

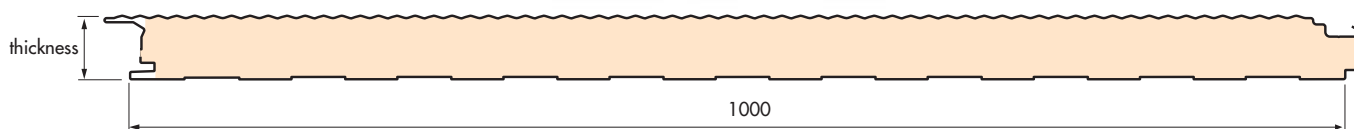


ISOPARETE 1000

Plissé



A panel designed for wall use. It features a patented system for fixing panels and slotting them together, and offers a finished product with good looks and durability. The fixing system, which is concealed in the joints, makes the design of the profile modular.



NOTES FOR CONSULTATION OF THE DATA CARD (reference should be made to norm AIPPEG¹ for anything not mentioned herein)

METAL SUPPORTS

- Rolled steel sheets galvanised by the Sendzimir process (UNI-EN 10147)
- Rolled steel sheets galvanised and pre-painted by the Coil Coating process
- Rolled sheets in aluminium alloy, with natural finish, embossed and pre-painted (UNI 9003)
- Pre-painting carried out by continuous process, with thickness on the visible side of 5 microns of primer and 20 microns of paint, in the following series: PS-PX-PVDF (special products can be supplied on request, with extremely high anti-corrosion properties).
- Rolled copper sheets (DIN 1787/17670/1791).

INSULATING CORE

Rigid foam with high insulating power with a base of polyurethane (PUR) or polyisocyanurate (PIR) resins, both self-extinguishing*, meeting the following qualitative standards:

- reference thermal conductivity at 10°C: $\lambda_m = 0.020 \text{ W/mK}$
- total density: $40 \text{ kg/m}^3 \pm 10\%$
- adhesion value to supports: 0.10 N/mm^2
- compression value at 10% deformation: 0.11 N/mm^2 .

THERMAL INSULATION

The heat transmission coefficients K stated in the sheet should be treated as useful design values, at 10°C; the calculation takes account of the two laminar resistances, external and internal, and of the calculated useful thermal

conductivity at 10°C (obtained by applying to λ_m the loading $m = 10\%$): $\lambda = 0.022 \text{ W/mK}$.

LOADING

- Deformation: a maximum curvature of $1/200 \text{ L}$ is permissible
- Deflection: it is assumed that the deflecting force is completely absorbed by the supporting sheets
- Shear: it is assumed that the shear force is partly absorbed by the supporting sheets and partly by the resin.

The data given in Tables 1 and 2 should be treated as indicative. It is left up to the designer to check them in relation to specific applications.

INSTRUCTIONS FOR FITTING

The designer should evaluate the conditions of use in relation to the local climatic situation. Special precautions must be taken over fixing panels with supports in aluminium or copper.

For further information, please consult the "RECOMMENDATIONS FOR FITTING RIBBED SHEETS AND INSULATED METAL PANELS" issued by AIPPEG.

* On request, Isopan can supply polyurethane resins that pass the strictest fire reaction tests, to obtain panels in class 0-1 according to the Italian law of 26/06/1984, class M1 according to the French standard P 92-501, B1 or B2 according to the German DIN 4102.

1 - **AIPPEG** (Associazione Italiana Produttori Pannelli ed Elementi Grecati): Italian Association of Panels and Ribbed Items Manufacturers.

FIXING INSTRUCTIONS

	WALL USE UNDER NORMAL CONDITIONS	WALL USE IN CONDITIONS OF STRONG DEPRESSION
Type of fixing:	Screw	Screw-plate 20 x 60 mm
Screw type and shank:	- self-tapping, $\varnothing 6.0 \text{ mm}$ for $\geq 3 \text{ mm}$ thick supports; - self-threading, $\varnothing 6.3 \text{ mm}$ for $< 3 \text{ mm}$ thick supports, with incorporated false washer; length: panel nominal thickness - 5 ÷ 10 mm	- self-tapping, $\varnothing 6.0 \text{ mm}$ for $\geq 3 \text{ mm}$ thick supports; - self-threading, $\varnothing 6.3 \text{ mm}$ for $< 3 \text{ mm}$ thick supports, without incorporated false washer; length: panel nominal thickness - 5 ÷ 10 mm
Quantity:	One for each panel for all supports	One for each panel for all supports

For panels with aluminium supports, please require ISOPAN's special instructions.

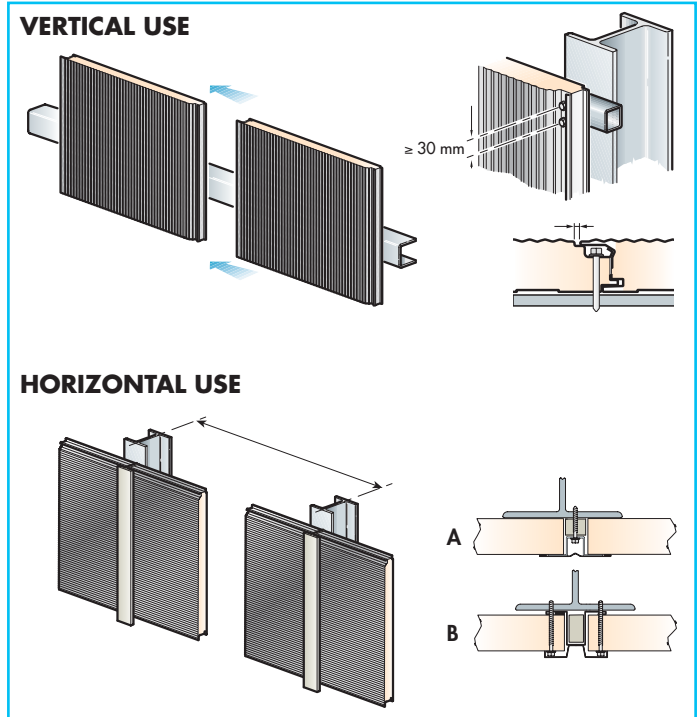
THERMAL INSULATION

K	NOMINAL THICKNESS OF PANEL mm				
	40	50	60	80	100
W/m ² K	0.50	0.40	0.34	0.26	0.21
kcal/m ² h °C	0.44	0.35	0.30	0.23	0.18

DIMENSIONAL TOLERANCES

DEVIATIONS mm	
Length	± 5
Effective width	± 1
Thickness	± 2
Orthometry and rectangularity	± 3

INSTALLATION EXAMPLE



OVERLOADS - SPANS

EVENLY DISTRIBUTED LOAD		SHEET STEEL THICKNESS 0.5 mm									
		▲ —▲					▲ —▲ —▲				
		PANEL THICKNESS mm					PANEL THICKNESS mm				
kg/m ²	daN/m ²	40	50	60	80	100	40	50	60	80	100
		MAX. SPAN cm					MAX. SPAN cm				
60	58	345	405	455	545	635	395	460	525	620	725
80	78	310	360	410	490	570	355	420	475	565	655
100	98	285	335	380	450	525	330	385	435	520	605
120	117	265	310	355	420	490	310	360	410	485	565
140	137	250	295	335	395	460	290	340	385	460	535
160	156	235	280	315	375	435	275	325	370	435	510

EVENLY DISTRIBUTED LOAD		ALUMINIUM SHEETS - THICKNESS 0.6 mm									
		▲ —▲					▲ —▲ —▲				
		PANEL THICKNESS mm					PANEL THICKNESS mm				
kg/m ²	daN/m ²	40	50	60	80	100	40	50	60	80	100
		MAX. SPAN cm					MAX. SPAN cm				
60	58	260	300	340	405	470	295	345	390	460	535
80	78	235	270	310	365	430	265	310	355	415	485
100	98	215	250	285	335	390	245	290	325	385	445
120	117	200	235	265	310	365	230	270	305	360	420
140	137	190	220	250	295	345	220	255	290	340	395
160	156	180	210	240	280	325	210	245	275	325	375

In the planning stage, together with the analysis of static load, the holding of the joint has to be taken into consideration.

WEIGHTS OF PANELS

WEIGHT	NOMINAL THICKNESS OF PANEL mm				
	40	50	60	80	100
kg/m ²	10.30	10.70	11.10	11.90	12.70

DRAFT OF SPECIFICATIONS

Nominal thickness: mm _____

Effective width: mm 1000

External support: micro-ribbed in galvanised steel or aluminium, _____ mm thick, pre-painted visible side: line _____ with 5 µm primer and 20 µm paint _____, colour _____

Internal support: micro-ribbed in galvanised steel or aluminium, _____ mm thick, pre-painted visible side: line _____ with 5 µm primer and 20 µm paint _____, colour _____

Insulation: Highly insulating rigid expanded polyurethane resin-based; Total density kg/m³ 40 ±10%

Coeff. of thermal transmission: K = _____ W/m² K = _____ kcal/m² h °C

Fixing: type of fixing device _____; type of screw _____; quantity _____