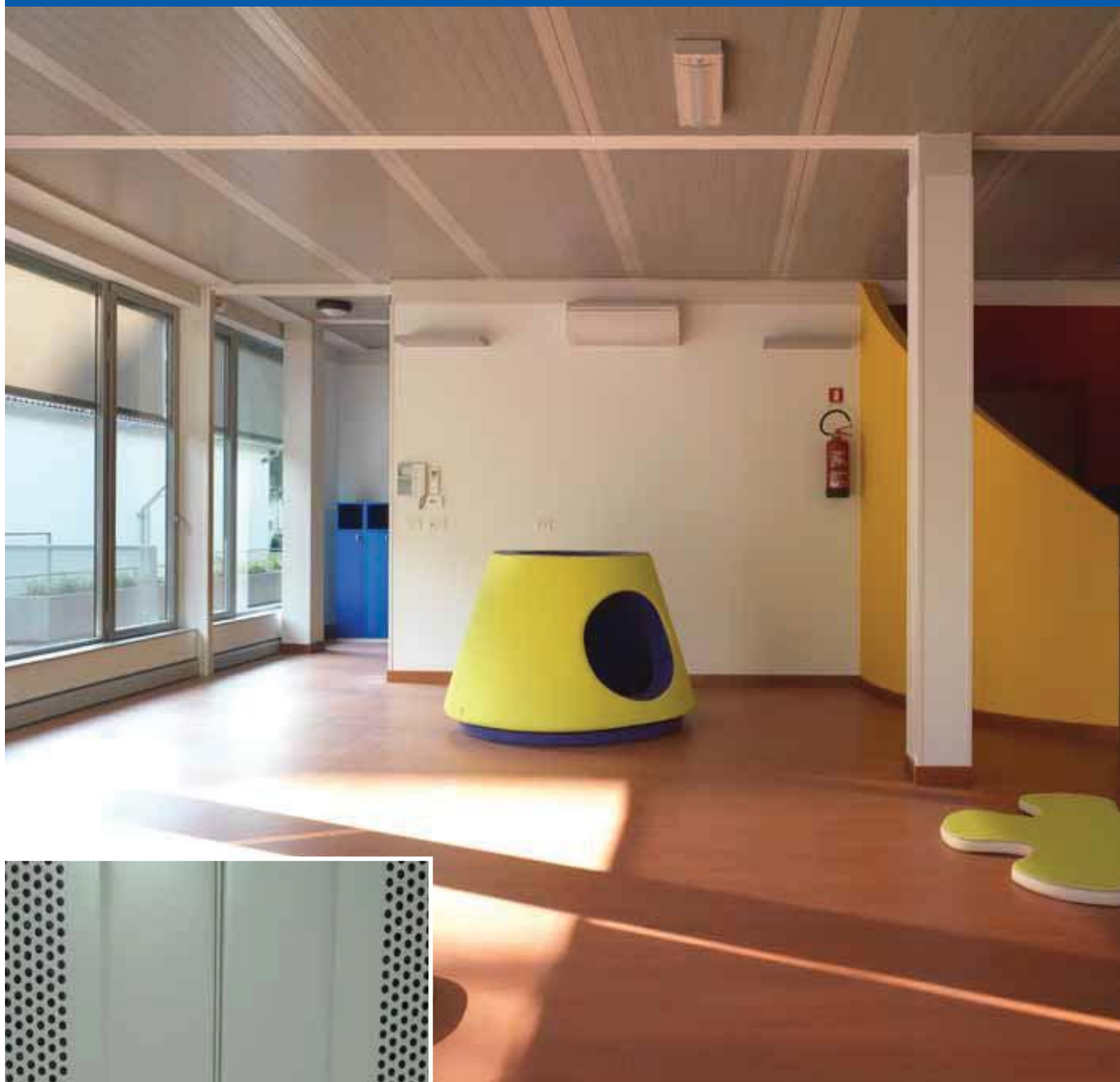


Isofire Roof - Fono



Kindergarten in Faenza



Detail of the roof



→ Legend pag. 18

Panel designed for pitched roofs. The “Fono” panels range is created to meet the growing performance requirements of sound absorption, while guaranteeing the incombustibility of the product.

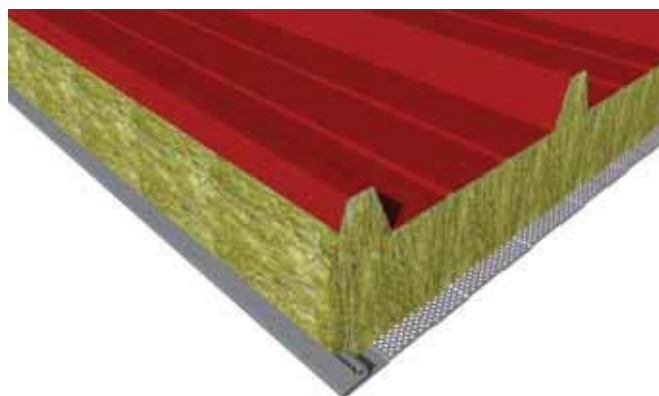


APPLICATION

The Isofire Roof Fono panel is used for roofs that require high fire resistance and good sound insulation performances.

CHARACTERISTICS

Isofire Roof 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, and the ribs of the external sheets are filled in with shaped mineral wool strips. In case of fire inside the building, it also contains the heat propagation thanks to the thickness of the mineral wool. The 5 ribs maximize the static resistance and 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 system is a penetrating type with the possibility to use exposed caps; the number and the place of the fixing elements should guarantee the stresses resistance. On this panel, the LB1 system, which is specially designed for fixing photovoltaic mono and polycrystalline modules, can be used.

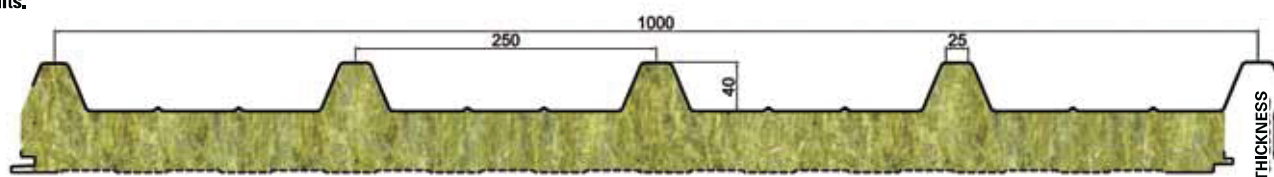


ADVANTAGES

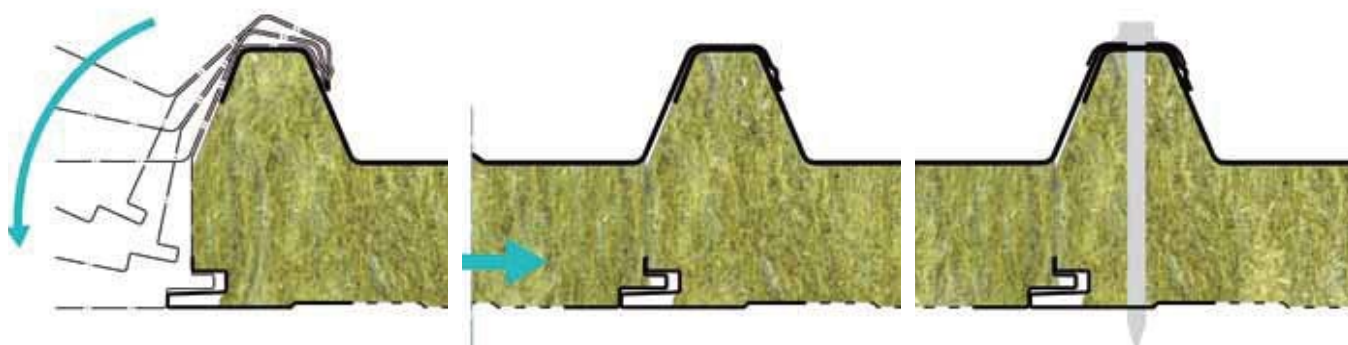
- High thermal insulation
- High fire resistance
- High sound insulation

INSTRUCTIONS OF USE

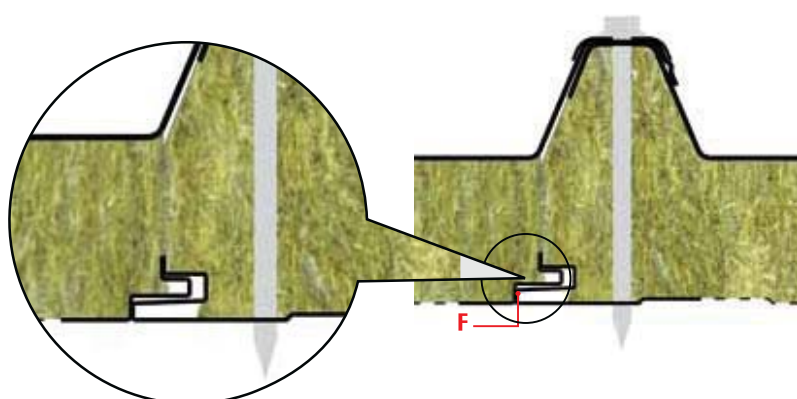
For the use of the panels and the related limits, please consult the technical data sheet available on www.isopan.it under the section "technical data sheet" and the "recommendations for the assembly of ribbed sheets and metal faced insulating panels" defined by AIPPEG Association of Italian Producers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



Panel transversal section

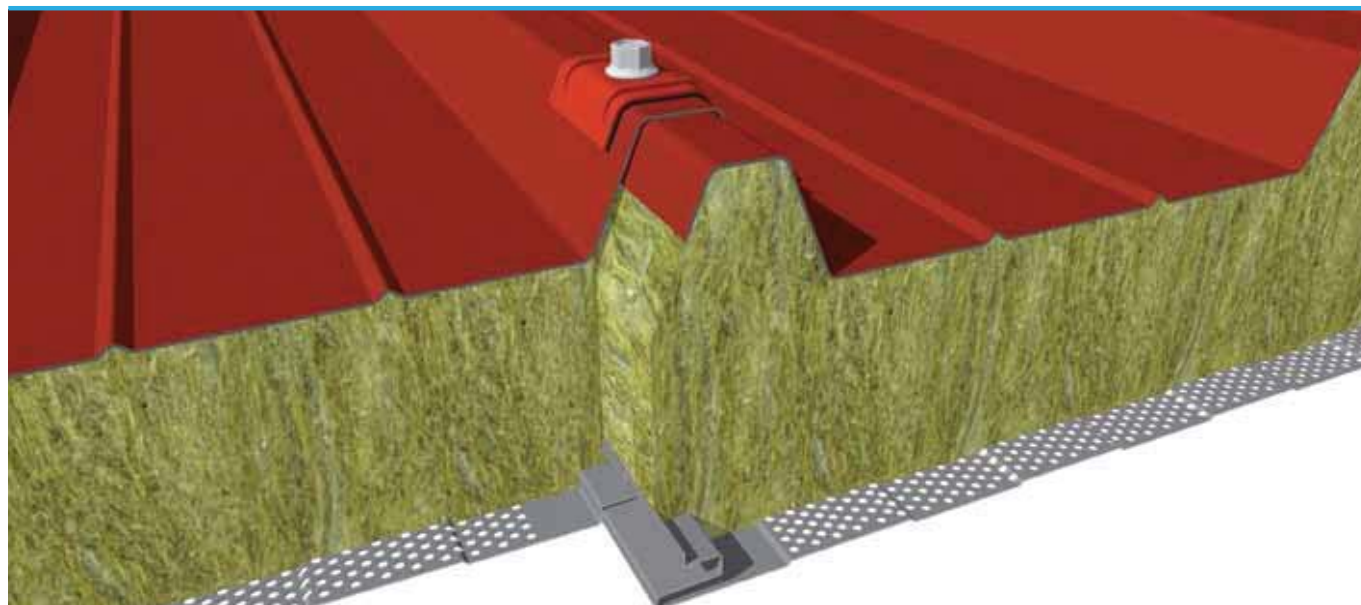


Details of the assembly phase



Details of the fixing system and the coupling tolerance

Details of the overlapping system



OVERLOAD SPANS

CHARGE UNI-FORMEMENT DISTRIBUEE kg/m ²	Steel sheet 0.5 mm – support 120 mm						Steel sheet 0.6 mm – support 120 mm					
	PANEL NOMINAL THICKNESS mm						PANEL NOMINAL THICKNESS mm					
	50	60	80	100	120	150	50	60	80	100	120	150
MAX SPANS cm												
80	280	305	360	405	440	470	295	315	360	415	455	510
100	260	280	315	360	410	450	265	285	335	380	425	490
120	230	260	295	335	370	435	250	265	305	350	385	440
140	220	230	270	310	350	405	230	250	280	315	360	415
160	210	225	260	285	325	370	220	230	265	305	335	385
180	195	210	240	270	305	350	210	220	250	280	310	360
200	180	195	230	260	285	335	195	210	240	265	295	340
220	170	180	220	245	270	315	180	205	225	260	285	325
250	150	170	200	230	255	295	165	180	210	240	265	305

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

PANELS WEIGHT

SHEET mm		PANEL NOMINAL THICKNESS mm					
		50	60	80	100	120	150
0,5	kg/m ²	13,5	14,3	16,4	18,5	20,4	23,2
0,6	kg/m ²	15,5	17,1	18,3	20,2	22,3	25,3

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

Sound insulation

Rw = 30 dB (Roof Fono, 50 mm thick)

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

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

Sound absorption

coefficient of sound absorption αw = 1

FIRE RESISTANCE

ISOFIRE ROOF-FONO panels obtained the following results:

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

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	
Bottom sheet coupling	F = 0 + 3 mm	

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

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	0,78	0,50	0,41	0,34	0,28
kcal/m ² h °C	0,67	0,43	0,35	0,29	0,24

According to the calculation method EN ISO 69646

K	PANEL NOMINAL THICKNESS mm				
	50	80	100	120	150
W/m ² K	0,72	0,44	0,36	0,30	0,25
kcal/m ² h °C	0,64	0,38	0,32	0,26	0,22

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

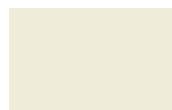
bianco grigio



bianco G9002



bianco G9010



grigio antracite G7016



blu genziana G5010



silver G9006



verde muschio G6005



verde oliva G6003



testa di moro



rosso ossido G3009

