

Isopiano



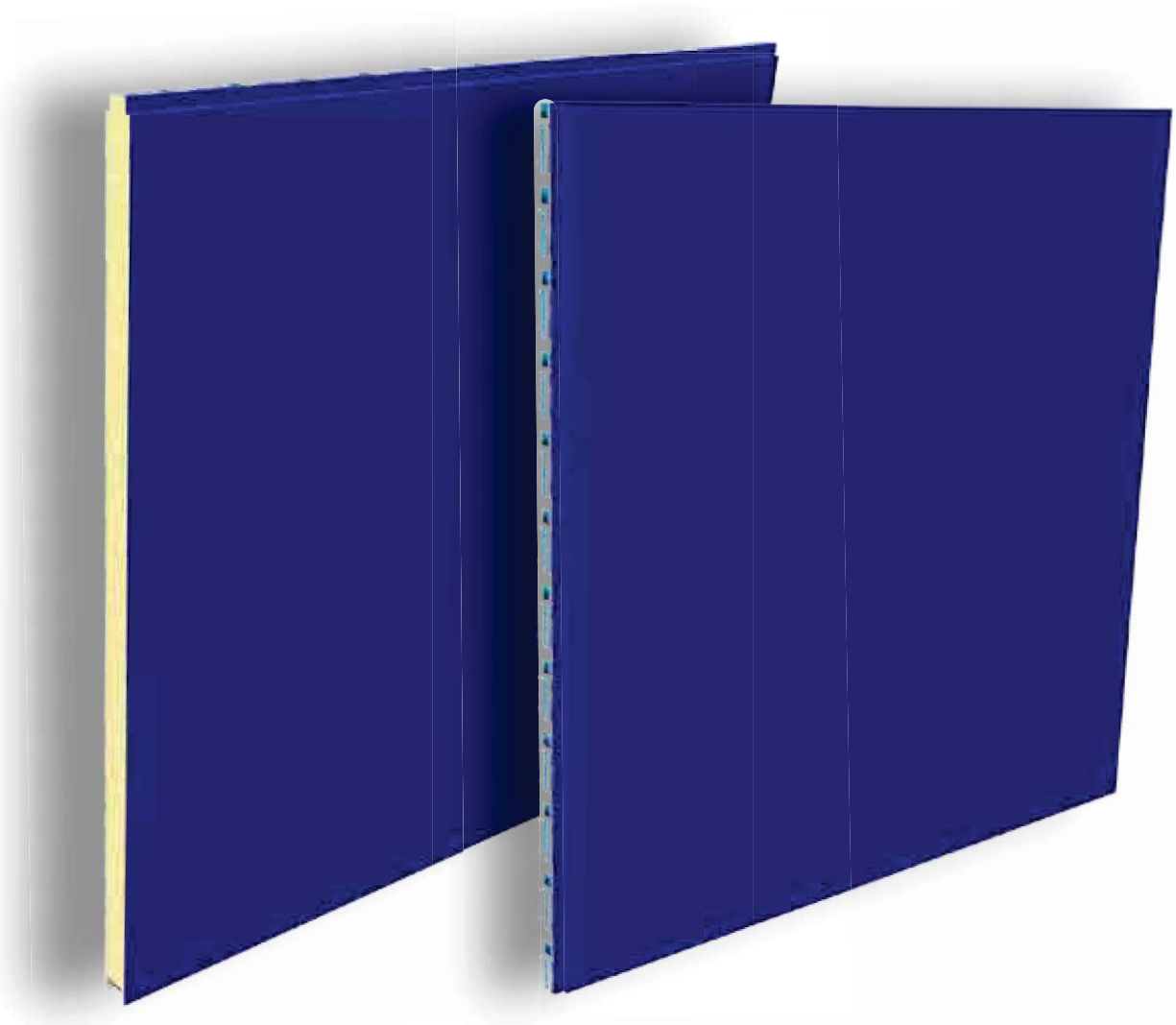
World Swimming Championship Village Roma 2009

Detail of the wall



→ Legend pag. 18

A panel designed for wall use, to meet the aesthetic and architectonic requirements of practical and functional internal divisions. The symmetrical section and the flatness of the surfaces make it appropriate for the construction of facades with both a simple and elegant design.



APPLICATION

Self-supporting metal faced panel, insulated with polyurethane used for walls of industrial and commercial buildings and divisions in general. It can also be used for scenic divisions where a high mechanical resistance is not required.

CHARACTERISTICS

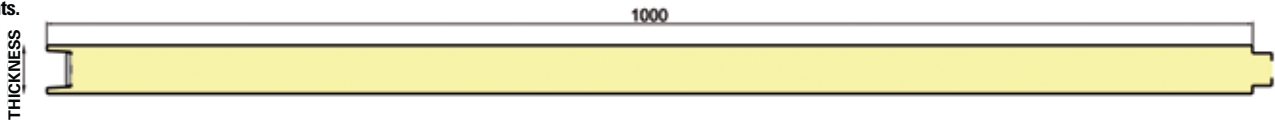
Isopiano is a self-supporting metal faced panel insulated with polyurethane foam with a tongue-and-groove joint. The fixing elements are exposed and placed on the prepared zone on the edge. The walls made of these products are obtained by coupling the panels.

ADVANTAGES

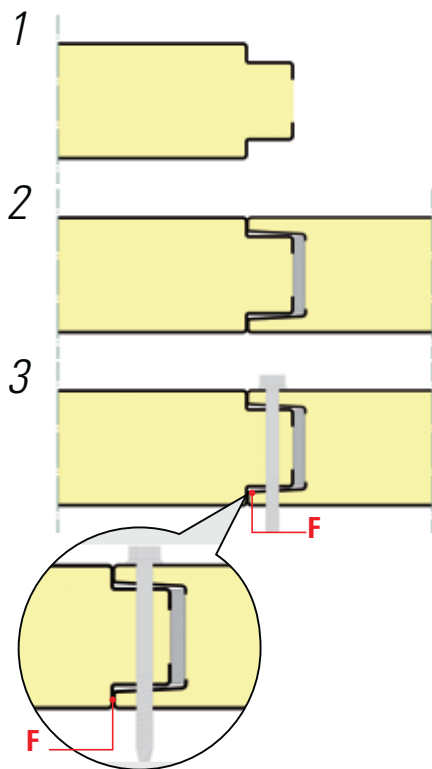
- High thermal resistance
- Mechanical stability
- Speed of installation
- Dimensional stability and lightness
- Facilità di pulizia superficiale
- Design flexibility

INSTRUCTIONS OF USE

For the use of the panels and the related limits, please consult the technical data sheet available on www.isopan.it 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

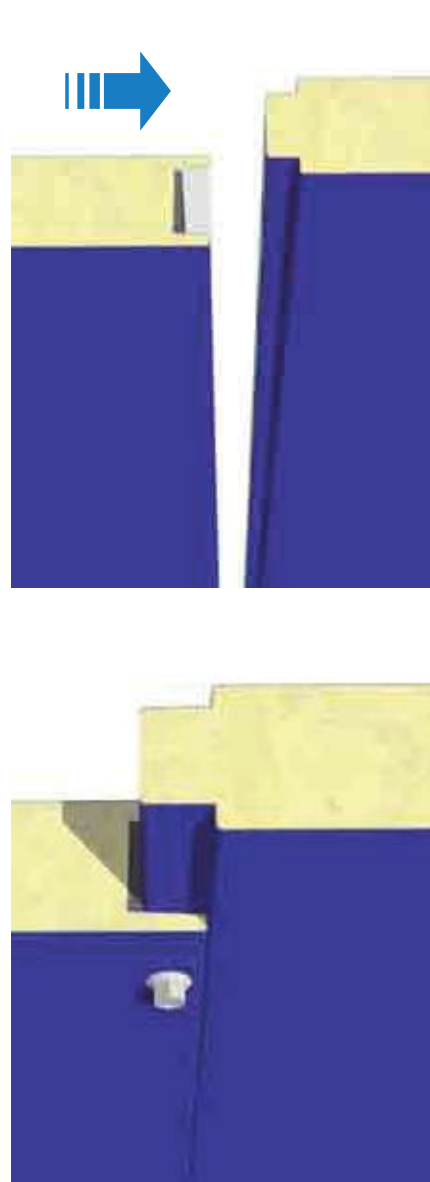


INSTALLATION PHASES

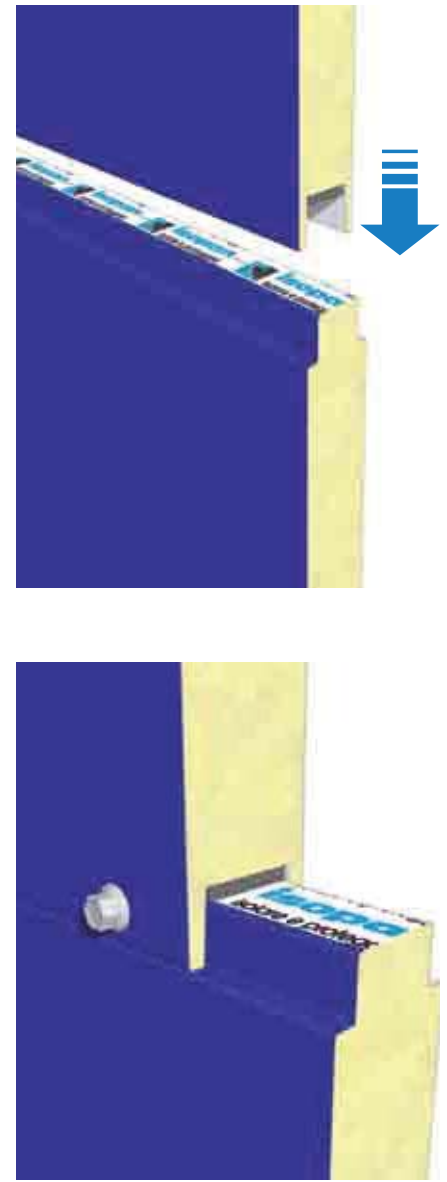
- 1 - Position the panel
 - 2 - Install the following panel
 - 3 - Place the fixing elements
- Repeat these steps for the entire wall.

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

SHEET THICKNESS		PANEL NOMINAL THICKNESS mm									
		25	30	35	40	50	60	80	100	120	
0,4	kg/m ²	7,4	7,7	7,9	8,2	8,5	8,9	9,6	10,3	11,2	
0,5	kg/m ²	9,2	9,3	9,5	9,6	10,1	10,4	11,2	12,2	12,9	
0,6	kg/m ²	11,2	11,4	11,6	11,8	12,2	12,6	13,4	14,2	14,9	

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.

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

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								
	MAX SPANS cm								MAX SPANS cm								
	25	30	40	50	60	80	100	120	25	30	40	50	60	80	100	120	
kg/m ²																	
50	220	260	320	380	440	550	640	730	260	300	380	450	520	650	740	800	
60	215	240	300	350	410	500	590	680	240	270	340	410	470	590	660	710	
80	180	205	260	310	350	440	520	600	200	230	290	250	410	500	550	600	
100	155	180	230	275	320	395	470	540	170	200	260	310	360	440	490	510	
120	140	165	210	250	290	360	430	490	140	170	230	280	320	390	430	460	
140	125	150	190	230	265	330	395	455	130	150	200	250	295	360	390	420	
160	115	135	175	210	245	310	370	425	120	130	185	220	265	330	360	385	
180	105	125	165	195	230	290	345	400	110	120	160	200	240	305	340	360	
200	100	115	155	185	215	270	325	375	100	110	145	180	215	285	315	335	

STEEL SHEET 0.6 mm – support 120 mm																	
UNIFORMLY DI-DISTRIBUTED LOAD	PANEL NOMINAL THICKNESS mm								PANEL NOMINAL THICKNESS mm								
	MAX SPANS cm								MAX SPANS cm								
	25	30	40	50	60	80	100	120	25	30	40	50	60	80	100	120	
kg/m ²																	
50	240	270	345	410	465	580	680	780	275	315	405	470	545	665	760	790	
60	220	250	315	375	425	525	630	720	245	285	355	435	505	620	680	700	
80	185	215	275	325	375	465	550	630	210	245	315	365	430	545	575	600	
100	165	190	240	295	335	415	490	570	170	210	270	325	375	470	500	520	
120	145	170	220	265	305	385	450	520	140	175	230	295	340	420	450	460	
140	130	150	200	240	280	350	410	480	125	155	210	255	300	380	405	420	
160	120	140	180	225	260	320	390	440	110	135	185	225	275	355	375	385	
180	110	130	170	205	240	305	365	420	105	125	165	210	245	325	350	360	
200	100	120	160	190	220	285	340	395	100	105	145	185	220	290	330	335	

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								
	25	30	35	40	50	60	80	100	120
W/m ² K	0,83	0,70	0,61	0,54	0,44	0,37	0,28	0,22	0,19
kcal/m ² h °C	0,71	0,60	0,52	0,46	0,38	0,32	0,24	0,19	0,16

According to the calculation method EN ISO 69646

K	PANEL NOMINAL THICKNESS mm								
	25	30	35	40	50	60	80	100	120
W/m ² K	0,75	0,64	0,56	0,50	0,40	0,34	0,26	0,21	0,18
kcal/m ² h °C	0,67	0,57	0,49	0,44	0,35	0,30	0,23	0,18	0,15

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

bianco grigio 	bianco G9002 	bianco G9010 	avorio chiaro G1015 	giallo cadmio RAL1021 
blu genziana G5010 	silver G9006 	verde muschio G6005 	grigio antracite G7016 	rosso fuoco G3000 