



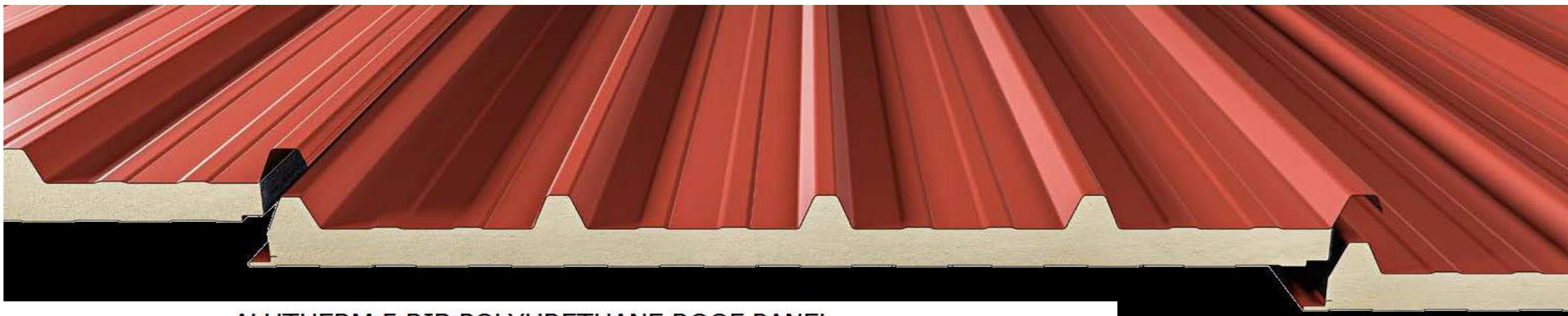
شركة الإستثمارية للصناعات الهندسية وتشكيل المعادن
INVESTMENT COMPANY FOR SANDWICH PANEL

I.C.P.S. Sandwich Panels

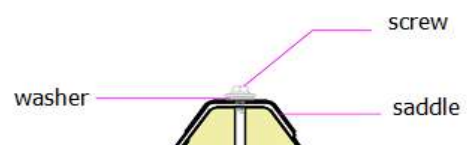
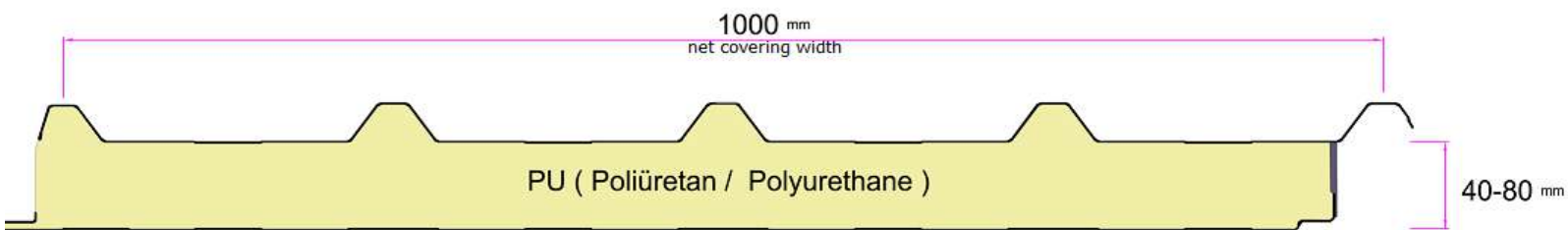
TECHNICAL FEATURES



5 Ridges Roof



ALUTHERM 5 RIB POLYURETHANE ROOF PANEL



Roof top Line

ICPS

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Metal Sheets

Hot dip galvanized steel by continuous process (UNI EN 10346) and pre -painted by means of a coil continuous process with Different painting cycles based on end use

Gemetric features

Length	Up to maximum transportable
Useful Pitch (mm)	1000
Insulating Thickness (mm)	40, 50, 60,
External face	Ribbed metal sheet with 5 ribs: -rib height 38 mm -rib pitch 250 mm
Internal face	micro-ridged lightly profiled metal sheet

PROTECTION OF THE PRE -PAINTE FACES

ALL pre- painted metal facings are supplied with an adhesive polyethylene protective film that prevents damage to the paint layer. If the Material is specifically requested without protective film , we assume no liability in case of damages to the paint .The protective film tha Covers the pre- painted panels must be completely removed during assembly and, in any case, within sixty days after the material Preparation. Lt is also recommended not to expose the pose the panels covered by a protective film to direct sunlight

Roof top Line

INSULATION

made with rigid polyurethane foam , having the following physical and mechanical features:

Compressive strength >0.11Mpa (at 10% of deformation)

Tensile strength>0.10Mpa according to EN 826

Shear strength > 0.10MPa according to EN 826

Panel thickness (mm) 40 50 60 80

Thermal conductivity coefficient =0.022 W/MK

The 95% closed cells guarantee an anhygoscopic structure

Operating temperature: minimum -40 maximum +80 °C

Flaming agent: N- Pentane in accordance with Montreal

protocol

Sheet thickness (mm)		Nominal panel thickness (mm)			
		40	50	60	80
0,4/0,4	kg/m ²	8,7	9,1	9,2	10,4
0,5/0,4	kg/m ²	10,2	10,6	11,4	12,1
0,5/0,5	kg/m ²	12,2	12,7	13,1	13,9

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Thermal Transmittance coefficient U:

Panel thickness (mm)	40	50	60	80
U [W/m ² K]	0.54	0.44	0.37	0.28

Thermal Transmittance coefficient R:

Panel thickness (mm)	40	50	60	80
U [W/m ² K]	1.25	2.27	2.70	3.57



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Ridges Roof

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Thermal Transmittance coefficient U:

Panel thickness (mm)	40	50	60
U [W/m ² K]	0.55	0.44	0.37
Kcal/m ² h °C	0.47	0.38	0.32

Thermal Transmittance coefficient R:

Panel thickness (mm)	40	50	60
U [W/m ² K]	0.54	0.44	0.37
Kcal/m ² h °C			

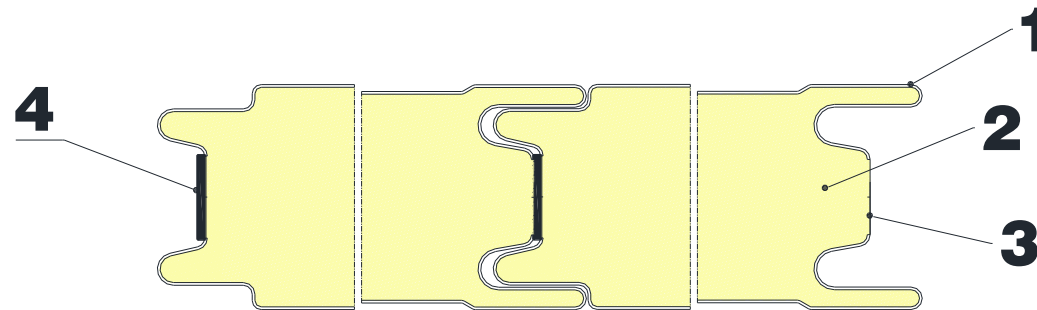
PANEL WEIGHT

Sheet thickness (mm)		Nominal panel thickness (mm)		
		40	50	60
0,4/0,4	kg/m ²	8,7	9,1	9,2
0,5/0,4	kg/m ²	10,2	10,6	11,4
0,5/0,5	kg/m ²	12,2	12,7	13,1

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- 1-steel lining , external, tandard thickness 4.0mm
- 2-polyurethane (PU) foam core
- 3-protection strip preventing diffusion and water infiltration
- 4-polyurethane seal



Thermal Transmittance coefficient U:

Panel thickness (mm)	40	50	60	80	100	120
W/m ² K	0.62	0.44	0,37	0,28	0,22	0,19
Kcal/m ² h °C	0.47	0,38	0,32	0,24	0,19	0,16



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mmended not to expose the panels covered by a protective : sunlight

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PANEL WEIGHT

Sheet thickness (mm)		40	50	60	80	100	120
0,4/0,4	kg/m2	7.9	8.3	8.7	9.5	10.3	11.2
0,5/0,4	kg/m2	8.6	9	9.4	10.2	11	11.9
0,5/0,5	kg/m2	9.2	9.6	10	10.8	11.6	12.5

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- Shear strength > 0.10 MPa according to EN 826
- Thermal conductivity coefficient $\lambda = 0.022$ W/MK
- The 95% closed cells guarantee an anhygroscopic structure
- Operating temperature: minimum – 40 C maximum +80 c

Foaming agent: N-Pentane in accordance with the Montreal protocol

ELGHT

Sheet thickness (mm)		40	50	60	80	100	120
0,4/0,4	kg/m2	7.9	8.3	8.7	9.5	10.3	11.2
0,5/0,4	kg/m2	8.6	9	9.4	10.2	11	11.9
0,5/0,5	kg/m2	9.2	9.6	10	10.8	11.6	12.5



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