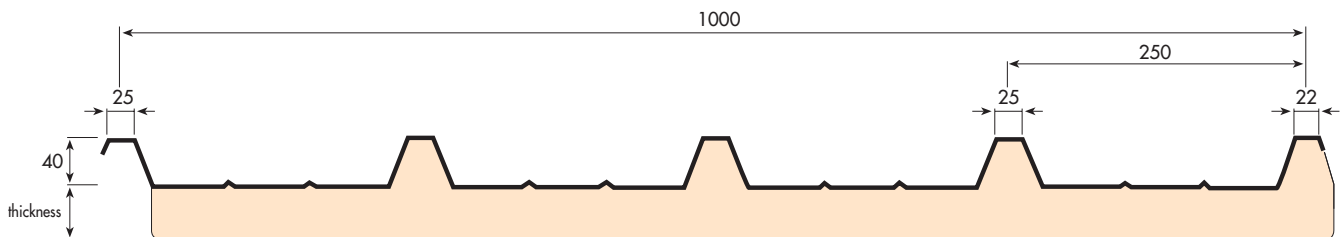




ISOGRECATA 1000

A panel designed for pitched covering surfaces. Characterized by its high economic benefits, it has an internal surface in embossed centesimal aluminium, while the external steel surface has the same finish as the Isocop-5 1000 finish.



NOTES FOR CONSULTATION OF THE DATA CARD (reference should be made to norm AIPPEG¹ 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: $\lambda_m = 0.020 \text{ W/mK}$
- 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): $\lambda = 0.022 \text{ W/mK}$.

WEIGHT CAPACITY

- Deformation: an indicator, similar to or below $1/200 \text{ L}$ 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

	FOR USE IN ROOFING	FOR USE IN WALLING
Type of fixing:	PVC screw-washer - cap - gasket	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	- 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
Quantity:	length: nominal thickness of panel + 60 \pm 70 mm One for each ridge for extreme supports or heading overlaps One every two ridges for intermediate supports	length: nominal thickness of panel + 20 \pm 30 mm One for each ridge for extreme supports or heading overlaps One every two ridges for intermediate supports

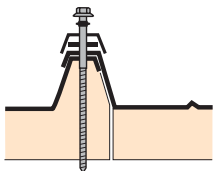
(*) In the case of strong depression a 50 mm diam. washer should be interposed. For panels with aluminium or copper supports request special instructions.

OVERLOADS - SPANS

SHEET STEEL											
EVENLY DISTRIBUTED LOAD		▲ ——— ▲					▲ — ▲ — ▲				
		THICKNESS STEEL mm					THICKNESS STEEL mm				
		0.5	0.6	0.7	0.8	1.0	0.5	0.6	0.7	0.8	1.0
kg/m ²	daN/m ²	MAX. SPAN cm					MAX. SPAN cm				
80	78	220*	235	250	265	285	250*	270	285	295	320
100	98	200*	220*	235	245	265	220*	245*	260	275	295
120	117	180*	200*	215*	230	250	200*	225*	240*	260	280
140	137	165*	185*	200*	215*	235	185*	205*	225*	240*	265
160	156	155*	170*	185*	200*	225	175*	195*	210*	225*	255

SHEET ALUMINIUM									
EVENLY DISTRIBUTED LOAD		▲ ——— ▲				▲ — ▲ — ▲			
		THICKNESS STEEL mm				THICKNESS STEEL mm			
		0.6	0,7	0.8	1.0	0.6	0.7	0.8	1.0
kg/m ²	MAX. SPAN cm								
80	160*	170	180	190	180*	190	200	220	
100	140*	155*	165	180	160*	175*	190	205	
120	130*	140*	155	170	145*	160*	185	190	
140	120*	130*	140*	160	135*	150*	160*	180	
160	110*	120*	130*	150	125*	140*	150*	170	

* Rates with strain limitations.



WEIGHTS OF PANELS

WEIGHT	NOMINAL THICKNESS OF PANEL mm			
	30	40	50	60
kg/m ²	6.50	6.90	7.30	7.70

THERMAL INSULATION

K	NOMINAL THICKNESS OF PANEL mm			
	30	40	50	60
W/m ² K	0.55	0.44	0.36	0.31
kcal/m ² h °C	0.48	0.38	0.32	0.27

DIMENSIONAL TOLERANCES

DEVIATIONS mm	
Length	± 10
Effective width	± 5
Thickness	± 2
Orthometry and rectangularity	± 3

DRAFT OF SPECIFICATIONS

Nominal thickness:	mm _____ out of ridge
Effective width:	mm 1000
External support:	ridged (ridge height mm 40, span mm 250) in galvanized steel thickness mm _____ prevarnished on the visible side series _____ with 5 microns of primer and 20 microns of paint _____ colour _____
Internal support:	natural, lacquered and embossed centesimal aluminium
Insulation:	made of rigid plastic with a high level of insulating power made from polyurethane resins, total density kg/m ³ 40 \pm 10%
Coeff. of thermal transmission: K = _____ W/m ² K = _____ kcal/m ² h °C	
Fixing:	type of fixing _____ ; screw type and shank _____ ; qty _____