→ Legend pag. 18

A panel designed for walls cladding: it is created to meet the growing performance requirements of fire resistance, sound insulation and incombustibility of the product.

APPLICATION

The Isofire Wall Fono panel is used in buildings with walls that require high fire resistance and excellent sound insulation performance, such as logistics centres or soundproof rooms.

CHARACTERISTICS

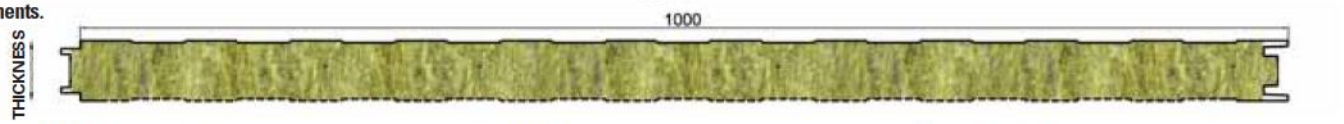
Isofire wall Fono is a self-supporting double skin panel, insulated with mineral wool fibre made with an exclusive insulation layer composed of mineral wool strips, placed in a longitudinal way, with the fibres being set at 90 degrees to the plane of the two faces. In case of fire inside the building, it also contains the heat propagation thanks to the thickness of the mineral wool; the various thicknesses ensure a flexible use. The internal sheet is characterised by a micro-drilling that enhances acoustic performances; meaning the sound absorption and insulation. The fixing elements are penetrating; their number and place should guarantee the stresses resistance.

ADVANTAGES

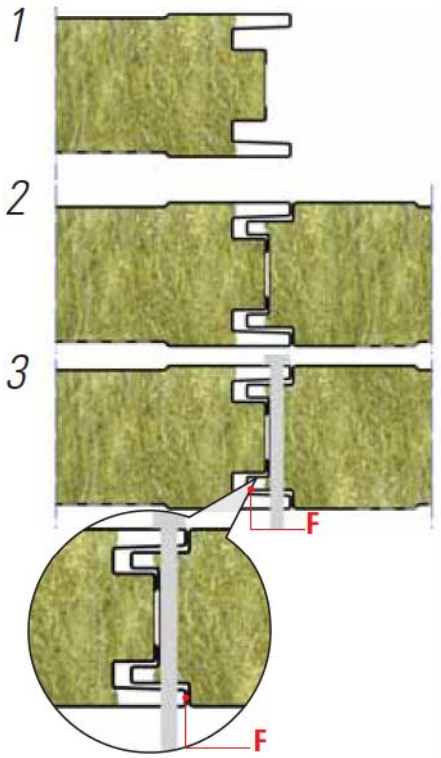
- **High thermal insulation**
- **High fire resistance**
- **High sound insulation**

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 Ements.



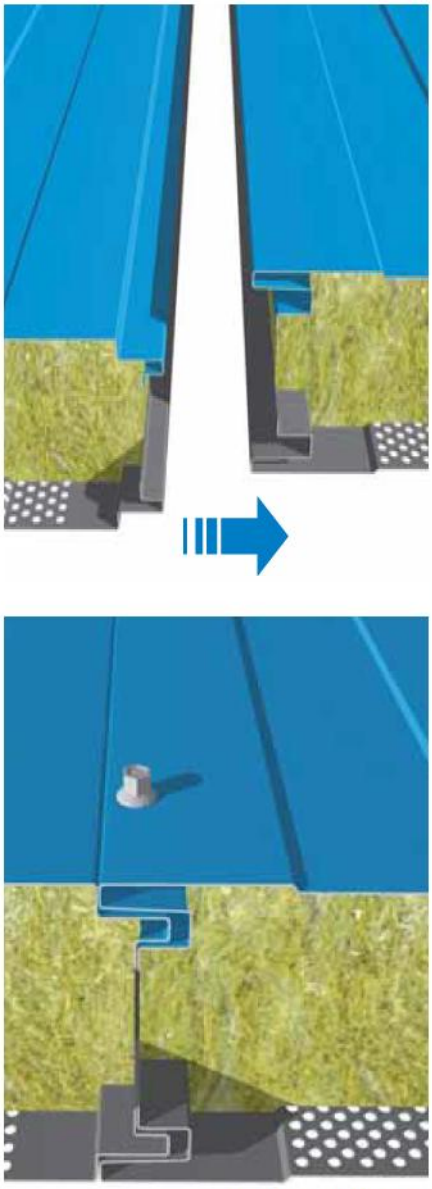
ASSEMBLY INSTRUCTIONS



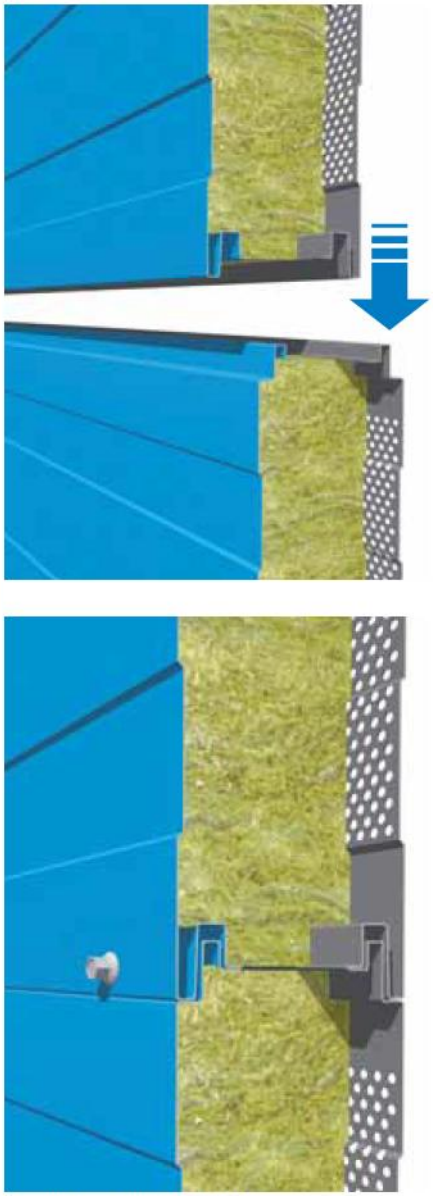
INSTALLATION PHASES
1 - Position the panel
2 - Install the following panel
3 - Place the fixing elements
Repeat these steps for the entire wall.

Isopan recommends, during the assembly phase, the use of a specific steel plate to distribute the tightening loads of the screw. The number and the place of the fixing elements must guarantee the stresses resistance, included depression loads.

VERTICAL USE



HORIZONTAL USE



PANELS WEIGHT

SHEET THICKNESS	PESO	PANEL NOMINAL THICKNESS mm					
		50	60	80	100	120	150
0,5	kg/m²	12,8	13,9	15,5	17,3	19,5	22,7
0,6	kg/m²	14,5	15,5	17,2	19	21,4	24,4

On client's request, Isopan can provide the following certificates related to the acoustic behaviour:

Sound insulation

Rw = 34 dB (Roof Fono, 50 mm thick)
Rw = 35 dB (Roof Fono, 80 mm thick)
Rw = 35 dB (Roof Fono, 100 mm thick)

Sound absorption

coefficient of sound absorption αw = 1

DIMENSION TOLERANCE (in accordance with EN 14509)

DEVIATION mm		
Length	L ≤ 3 m L > 3 m	± 5 mm ± 10 mm
Working length	± 2 mm	
Thickness	D ≤ 100 mm D > 100 mm	± 2 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

Isofire Wall - Fono

OVERLOAD SPANS

STEEL SHEET 0.5 mm – support 120 mm												
UNIFORMLY DISTRIBUTED LOAD	PANEL NOMINAL THICKNESS mm						PANEL NOMINAL THICKNESS mm					
	50	60	80	100	120	150	50	60	80	100	120	150
kg/m²	MAX SPANS cm						MAX SPANS cm					
50	290	340	400	460	540	560	340	385	440	465	540	585
60	265	305	370	420	460	515	300	355	400	450	480	530
80	225	265	320	360	395	440	260	300	345	380	410	450
100	200	235	290	320	355	395	225	260	305	340	360	395
120	180	210	260	295	320	360	190	230	275	305	330	355
140	165	195	240	275	300	335	180	205	255	280	300	320
160	160	180	225	255	280	315	160	190	235	260	280	300
180	145	160	205	240	265	295	155	175	220	240	260	280
200	130	155	195	230	250	280	140	160	205	230	245	260

STEEL SHEET 0.6 mm – support 120 mm												
UNIFORMLY DISTRIBUTED LOAD	PANEL NOMINAL THICKNESS mm						PANEL NOMINAL THICKNESS mm					
	50	60	80	100	120	150	50	60	80	100	120	150
kg/m²	MAX SPANS cm						MAX SPANS cm					
50	305	355	440	500	545	600	355	410	480	540	580	610
60	280	320	400	460	500	560	315	370	435	480	520	570
80	240	275	345	395	435	490	265	305	370	410	440	480
100	210	240	305	320	380	430	225	265	330	360	385	420
120	185	220	275	320	355	395	200	235	300	330	345	380
140	170	200	275	300	330	370	180	210	275	300	320	345
160	160	180	230	280	305	345	160	195	250	280	300	320
180	150	165	215	260	290	325	150	175	225	260	280	300
200	140	160	200	240	280	310	140	160	210	245	260	280

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					
	50	60	80	100	120	150
W/m² K	0,75	0,63	0,49	0,39	0,33	0,27
kcal/m² h °C	0,65	0,54	0,42	0,34	0,28	0,23

According to the calculation method EN ISO 69646

K	PANEL NOMINAL THICKNESS mm					
	50	60	80	100	120	150
W/m² K	0,75	0,64	0,50	0,40	0,33	0,27
kcal/m² h °C	0,67	0,55	0,44	0,35	0,30	0,24

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