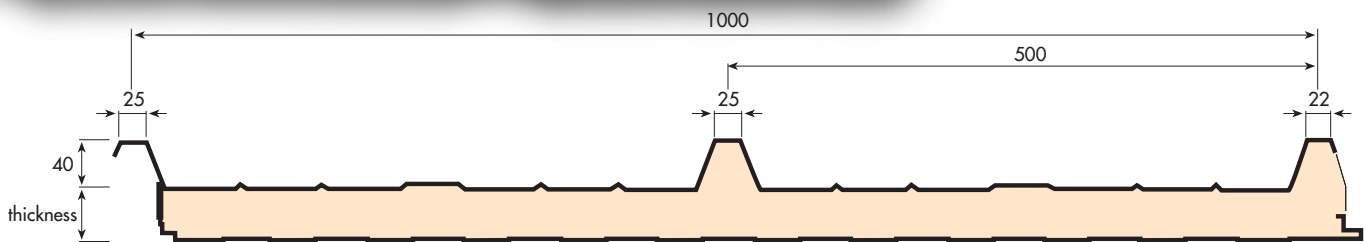
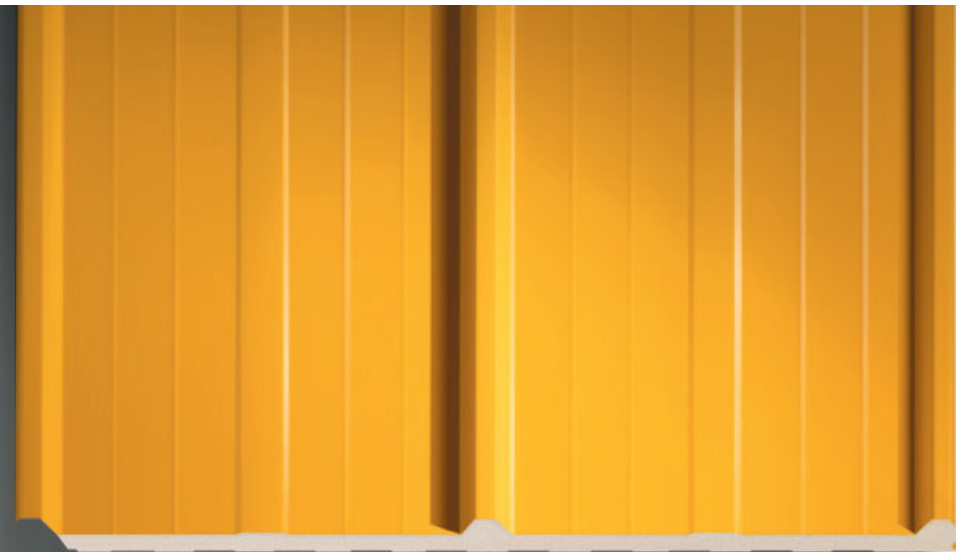




# ISOTEGO 1000

A panel designed for pitched covering surfaces. Characterized by its high economic benefits, especially when heavy working conditions are not foreseen. The product guarantees excellent aesthetic features and an excellent reliability with regards to rigidity. The possibility of using a single kind of panel for both roofing and walling simplifies design and material supply.



## NOTES FOR CONSULTATION OF THE DATA CARD (reference should be made to norm AIPPEG<sup>1</sup> 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:  $0.10 \text{ N/mm}^2$
- value of compression at 10% of deformation:  $0.11 \text{ N/mm}^2$ .

### 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  $\lambda_m$ ):  $\lambda = 0.022 \text{ W/mK}$ .

### 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

- Type of fixing: PVC screw-washer - cap - gasket
- Screw type and shank: - self-tapping diam. 6.0 mm for surface support  $\geq 3 \text{ mm}$   
- self-threading diam. 6.3 mm for surface support  $< 3 \text{ mm}$  with false washer incorporated  
length: nominal thickness of panel +  $60 \pm 70 \text{ mm}$
- Quantity: One for each ridge for all supports

### FOR USE IN WALLING

- PVC screw-washer (\*)
- self-tapping diam. 6.0 mm for surface support  $\geq 3 \text{ mm}$   
- self-threading diam. 6.3 mm for surface support  $< 3 \text{ mm}$  with false washer incorporated  
length: nominal thickness of panel +  $20 \pm 30 \text{ mm}$
- One for each ridge for all supports

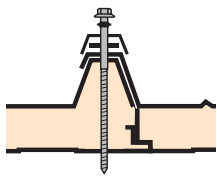
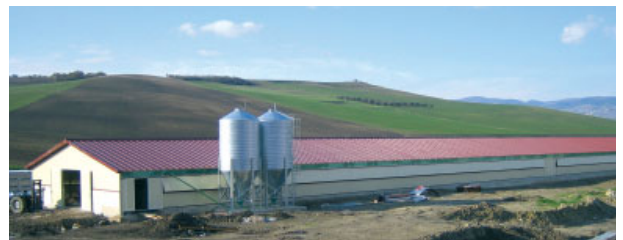
(\*) In the case of strong depression a 50 mm diam. washer should be interposed. For panels with aluminium or copper supports request special instructions.

## OVERLOADS - SPANS

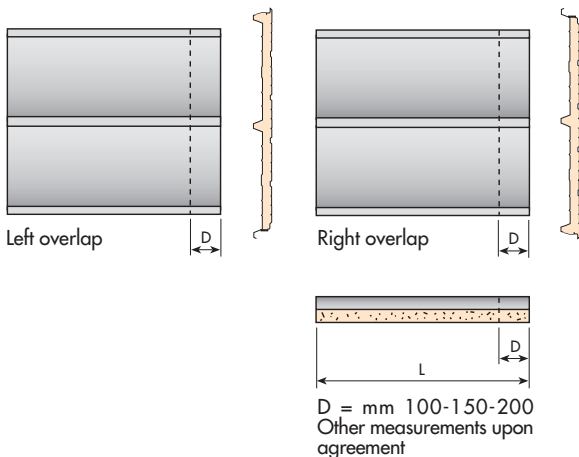
SHEET STEEL THICKNESS 0.5 mm											
EVENLY DISTRIBUTED LOAD		▲————▲					▲————▲————▲				
		PANEL THICKNESS mm					PANEL THICKNESS mm				
		30	40	50	60	80	30	40	50	60	80
kg/m <sup>2</sup>	daN/m <sup>2</sup>	MAX. SPAN cm					MAX. SPAN cm				
80	78	310	360	410	455	535	360	415	475	525	610
120	117	265	310	350	390	460	310	360	410	455	525
150	147	240	280	320	355	415	285	330	375	415	475
200	196	215	250	285	320	360	255	300	340	375	405
250	245	185	220	250	285	320	225	265	300	335	360

ALUMINIUM STEEL THICKNESS 0.6 mm											
EVENLY DISTRIBUTED LOAD		▲————▲					▲————▲————▲				
		PANEL THICKNESS mm					PANEL THICKNESS mm				
		30	40	50	60	80	30	40	50	60	80
kg/m <sup>2</sup>	daN/m <sup>2</sup>	MAX. SPAN cm					MAX. SPAN cm				
80	78	230	270	305	340	400	265	310	350	390	465
120	117	200	230	260	295	340	230	265	305	335	400
150	147	180	210	240	270	310	210	245	280	310	370
200	196	165	190	215	240	280	190	220	250	280	330

## INSTALLATION EXAMPLE



## DISPOSITION OF THE OVERLAP



## WEIGHTS OF PANELS

WEIGHT	NOMINAL THICKNESS OF PANEL mm						
	30	40	50	60	80	100	120
kg/m <sup>2</sup>	10.10	10.50	10.90	11.30	12.1	12.9	13.7

## THERMAL INSULATION

K	NOMINAL THICKNESS OF PANEL mm						
	30	40	50	60	80	100	120
W/m <sup>2</sup> K	0.59	0.47	0.39	0.33	0.25	0.20	0.17
kcal/m <sup>2</sup> h °C	0.52	0.41	0.34	0.29	0.22	0.18	0.15

## DIMENSIONAL TOLERANCES

DEVIATIONS mm	
Length	± 5
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 500) in galvanized steel/aluminium/copper thickness mm \_\_\_\_\_ prevarnished on the visible side series \_\_\_\_\_ with 5 microns of primer and 20 microns of paint \_\_\_\_\_ colour \_\_\_\_\_

Internal support: micro-ridged 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<sup>3</sup> 40±10%

Coeff. of thermal transmission: K = \_\_\_\_\_ W/m<sup>2</sup> K = \_\_\_\_\_ kcal/m<sup>2</sup> h °C

Fixing: type of fixing \_\_\_\_\_ ; screw type and shank \_\_\_\_\_ ; qty \_\_\_\_\_