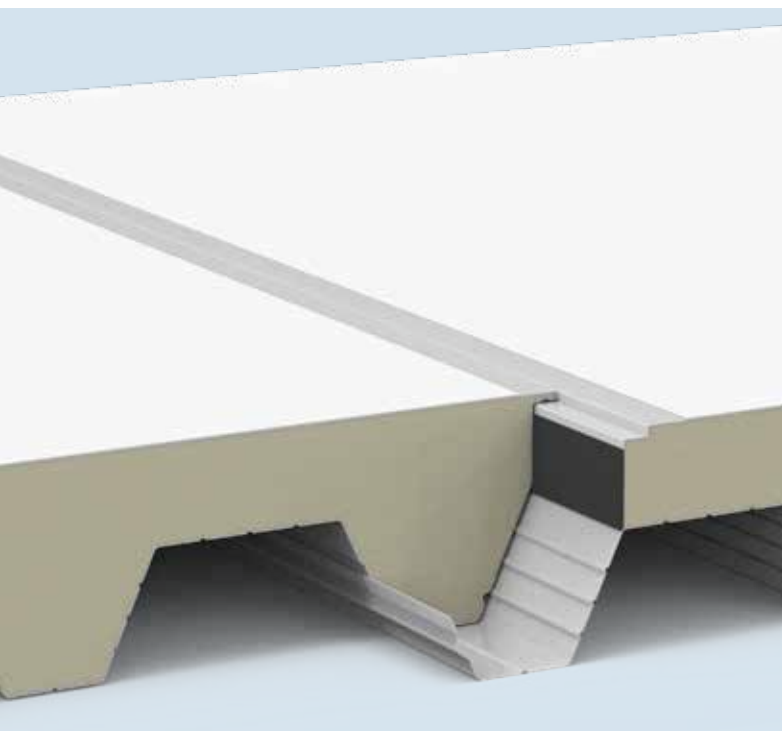
- Quick installation;
- Adhesion of the membrane to the metal sheet;
- Mechanical and foot traffic resistance of the surface membrane;
- Resistance to water infiltrations;
- No risk of interstitial humidity between sheet and membrane

FORTELIA FLAT ROOF DEK



Thanks to the flat and smooth external metal layer, FORTELIA FLAT ROOF DEK allow the on-site installation of Synthetic Membrane.

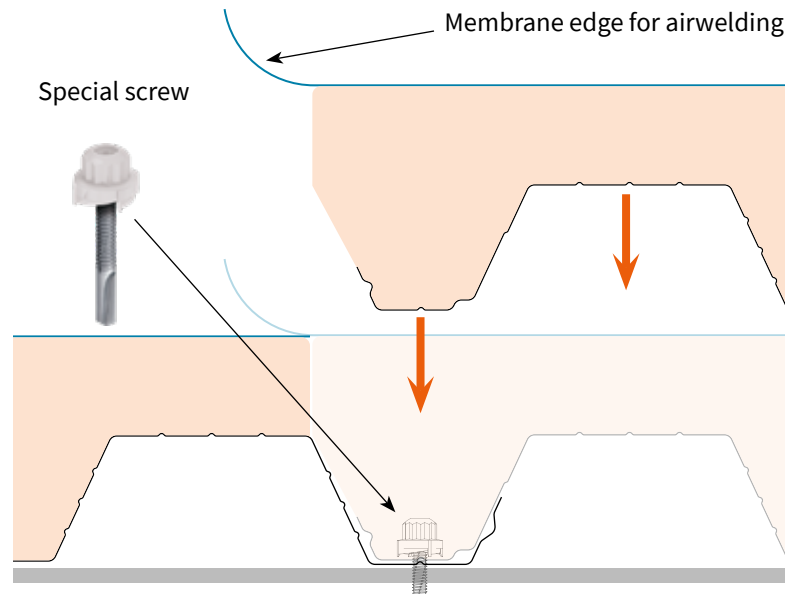
Suitable for on-site synthetic membrane installation



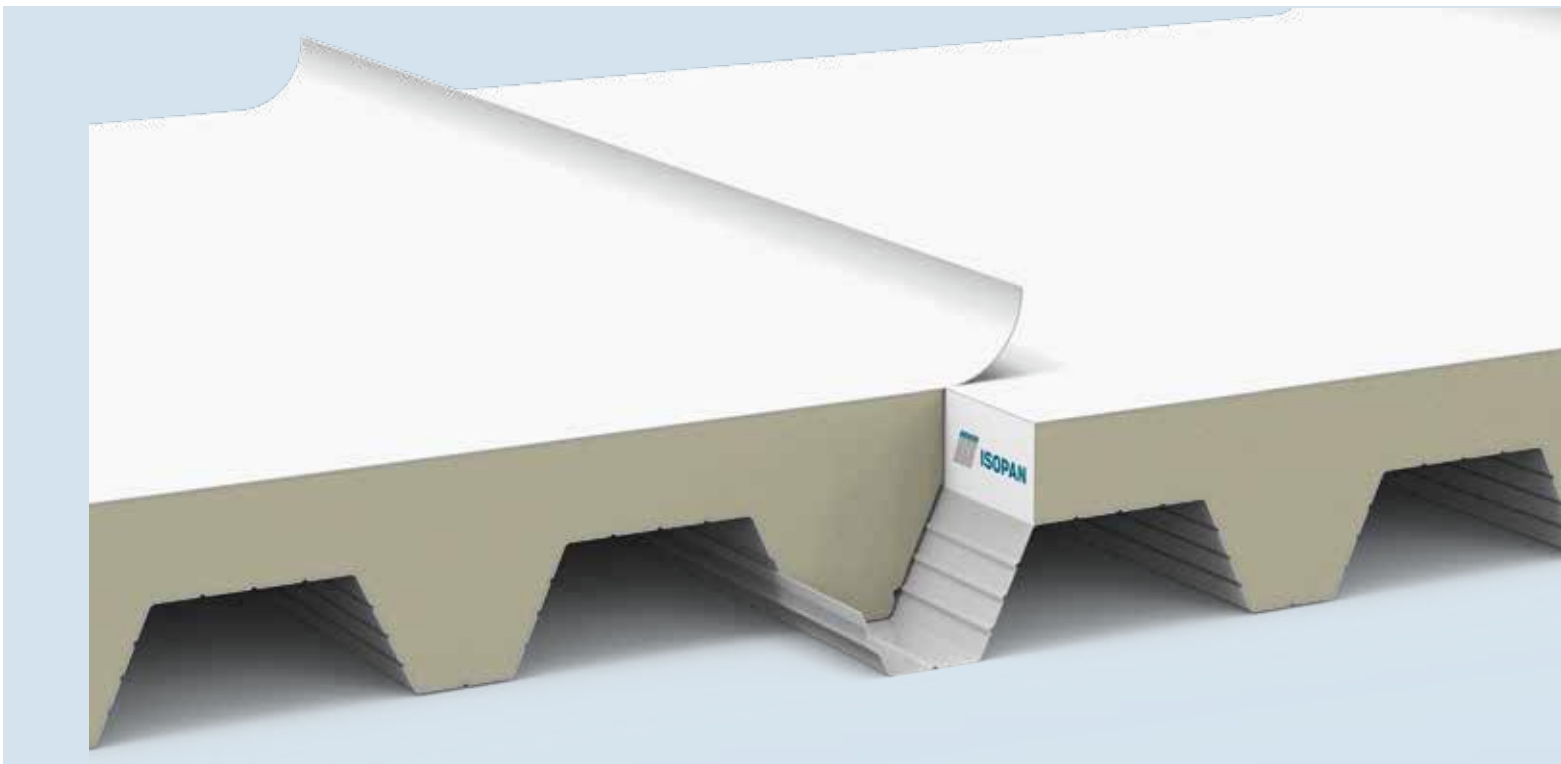
Flat Roof with Single metal sheet

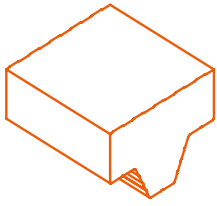
FORTELIA SYNTH

Panel designed for the construction of flat or low-slope roofs, featuring excellent waterproofing properties and, at the same time, high thermal insulation values. It is a panel with corrugated metal sheet on the internal side and a synthetic membrane (in PVC or TPO) on the outside. Insulation with polyurethane foam.



Panel Nominal Thickness	mm	60	80	95	120	140	160
U-Value	W/m ² K	0,28	0,22	0,19	0,15	0,13	0,12
Weight	0,8 mm Kg/m ²	14,4	15,1	15,6	16,6	17,4	18,2





Polyurethane flat roof application

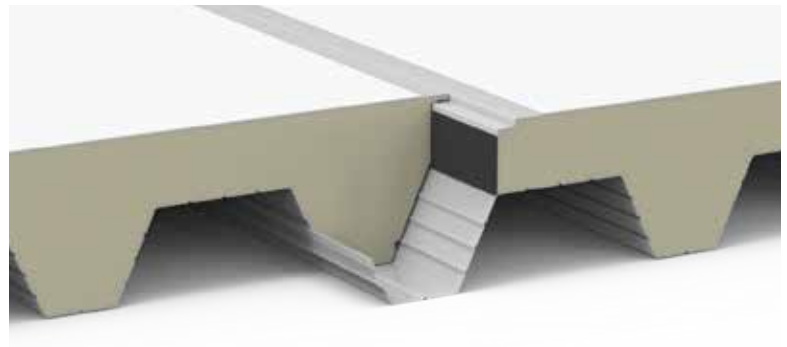
Fortelia Flat Roof Pvc/Tpo



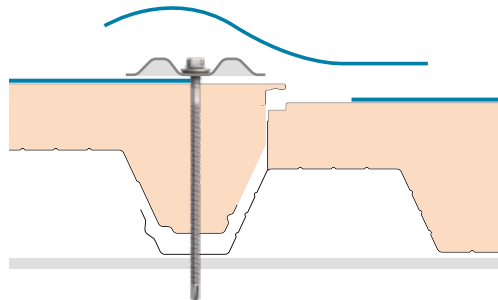
TECHNICAL FEATURES

EXTERNAL FACING	
Material	Prepainted steel metal sheet with Synthetic Layer
Synthetic Coating	PVC or TPO
Metal Thickness	0,8 mm
INTERNAL FACING	
Material	Prepainted steel metal sheet
Minimum Thickness	0,5 mm
Maximum Thickness	1,0 mm
POLYURETANE FOAM INSULATION	
Type	PUR / PIR Foam
Density	40 Kg/m ²

COUPLING DETAIL



FASTENING



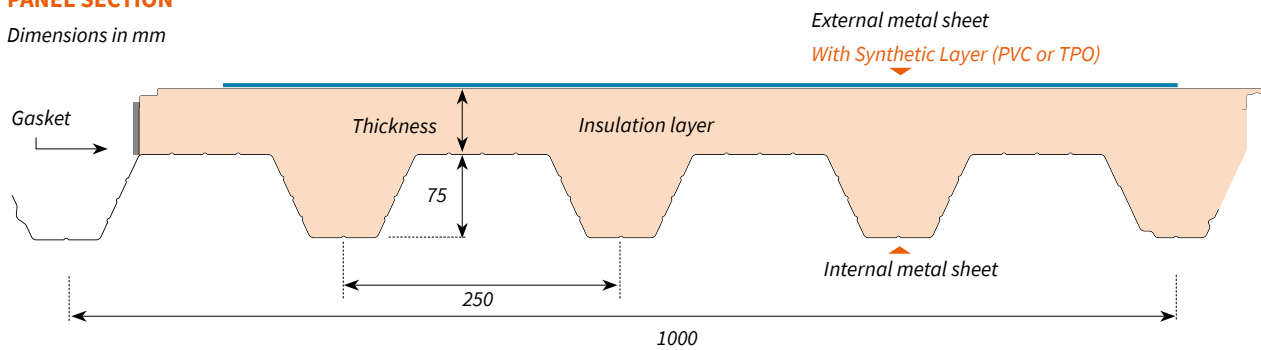
Self-drilling screw; with Metal Plate 82x40mm Type-F and Pontage strip. Number and position of fastenings must be evaluated by Designer.

FORTELIA FLAT ROOF - TECHNICAL DATA

Panel Nominal Thickness	mm	60	80	95	120	140	160	
U-Value	W/m²K	0,28	0,22	0,19	0,15	0,13	0,12	
Weight	0,8 + 0,8 mm	Kg/m²	19,7	20,5	21,1	22,1	22,9	23,7
Fire resistance		-	REI 15					
Broof		Broof (t2) - (with PVC coating)						
Fire reaction		B-s1; d0 - (with PVC coating)						

PANEL SECTION

Dimensions in mm



LOAD SPAN PERFORMANCE

Above load values are characteristics, therefore they must be compared with specific project loads before applying safety factors*.

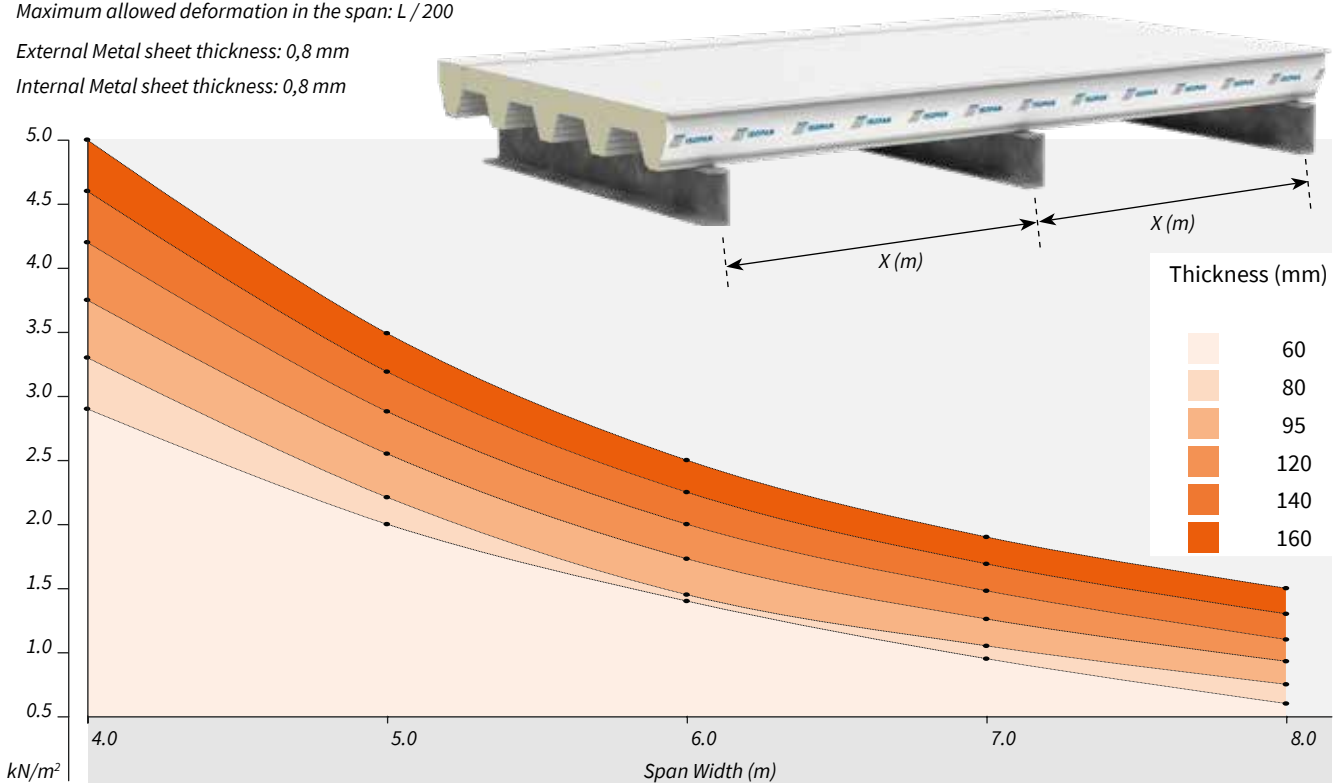
Self-weight of the panels is already considered. Linear interpolation may be used to establish in-between span values

The calculation has been performed in accordance with the Annex E of EN 14509:2013 standard, without including thermal loads.

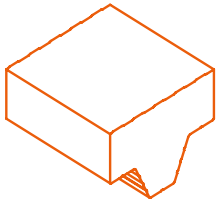
Maximum allowed deformation in the span: $L / 200$

External Metal sheet thickness: 0,8 mm

Internal Metal sheet thickness: 0,8 mm

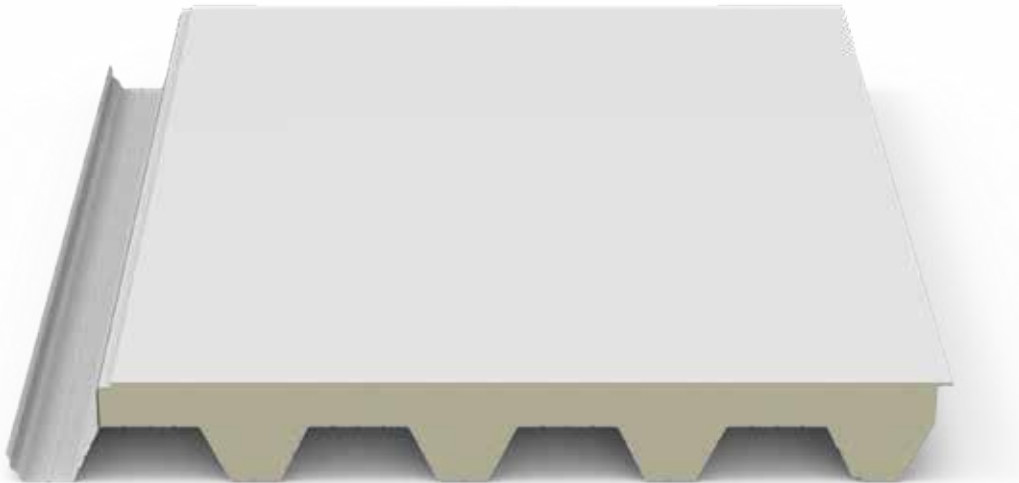


*The graphs and values above are to be considered indicative of the mechanical behaviour of the product, please take into account that different support width have been considered (max= 240 mm), so for specific details and further analysis please do not hesitate to contact Isopan.



Polyurethane flat roof application

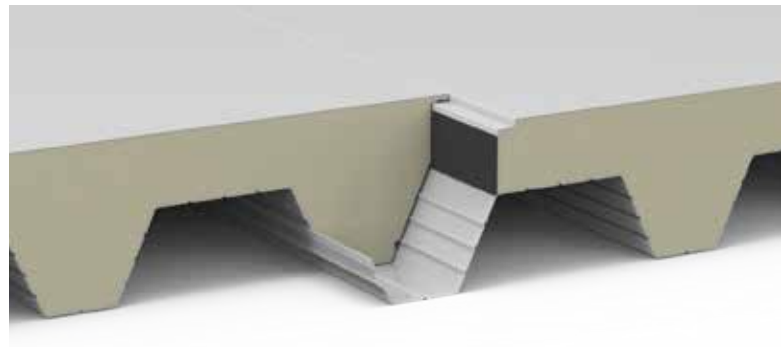
Fortelia Flat Roof Dek



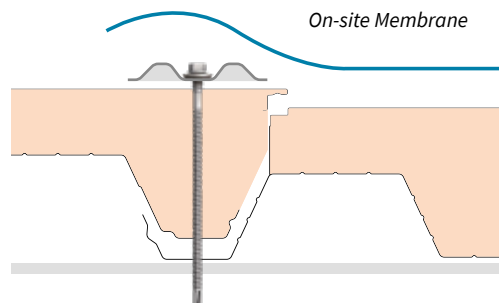
TECHNICAL FEATURES

EXTERNAL FACING	
Material	Prepainted steel metal sheet
Minimum Thickness	0,5 mm
Maximum Thickness	0,8 mm
INTERNAL FACING	
Material	Prepainted steel metal sheet
Minimum Thickness	0,5 mm
Maximum Thickness	1,0 mm
POLYURETAHNE FOAM INSULATION	
Type	PUR / PIR Foam
Density	40 Kg/m ³

COUPLING DETAIL



FASTENING



On-site Membrane

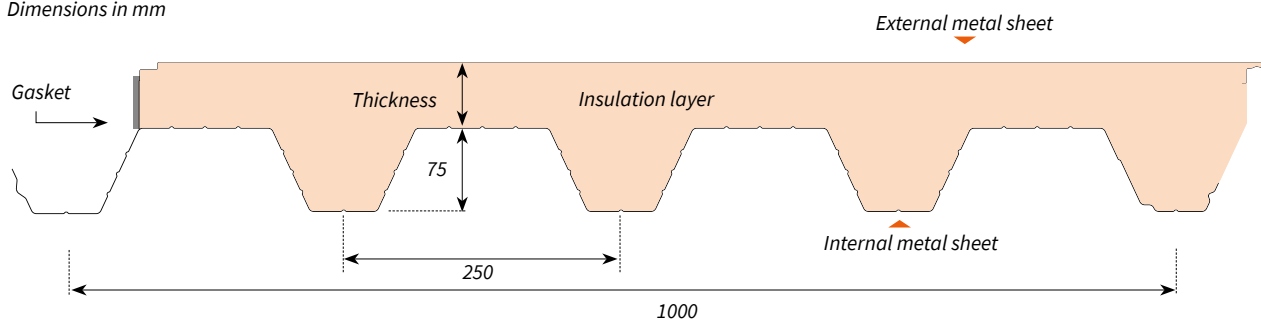
Self-drilling screw; with Metal Plate 82x40mm Type-F and Pontage strip. Number and position of fastenings must be evaluated by Designer.

FORTELIA FLAT ROOF - TECHNICAL DATA

Panel Nominal Thickness	mm	60	80	95	120	140	160	
U-Value	W/m²K	0,28	0,22	0,19	0,15	0,13	0,12	
Weight	0,6 + 0,6 mm	Kg/m²	14,9	15,7	16,3	17,3	18,1	18,9
	0,8 + 0,6 mm	Kg/m²	17,2	18,1	18,6	19,6	20,4	21,2
Broof		Broof (t2)						
Fire reaction		B-s1; d0 - (with PVC coating)						

PANEL SECTION

Dimensions in mm



LOAD SPAN PERFORMANCE

Above load values are characteristics, therefore they must be compared with specific project loads before applying safety factors*.

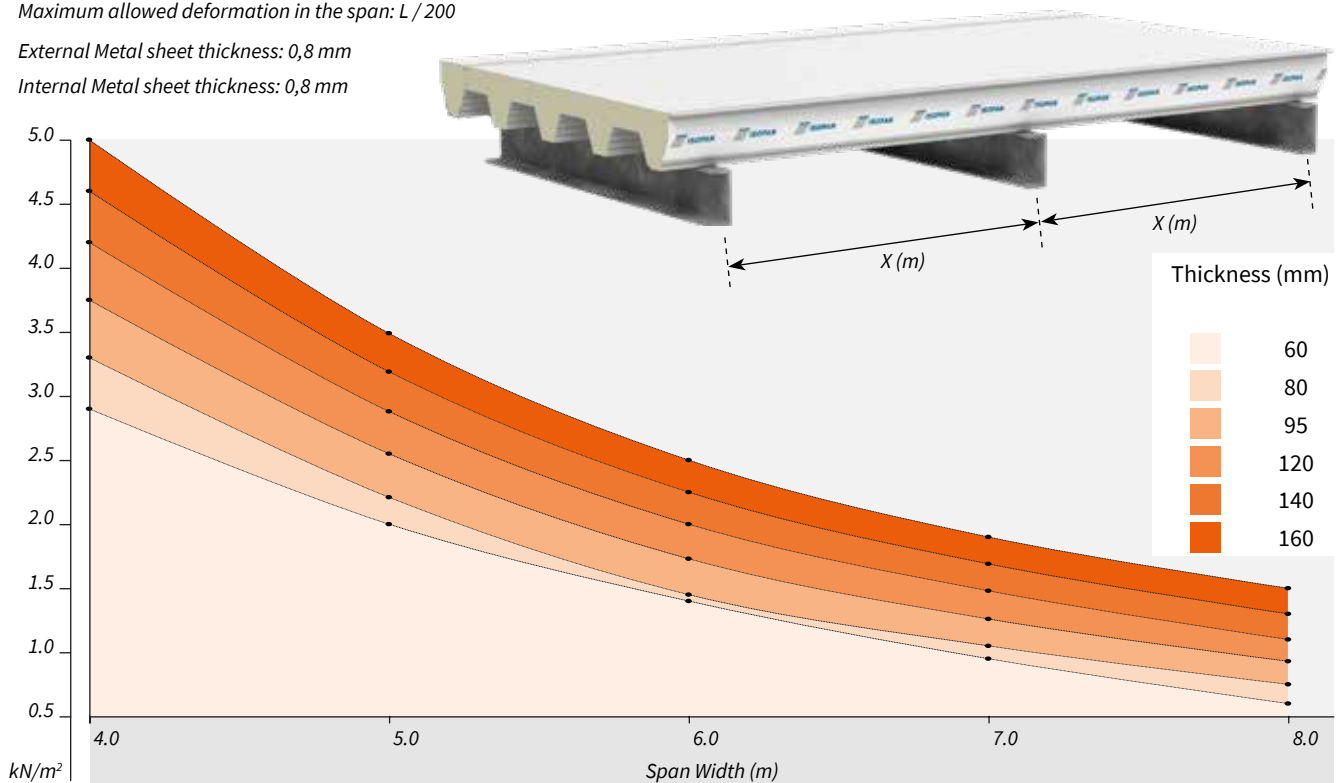
Self-weight of the panels is already considered. Linear interpolation may be used to establish in-between span values

The calculation has been performed in accordance with the Annex E of EN 14509:2013 standard, without including thermal loads.

Maximum allowed deformation in the span: $L / 200$

External Metal sheet thickness: 0,8 mm

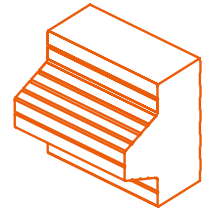
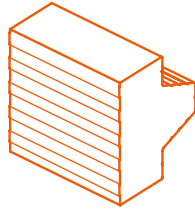
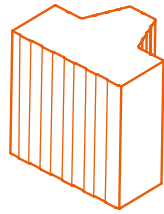
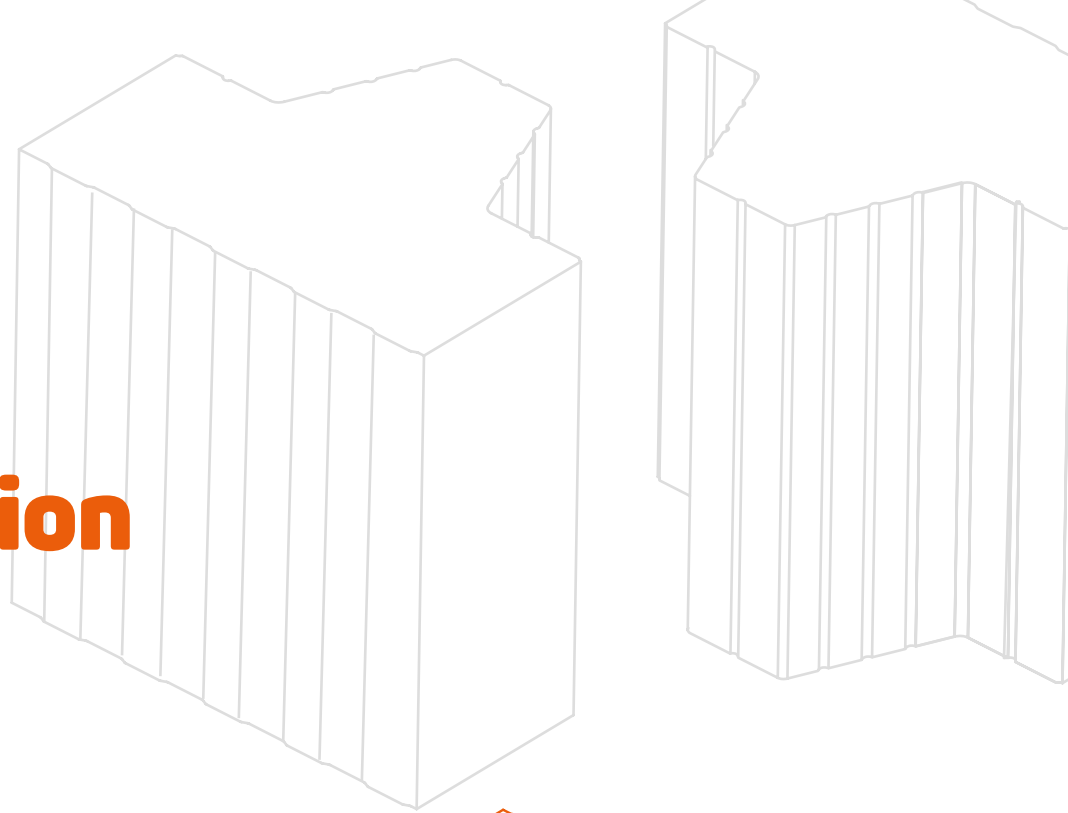
Internal Metal sheet thickness: 0,8 mm



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FORTELIA

Fortelia for Wall Application



The architectural expression is expressed greatest in the façades of buildings, and the geometric modularity, material composition and performance are the main identifying features.

The solutions of the FORTELIA range are characterised by the research into flexibility of use and freedom of design. The conformation of FORTELIA products enables configuration of a product that can meet any performance and aesthetic requirements.



Discover the best metal claddings with durability guarantees of up to 40 years

The attention to production standards, controlling the supply chain and the extension of the protective services towards the End customer are, for Isopan, synonymous with professionalism and reliability towards buyers.

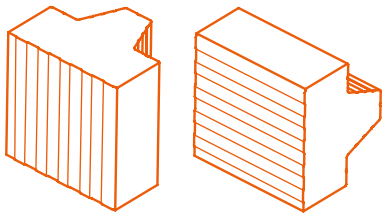
For this very reason Isopan is constantly committed to procuring and using high quality metal laminates coming and from

worldwide recognised Producers.

Thanks to our know-how and the use of cutting edge materials, Isopan is able to offer its important Customers Guarantees on the strength of the metal facings.

In fact, maintaining the functional characteristics over time represents one of the most crucial aspects in choosing a metal laminate.





Polyurethane wall application

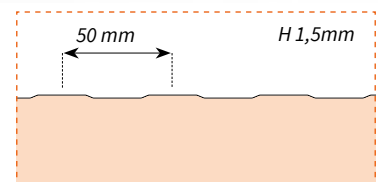
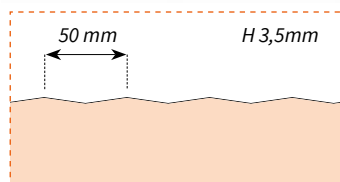
Fortelia Wall

TECHNICAL FEATURES

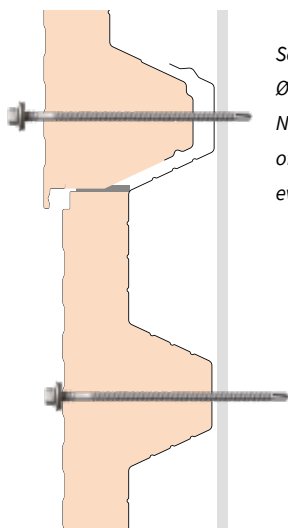
EXTERNAL FACING	
Material	Prepainted steel metal sheet
Minimum Thickness	0,6 mm
Maximum Thickness	0,8 mm
	Prepainted steel metal sheet
	0,6 mm
	0,8 mm
POLYURETANNE FOAM INSULATION	
Type	PUR / PIR Foam
Density	40 Kg/m ³



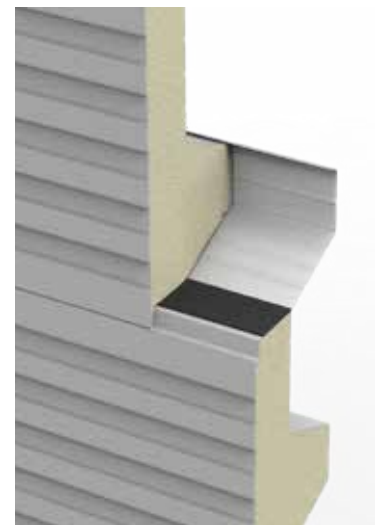
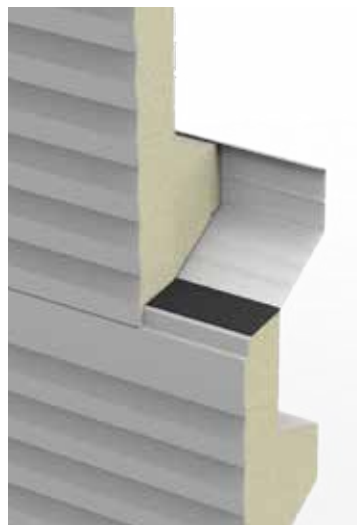
EXTERNAL SHAPE PROFILE



FASTENING



Self-drilling screw; with Ø19mm metal washer..
Number and position of fastenings must be evaluated by Designer.

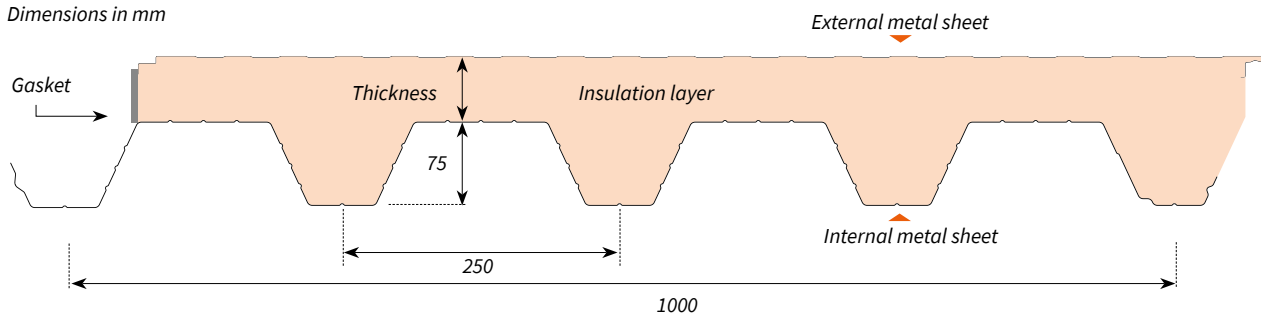


FORTELIA WALL - TECHNICAL DATA

Panel Nominal Thickness	mm	60	80	95	120	140	160	
U-Value	W/m²K	0,28	0,22	0,19	0,15	0,13	0,12	
Weight	0,6 + 0,6 mm	Kg/m²	14,9	15,7	16,3	17,3	18,1	18,9
	0,8 + 0,6 mm	Kg/m²	17,2	18,1	18,6	19,6	20,4	21,2
Fire reaction		B-s2; d0						

PANEL SECTION

Dimensions in mm



LOAD SPAN PERFORMANCE

Above load values are characteristics, therefore they must be compared with specific project loads before applying safety factors*.

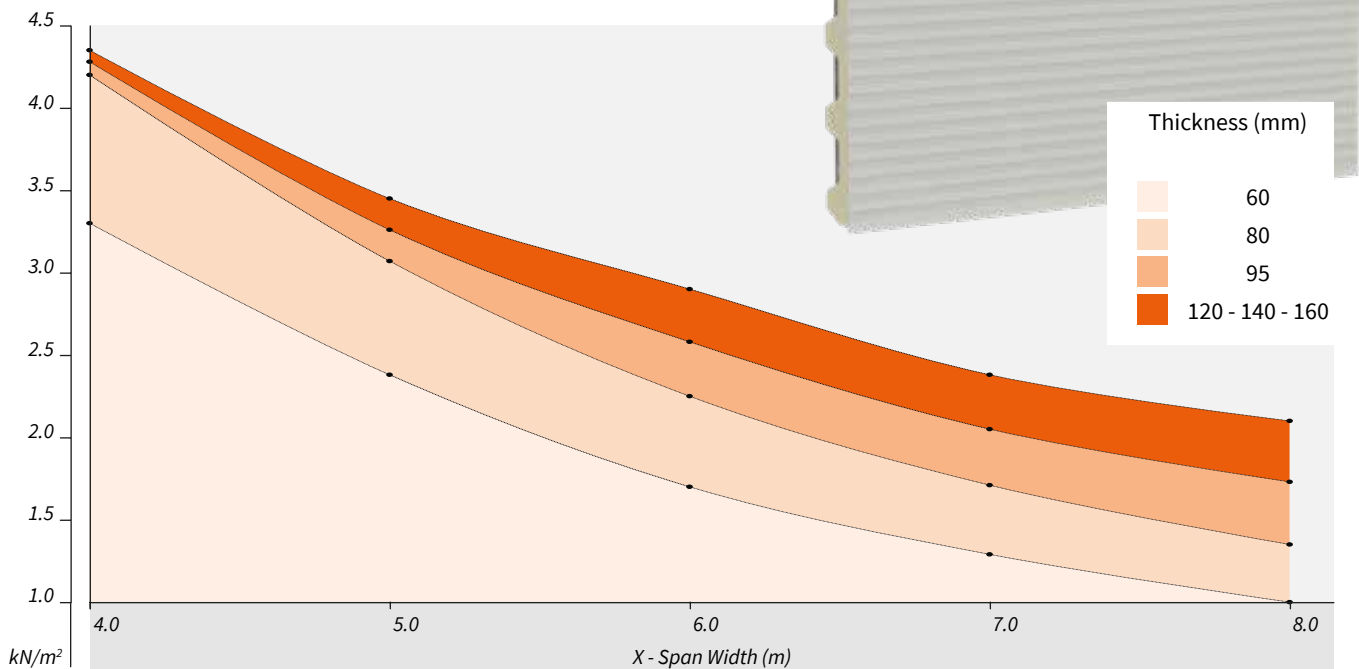
Linear interpolation may be used to establish in-between span values

The calculation has been performed in accordance with the Annex E of EN 14509:2013 standard, without including thermal loads.

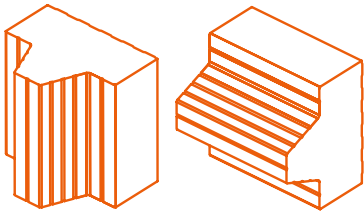
Maximum allowed deformation in the span: $L / 100$

External Metal sheet thickness: 0,6 mm

Internal Metal sheet thickness: 0,6 mm



*The graphs and values above are to be considered indicative of the mechanical behaviour of the product, please take into account that different support width have been considered (max= 240 mm), so for specific details and further analysis please do not hesitate to contact Isopan.



Polyurethane wall application

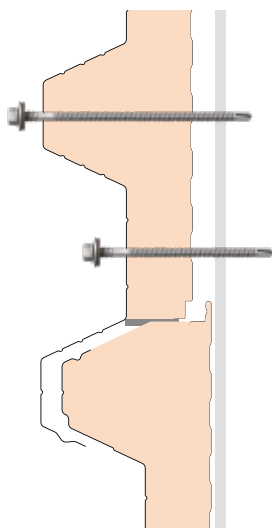
Fortelia Corrugated Wall

TECHNICAL FEATURES

EXTERNAL FACING	
Material	Prepainted steel metal sheet
Minimum Thickness	0,6 mm
Maximum Thickness	0,8 mm
INTERNAL FACING	
Material	Prepainted steel metal sheet
Minimum Thickness	0,6 mm
Maximum Thickness	0,8 mm
POLYURETANE FOAM INSULATION	
Type	PUR / PIR Foam
Density	40 Kg/m ³



FASTENING



Self-drilling screw; with Ø19mm metal washer..
Number and position of fastenings must be evaluated by Designer.

JOINT DETAIL

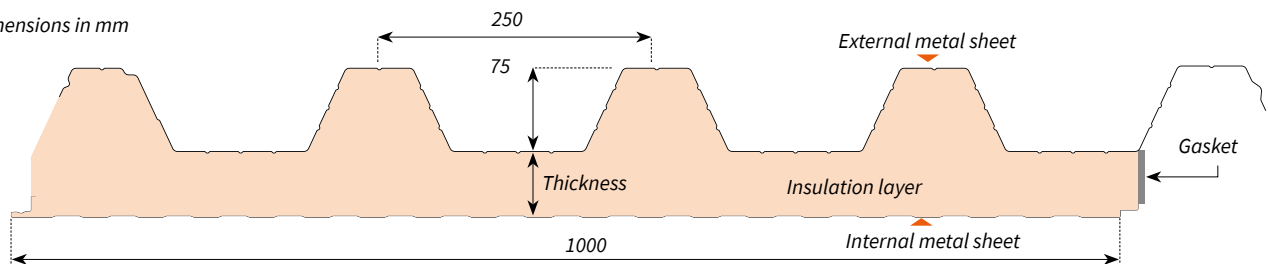


FORTELIA CORRUGATED WALL - TECHNICAL DATA

Panel Nominal Thickness	mm	60	80	95	120	140	160
U-Value	W/m²K	0,28	0,22	0,19	0,15	0,13	0,12
Weight	0,6 + 0,6 mm	Kg/m²	14,9	15,7	16,3	17,3	18,9
	0,8 + 0,6 mm	Kg/m²	17,2	18,1	18,6	19,6	21,2
Fire reaction		B-s2; d0					

PANEL SECTION

Dimensions in mm



LOAD SPAN PERFORMANCE

Above load values are characteristics, therefore they must be compared with specific project loads before applying safety factors*.

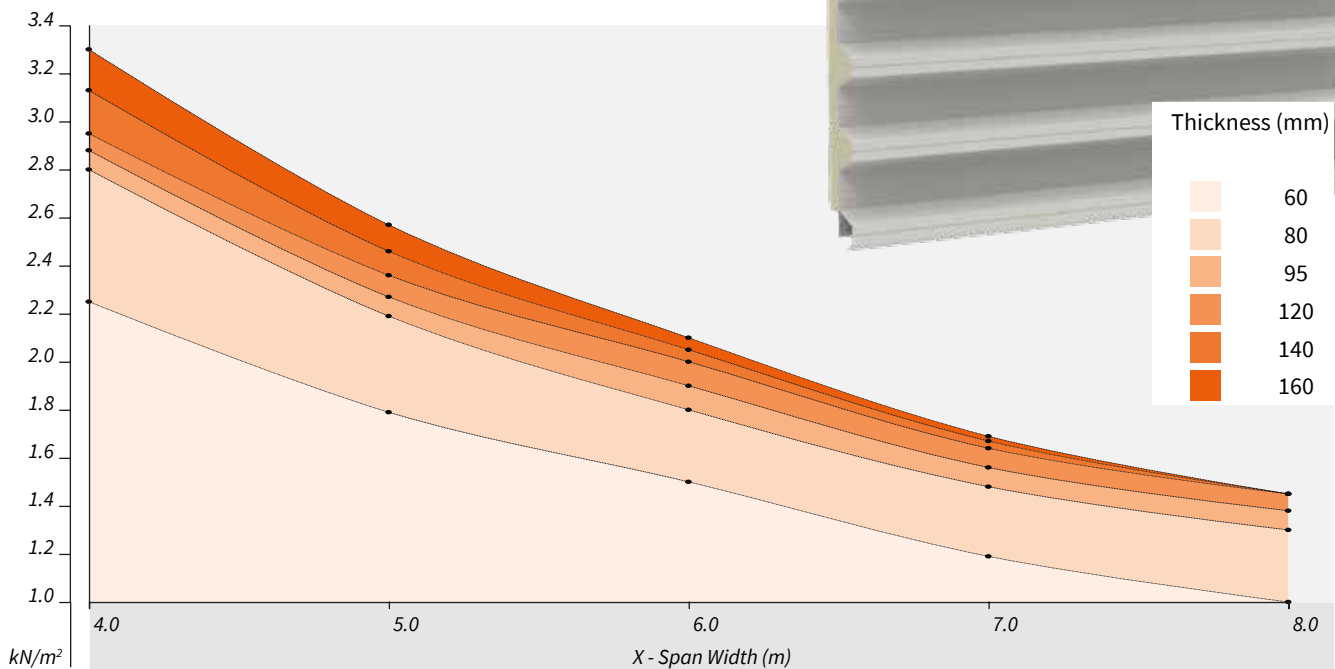
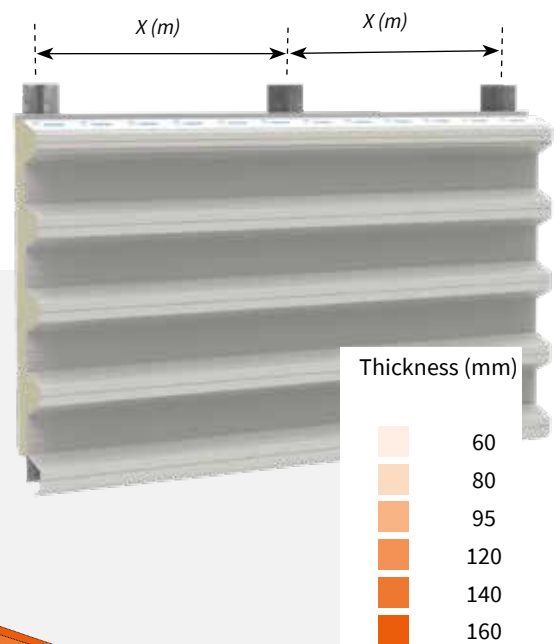
Linear interpolation may be used to establish in-between span values

The calculation has been performed in accordance with the Annex E of EN 14509:2013 standard, without including thermal loads.

Maximum allowed deformation in the span: $L / 100$

External Metal sheet thickness: 0,6 mm

Internal Metal sheet thickness: 0,6 mm



*The graphs and values above are to be considered indicative of the mechanical behaviour of the product, please take into account that different support width have been considered (max= 240 mm), so for specific details and further analysis please do not hesitate to contact Isopan.



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