

# Isoparete



Industrial building in Cremona

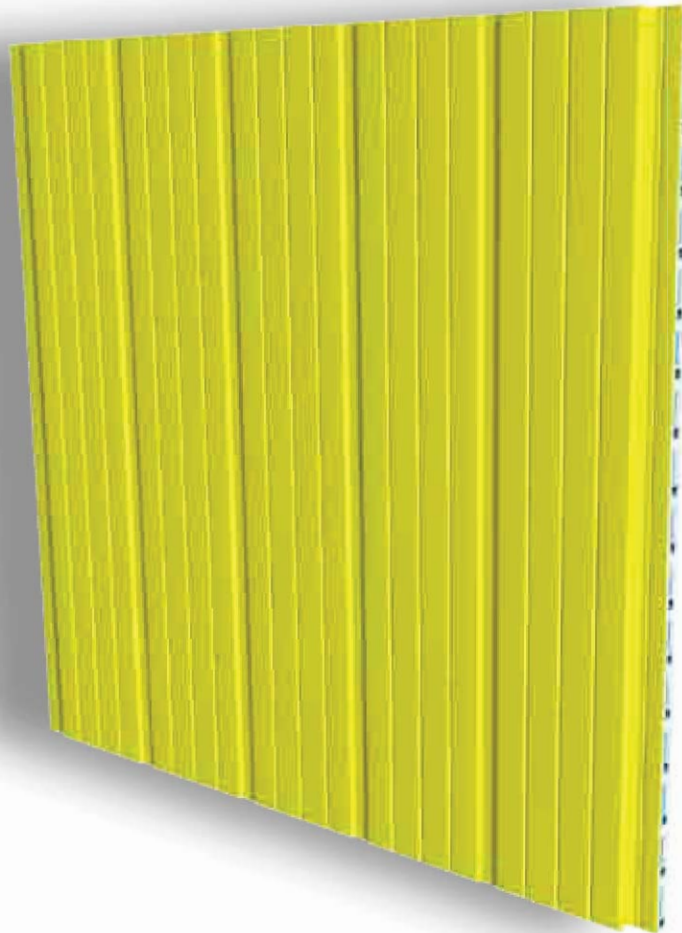


Detail of the wall



→ Legend pag. 18

**A panel designed for wall use. Thanks to its tongue-and-groove system of concealed joint and thanks to the design of its surfaces, it provides long-lasting and aesthetically pleasing constructions.**



## APPLICATION

The Isoparete panel is designed for the construction of industrial and commercial buildings, mobile walls and prefabricated boxes. It is the ideal component for projects that require insulation, lightness and modularity.

## CHARACTERISTICS

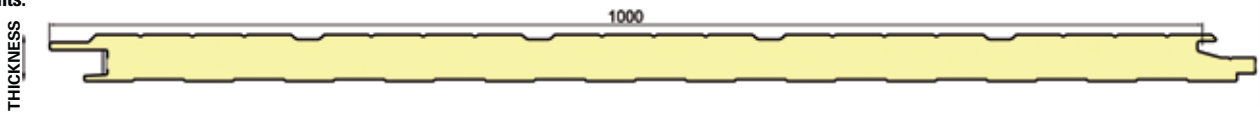
Isoparete is a self-supporting metal faced panel insulated with polyurethane foam with a tongue-and-groove joint. The concealed fixing element, that makes the design of the profile modular, is placed on the prepared zone and provides long-lasting and aesthetically pleasant constructions. The number and the place of the fixing elements should guarantee the stresses resistance, including depression loads. The walls made of these panels are obtained by assembling them in sequence.

## ADVANTAGES

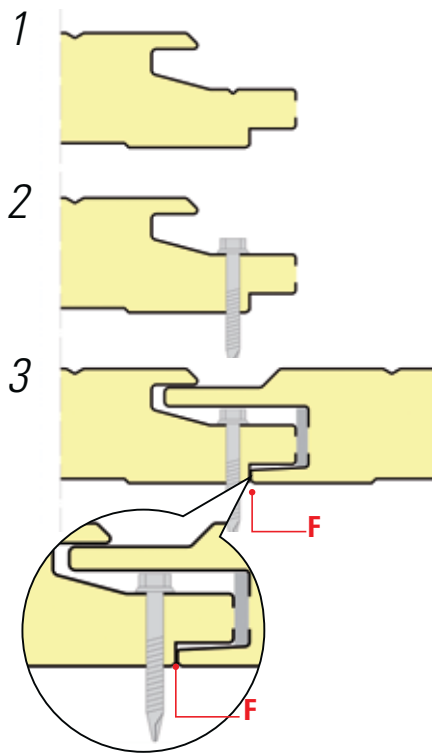
- High thermal resistance
- Mechanical stability
- Speed of installation
- Dimensional stability and lightness
- Easy to clean the surfaces
- Design flexibility

### INSTRUCTIONS OF USE

For the use of the panels and the related limits, please consult the technical data sheet available on [www.isopan.it](http://www.isopan.it) under the section "technical data sheet" and the "recommendations for the assembly of ribbed sheets and metal faced insulating panels" defined by AIPPEG Association of Italian Producers of Panels and Ribbed Elements.



### ASSEMBLY INSTRUCTIONS

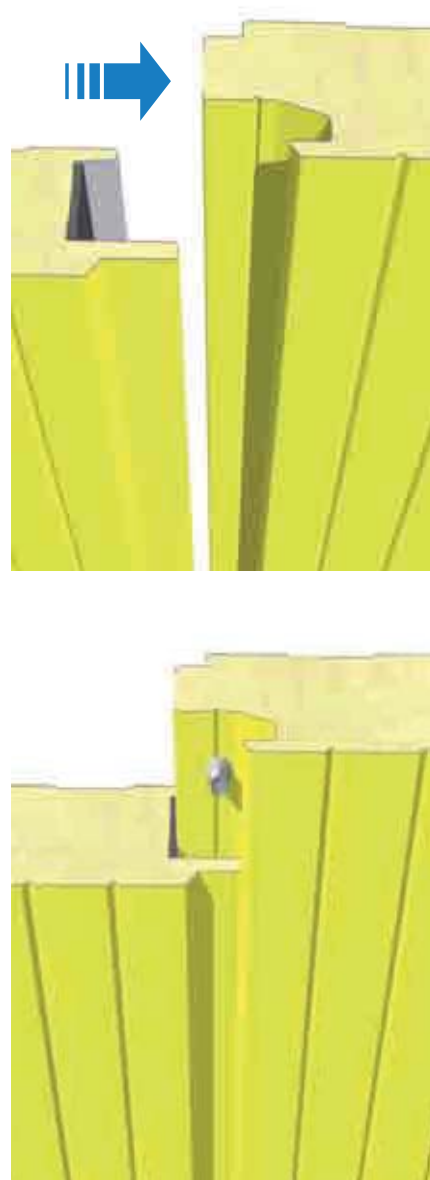


#### INSTALLATION PHASES

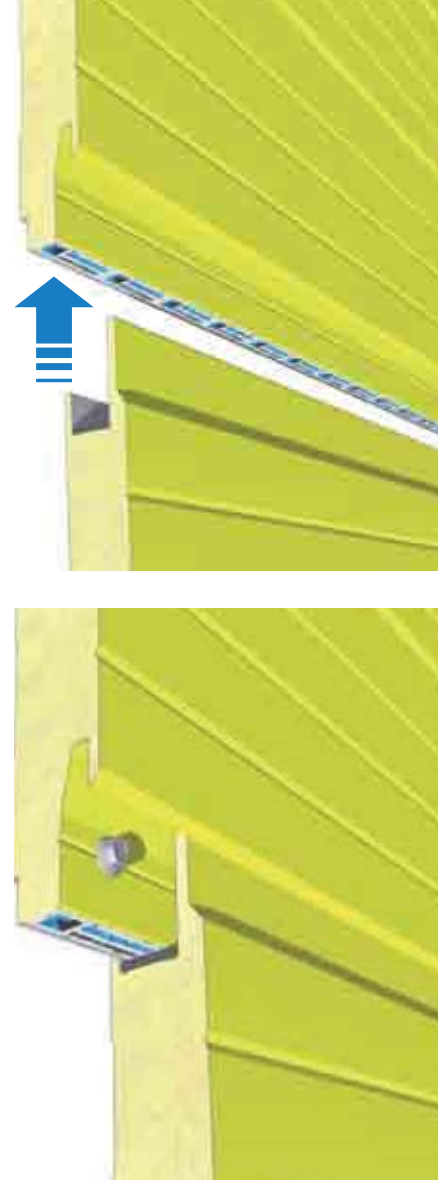
- 1 - Position the panel
  - 2 - Install the following panel
  - 3 - Place the fixing elements
- Repeat these steps for the entire wall.

Isopan recommends to verify the number and the place of the fixing elements in order to guarantee the stresses resistance, including depression loads. It is also recommended to control the proper alignment of the supports.

### VERTICAL USE



### HORIZONTAL USE



### PANELS WEIGHT

PESO	SPESSORE NOMINALE PANNELLO mm					
	35	40	50	60	80	100
kg/m <sup>2</sup>	10,1	10,3	10,7	11,1	11,9	12,7

### DIMENSION TOLERANCE (in accordance with EN 14509)

DEVIATION mm	
Length	L ≤ 3 m ± 5 mm
	L > 3 m ± 10 mm
Working length	± 2 mm
Thickness	D ≤ 100 mm ± 2 mm
	D > 100 mm ± 2 %
Deviation from perpendicularity	6 mm
Misalignment of the internal metal faces	± 3 mm
Sheets coupling	F = 0 + 3 mm

### FIRE CHARACTERISTICS

Regarding the specifications related to the fire characteristics of the panels, it is possible to consult the synthesis available in the catalogue or on the website [www.isopan.it](http://www.isopan.it).

L means the working length, D means the panels thickness and F means the sheets coupling

OVERLOAD SPANS

STEEL SHEET 0.5 mm – support 120 mm													
UNIFORMLY DI-DISTRIBUTED LOAD	PANEL NOMINAL THICKNESS mm						PANEL NOMINAL THICKNESS mm						
	35	40	50	60	80	100	35	40	50	60	80	100	
	MAX SPANS cm						MAX SPANS cm						
kg/m <sup>2</sup>	290	320	380	440	550	640	330	380	450	520	650	740	
50	260	300	350	410	500	590	290	340	410	470	590	660	
60	230	260	310	350	440	520	250	290	250	410	500	550	
80	200	230	275	320	395	470	220	260	310	360	440	490	
100	180	210	250	290	360	430	190	230	280	320	390	430	
120	165	190	230	265	330	395	170	200	250	295	360	390	
140	145	175	210	245	310	370	155	185	220	265	330	360	
160	135	165	195	230	290	345	140	160	200	240	305	340	
180	120	155	185	215	270	325	130	145	180	215	285	315	
200													

ALUMINUM SHEET 0.6 mm – support 120 mm													
UNIFORMLY DI-DISTRIBUTED LOAD	PANEL NOMINAL THICKNESS mm						PANEL NOMINAL THICKNESS mm						
	35	40	50	60	80	100	35	40	50	60	80	100	
	MAX SPANS cm						MAX SPANS cm						
kg/m <sup>2</sup>	220	240	290	330	410	480	260	290	350	400	490	580	
50	205	230	470	310	380	450	240	270	320	360	450	530	
60	180	200	240	270	335	390	210	235	280	320	400	470	
80	165	180	215	245	305	360	190	210	250	285	360	420	
100	150	165	195	220	280	330	170	190	225	260	330	390	
120	145	155	185	210	260	310	155	170	210	240	300	360	
140	135	140	170	195	240	285	145	160	190	220	280	330	
160	120	135	160	185	230	275	135	150	180	210	265	310	
180	115	125	150	175	220	260	120	140	170	195	245	285	
200													

Calculation for static sizing according to the Annex E of the UNI EN 14509 standard.  
Deflection limit 1/200 ℓ

THERMAL INSULATION

In accordance with the new standard EN 14509 Annex 10

U	PANEL NOMINAL THICKNESS mm					
	35	40	50	60	80	100
W/m <sup>2</sup> K	0,74	0,64	0,49	0,41	0,29	0,23
kcal/m <sup>2</sup> h °C	0,64	0,55	0,42	0,35	0,25	0,20

According to the calculation method EN ISO 69646

K	PANEL NOMINAL THICKNESS mm					
	35	40	50	60	80	100
W/m <sup>2</sup> K	0,56	0,50	0,40	0,34	0,26	0,21
kcal/m <sup>2</sup> h °C	0,49	0,44	0,35	0,30	0,23	0,18

AVAILABLE COLOURS (the colour should be chosen according to the final-use, the installation area and the standard thicknesses in stock)

