

Isocop



Industrial roof

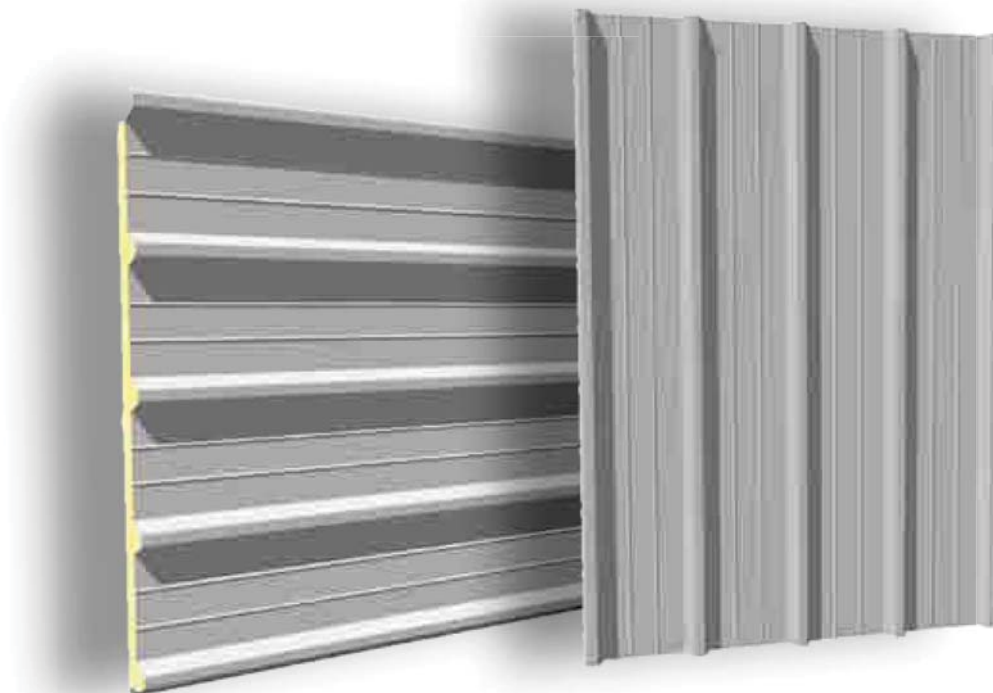


Detail of the roof (bianco griglio color)



→ Legend pag. 18

A roof panel that is very versatile and gives high aesthetic results. The various available options allow a customized choice in order to meet the user's needs, since it suggests a new design for industrial and public roofs. Aesthetically pleasing, it allows the integration of different roof systems thanks to a wide range of elements of flashings and roof windows. It is also appropriate for mono and polycrystalline photovoltaic roofs.



APPLICATION

Isocop is a panel designed for roofs with a minimum slope of 7% for industrial, public and commercial buildings. Ideal for large roofs. It can be used vertically for walls cladding. The external sheet may be made of copper, indicated for residential, religious and structural prestigious buildings or made of aluminium or stainless steel for their anticorrosion properties.

CHARACTERISTICS

It is a self-supporting double skin panel, insulated with polyurethane foam, with a tongue-and-groove joint. On large longitudinal pitches, the panel overlap can be foreseen. The panel is composed by 5 ribs that allow to increase the static resistance. It is available in different insulating core thicknesses for building's roofs. The panels can be used for pitched roof, but you can also use it vertically for walls cladding. 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.

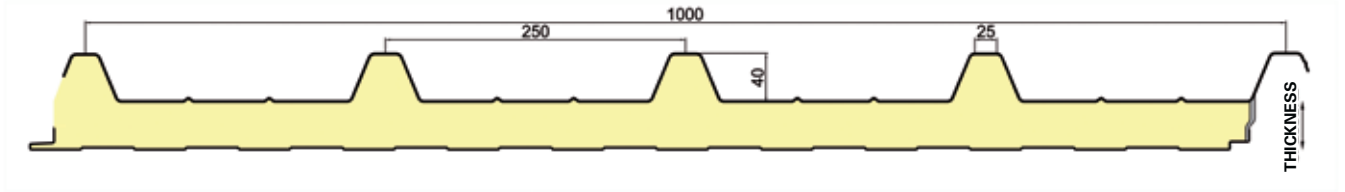
ADVANTAGES

- High thermal and mechanical resistance
- Design flexibility and large modularity
- Integration of roof windows and flashings.

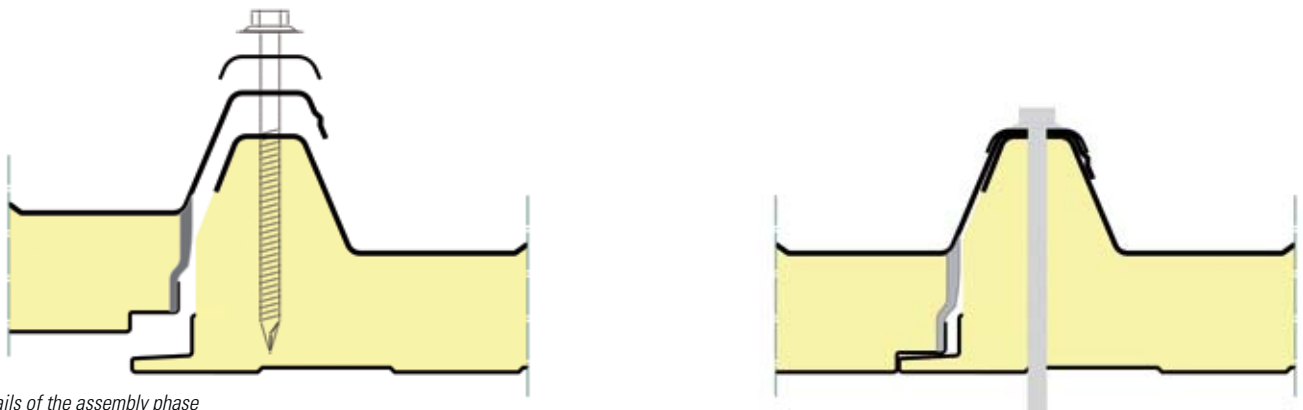


INSTRUCTIONS OF USE

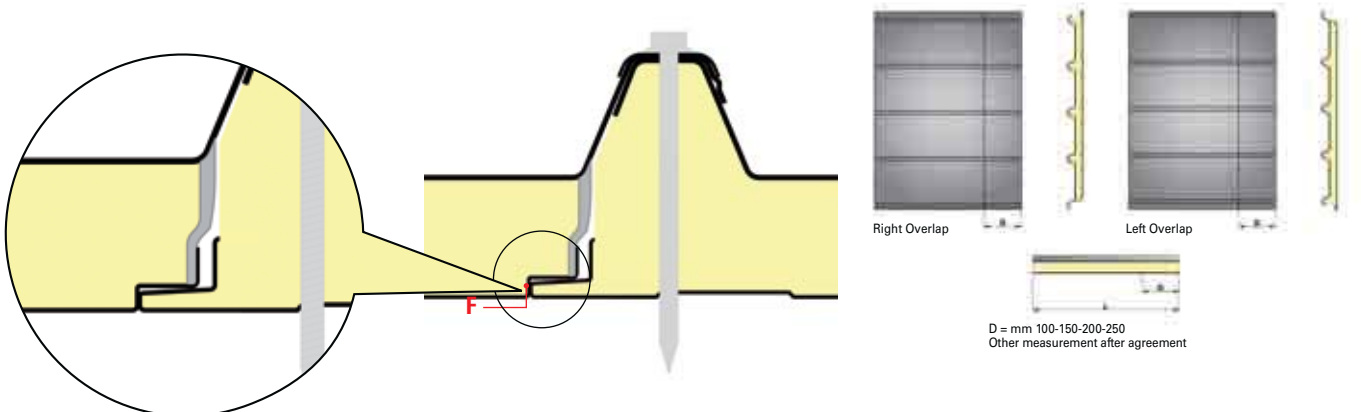
For the use of the panels and the related limits, please consult the technical data sheet available on www.isopan.it under the section "technical data sheet" and the "recommendations for the assembly of ribbed sheets and metal faced insulating panels" defined by AIPPEG Association of Italian Producers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



Panel transversal section

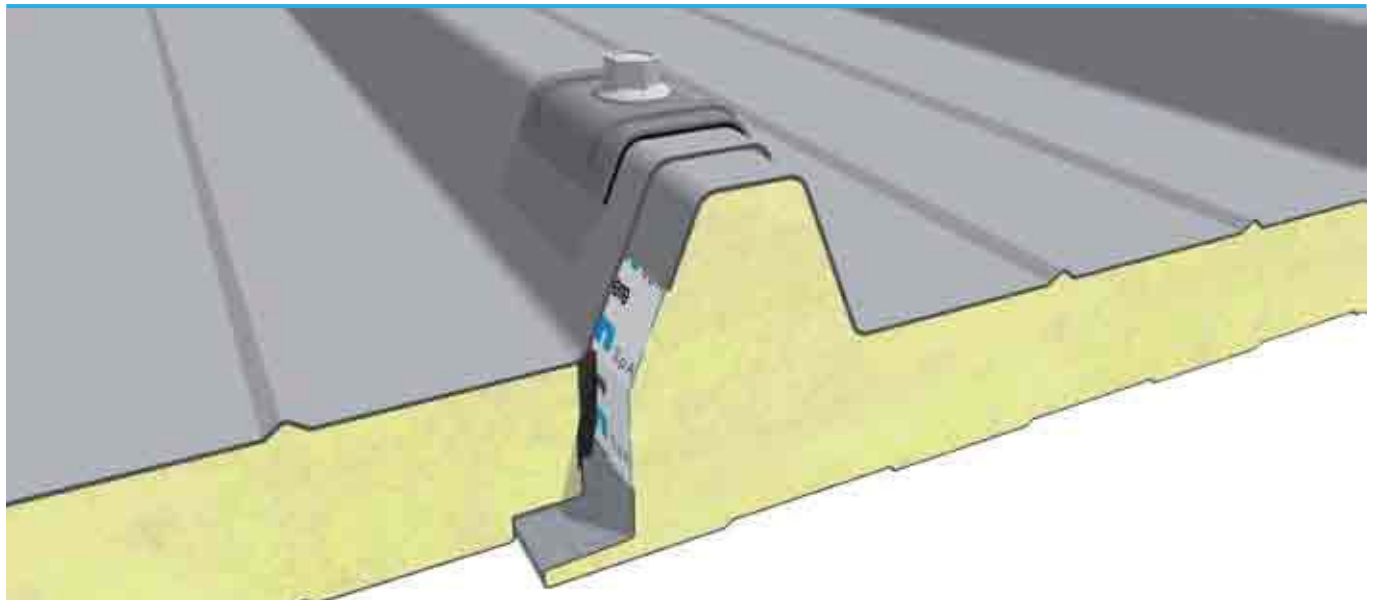


Details of the assembly phase



Details of the fixing system and the coupling tolerance

Details of the overlapping system



OVERLOAD SPANS

Steel sheet 0.4 mm – support 120 mm									Steel sheet 0.5 mm – support 120 mm								
UNIFORMLY DISTRIBUTED LOAD	PANEL NOMINAL THICKNESS mm								PANEL NOMINAL THICKNESS mm								
	30	40	50	60	80	100	120	150	30	40	50	60	80	100	120	150	
	MAX SPANS cm								MAX SPANS cm								
kg/m ²																	
80	270	290	310	340	390	440	470	500	320	350	390	420	500	570	630	730	
100	250	260	280	300	350	390	440	480	295	320	360	390	450	510	580	670	
120	230	245	260	280	320	360	400	460	270	300	330	360	420	480	540	620	
140	210	230	255	260	290	330	370	420	235	280	315	340	390	450	500	580	
160	200	220	230	255	285	310	340	390	210	260	300	320	370	420	480	550	
180	190	215	220	230	270	290	320	370	185	235	280	300	355	400	450	520	
200	170	200	210	220	260	270	300	340	170	210	250	290	330	380	430	500	
220	165	190	200	210	230	260	280	320	150	190	230	270	320	360	410	470	
250	135	170	190	200	220	240	260	300	130	170	205	240	300	340	385	445	

Aluminum sheet 0.6 mm – support 120 mm								
UNIFORMLY DISTRIBUTED LOAD	PANEL NOMINAL THICKNESS mm							
	30	40	50	60	80	100	120	150
	MAX SPANS cm							
kg/m ²								
80	255	290	325	370	435	505	565	605
100	225	255	290	315	385	455	510	590
120	205	230	255	285	340	400	460	540
140	190	210	230	255	315	370	420	495
160	170	190	215	230	285	335	385	455
180	155	170	200	215	265	310	360	420
200	145	250	180	200	240	285	335	395
220	130	155	170	190	225	255	310	355
250	110	145	155	165	200	230	275	335

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							
		30	40	50	60	80	100	120	150
0,5	kg/m ²	10,0	10,4	10,8	11,2	12,0	12,8	13,6	14,8
0,6	kg/m ²	11,8	12,2	12,6	13,0	13,8	14,6	15,4	16,6

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.

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.

THERMAL INSULATION

In accordance with the new standard EN 14509 Annex 10

U	PANEL NOMINAL THICKNESS mm						
	30	40	50	60	80	100	120
W/m ² K	0,71	0,54	0,44	0,37	0,28	0,22	0,19
kcal/m ² h °C	0,61	0,47	0,38	0,32	0,24	0,19	0,16

According to the calculation method EN ISO 69646

K	PANEL NOMINAL THICKNESS mm						
	30	40	50	60	80	100	120
W/m ² K	0,55	0,44	0,36	0,31	0,25	0,20	0,17
kcal/m ² h °C	0,48	0,38	0,32	0,27	0,22	0,17	0,15

bianco grigio



silver G9006



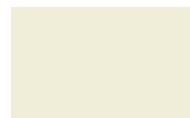
bianco G9002



verde muschio G6005



bianco G9010



testa di moro



grigio antracite G7016



rosso ossido G3009



blu genziana G5010



rosso antico



blu grigiastro G5008

