

Isofire Wall



Logistic centre in Verona

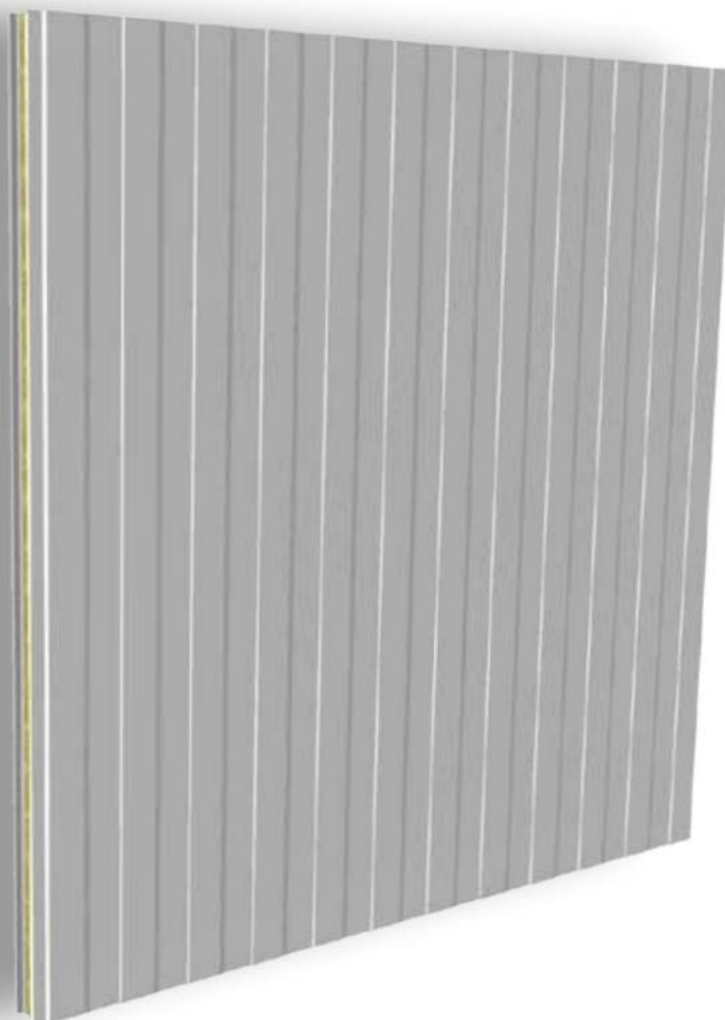


Detail of the internal side



→ Legend pag. 18

A panel designed for wall use. It is characterised by a core made of mineral wool that guarantees the incombustibility of the product and an excellent thermal insulation. The panel was designed to meet the growing performance requirements of fire resistance and is appropriate for the construction of external walls and internal divisions.



APPLICATION

The Isofire Wall panel is used for walls that require high architectonic performances of fire resistance and a good sound insulation.

CHARACTERISTICS

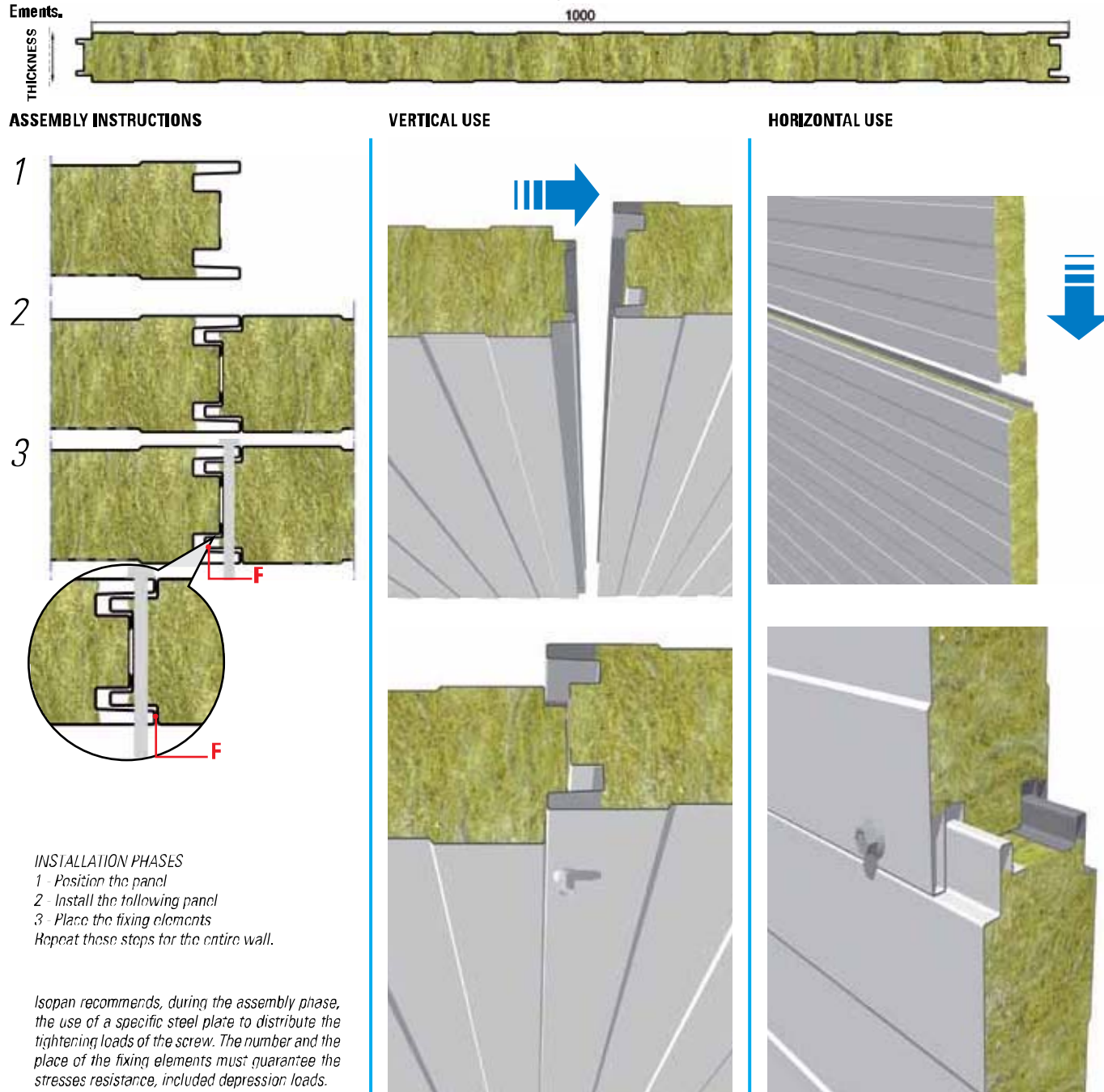
Isofire Wall is a self-supporting double skin panel, insulated with mineral wool fibre made with an exclusive insulation layer composed of mineral wool strips, placed in a longitudinal way, with the fibres being set at 90 degrees to the plane of the two faces. In case of fire inside the building, it also contains the heat propagation thanks to the thickness of the mineral wool; the various thicknesses ensure a flexible use. The 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 Elements.



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.

PANELS WEIGHT

SHEET THICKNESS		PANEL NOMINAL THICKNESS mm					
		50	60	80	100	120	150
0,5	kg/m ²	13,2	14,2	16,2	18,2	20,2	23,2
0,6	kg/m ²	14,9	15,9	17,9	19,9	21,9	24,9

REACTION TO FIRE

ISOFIRE WALL panels' reaction to fire has been tested according to EN 13501-1 and are classified as: A2 S1 D0

FIRE RESISTANCE

ISOFIRE WALL metal faced insulating panels obtained the following results:

FI 60 for 80 mm thick panels (according to the EN 13501-2 standard)

EI 90 for 120 mm thick panels (according to the EN 13501-2 standard)

EI 180 for 150 mm thick panels (according to the EN 13501-2 standard)

DIMENSION TOLERANCE (in accordance with EN 14509)

DEVIATION mm		
Length	$L \leq 3 \text{ m}$	$\pm 5 \text{ mm}$
	$L > 3 \text{ m}$	$\pm 10 \text{ mm}$
Working length	$\pm 2 \text{ mm}$	
Thickness	$D \leq 100 \text{ mm}$	$\pm 2 \text{ mm}$
	$D > 100 \text{ mm}$	$\pm 2 \%$
Deviation from perpendicularity	6 mm	
Misalignment of the internal metal faces	$\pm 3 \text{ mm}$	
Sheets coupling	$F = 0 + 3 \text{ mm}$	

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- STRIBUTED LOAD	SPESSORE NOMINALE PANNELLO mm						SPESSORE NOMINALE PANNELLO mm					
	50	60	80	100	120	150	50	60	80	100	120	150
	MAX SPANS cm						MAX SPANS cm					
kg/m ²												
50	345	400	475	545	640	665	400	460	525	555	640	695
60	315	365	440	495	545	610	355	420	475	535	570	630
80	270	315	380	430	470	525	305	355	410	450	485	535
100	240	280	345	380	420	470	270	305	365	400	430	470
120	215	250	310	350	380	430	225	275	325	365	390	420
140	195	230	285	325	355	395	210	245	300	335	355	380
160	190	210	270	300	335	375	190	225	280	305	330	355
180	175	190	245	285	315	350	185	205	265	285	305	330
200	155	185	230	275	295	335	165	190	245	275	290	310

STEEL SHEET 0,6 mm – support 120 mm												
UNIFORMLY DI- STRIBUTED LOAD	SPESSORE NOMINALE PANNELLO mm						SPESSORE NOMINALE PANNELLO mm					
	50	60	80	100	120	150	50	60	80	100	120	150
	MAX SPANS cm						MAX SPANS cm					
kg/m ²												
50	365	420	525	590	650	715	420	485	570	640	685	725
60	335	380	475	545	590	665	375	440	515	570	620	675
80	285	325	410	470	515	580	315	365	440	485	525	570
100	250	285	365	380	450	510	270	315	390	430	460	495
120	220	260	325	380	420	470	240	280	355	390	410	450
140	200	235	325	355	390	440	210	250	325	355	380	410
160	190	215	275	330	365	410	190	230	295	330	355	380
180	180	195	255	305	345	385	180	205	270	305	330	355
200	165	190	235	285	330	370	165	190	250	290	305	330

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	80	100	120	150
W/m ² K	0,75	0,49	0,39	0,33	0,27
kcal/m ² h °C	0,65	0,42	0,34	0,28	0,23

According to the calculation method EN ISO 6966

K	PANEL NOMINAL THICKNESS mm				
	50	80	100	120	150
W/m ² K	0,75	0,50	0,40	0,33	0,27
kcal/m ² h °C	0,67	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)

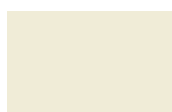
bianco grigio



bianco G9002



bianco G9010



avorio chiaro G1015



giallo cadmio HAL1021



blu genziana G5010



silver G9006



verde muschio G6005



grigio antracite G7016



rosso fuoco G3000

