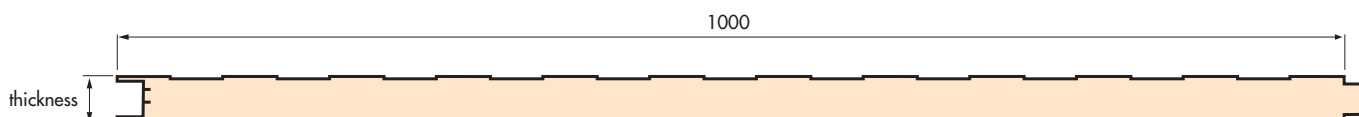




ISOBOX 1000

A panel designed for wall use. Characterized by the symmetry of its section and by the micro-ribbed surfaces, designed to satisfy the growing aesthetic demands in the field of designing external walls and internal partitions. This product represents a solution that goes hand in hand with economic, practical and functional characteristics.



NOTES FOR CONSULTATION OF THE DATA CARD (reference should be made to norm AIPPEG 1 for anything not mentioned herein)

METAL SUPPORTS

- Laminates of galvanized steel Sendzimir (UNI-EN 10147)
- Laminates of galvanized steel, prevarnished with a Coil Coating procedure
- Laminates of aluminium alloy, with a natural finish, embossed and prevarnished (UNI 9003)
- Prevarnishing carried out by means of a continual-cycle process, with a thickness of the visible side of 5 microns of primer and 20 microns of paint, as follows: PS-PX-PVDF (special products with a high level of anticorrosion are available upon request).
- Laminates of copper (DIN 1787/17670/1791).

INSULATING MASS

Rigid plastic with a high level of insulating power, made from polyurethane resins (PUR) and poliisocianurates (PIR) both self-extinguishable *, with the following standards of quality:

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

THERMAL INSULATION

The coefficients of thermal transmission "K" mentioned in the data card should be considered useful for projects, at 10°C; calculations have taken into consideration the two external and internal laminate resistances and the

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

WEIGHT CAPACITY

- Deformation: an indicator, similar to or below 1/200 L is established
- Flexion: it is believed that the pressure of flexion is entirely absorbed by the supporting steel
- Kerf: it is believed that the pressure of the cut is partly absorbed by the supporting steel and in part by the resin.

Information indicated in tables 1 and 2 is to be considered indicative. The project manager should check this data according to the specific applications.

FIXING INSTRUCTIONS

The project manager should evaluate the conditions of use according to the local climatic situation. Particular attention should be paid to the fixing of panels with aluminium or copper supports.

For further information, please consult "RECOMMENDATIONS FOR THE FIXING OF STEEL PANELS AND OF INSULATED METAL PANELS" issued by AIPPEG.

* Upon request, Isopan can supply polyurethane resins suitable to pass the most severe fire reaction tests, to obtain panels of class 0-1 according to D.M. 26/06/1984, class M1 according to the French norm P 92-501, B1 or B2 according to the German norm DIN 4102.

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

FIXING INSTRUCTIONS

WALL USE

- Type of fixing: PVC screw-washer (*)
- Screw type and shank: - self-tapping diam. 6.0 mm for surface support ≥ 3 mm
- self-threading diam. 6.3 mm for surface support < 3 mm with false washer incorporated
length: nominal thickness of panel + 20÷30 mm
- Quantity: Two for extreme support panels
One for intermediate support panels

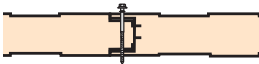
(*) In the case of strong depression a 50 mm diam. washer should be interposed. For panels with aluminium supports request special instructions.

OVERLOADS - SPANS

EVENLY DISTRIBUTED LOAD		SHEET STEEL THICKNESS 0,5 mm															
		▲————▲								▲————▲							
		PANEL THICKNESS mm								PANEL THICKNESS mm							
		25	30	40	50	60	80	100	120	25	30	40	50	60	80	100	120
kg/m ²	daN/m ²	MAX. SPAN cm								MAX. SPAN cm							
60	58	245	285	345	405	455	545	635	715	280	325	395	460	525	620	725	805
80	78	220	255	310	360	410	490	570	640	255	295	355	420	475	565	655	735
100	98	200	235	285	335	380	450	525	590	230	270	330	385	435	520	605	680
120	117	190	220	265	310	355	420	490	550	220	255	310	360	410	485	565	635
140	137	180	205	250	295	335	395	460	520	205	240	290	340	385	460	535	600
160	156	170	195	235	280	315	375	435	490	200	230	275	325	370	435	510	575

EVENLY DISTRIBUTED LOAD		SHEET STEEL THICKNESS 0,4 mm									
		▲————▲					▲————▲				
		PANEL THICKNESS mm					PANEL THICKNESS mm				
		25	30	40	50	50	25	30	40	50	
kg/m ²	daN/m ²	MAX. SPAN cm					MAX. SPAN cm				
60	58	225	255	315	365	260	295	360	420		
80	78	200	230	280	330	235	265	325	380		
100	98	185	210	260	300	215	245	300	350		
120	117	170	195	240	280	200	230	280	330		
140	137	160	185	225	265	190	215	265	310		

INSTALLATION EXAMPLE



WEIGHTS OF PANELS

STEEL THICKNESS	WEIGHT	NOMINAL THICKNESS OF PANEL mm									
		25	30	40	50	60	80	100	120		
0.4	kg/m ²	7.5	7.7	8.1	8.5	8.9	9.7	10.4	11.2		
0.5	kg/m ²	9.1	9.3	9.7	10.1	10.5	11.3	12.1	12.9		

THERMAL INSULATION

K	NOMINAL THICKNESS OF PANEL mm									
	25	30	35	40	50	60	80	100	120	
W/m ² K	0.75	0.64	0.56	0.50	0.40	0.34	0.26	0.21	0.18	
kcal/m ² h °C	0.67	0.57	0.49	0.44	0.35	0.30	0.23	0.18	0.15	

DIMENSIONAL TOLERANCES

DEVIATIONS mm	
Length	± 5
Effective width	± 1
Thickness ≤ 100 mm	± 2
Thickness > 100 mm	± 3
Orthometry and rectangularity	± 3

DRAFT OF SPECIFICATIONS

Nominal thickness:	mm _____
Effective width:	mm 1000
External support:	micro-ribbed in galvanized steel/aluminium thickness mm _____ prevarnished on the visible side series _____ with 5 microns of primer and 20 microns of paint _____ colour _____
Internal support:	micro-ribbed in galvanized steel/aluminium thickness mm _____ prevarnished on the visible side series _____ with 5 microns of primer and 20 microns of paint _____ colour _____
Insulation:	made of rigid plastic with a high level of insulating power made from polyurethane resins, total density kg/m ³ 40 ±10%,
Coeff. of thermal transmission: K = _____	W/m ² K = _____ kcal/m ² h °C
Fixing:	type of fixing _____ ; screw type and shank _____ ; qty _____