

Roof sandwich panels are the insulated roof of industrial, commercial and agricultural buildings: a 5-rib trapezoidal outer skin for stiffness and drainage, a flat or micro-ribbed inner skin, and a PIR, PUR or rockwool core 40–150 mm thick, bonded on our continuous line into a panel that spans purlins at 2–4 m, seals at an overlapping side joint and is fixed through the ribs. We make them at Dilovası in 1 000 mm cover and lengths to 14 m, in the stock PPGI colours, with ridge, flashing and fixing kits.

5-rib outer skin	PIR · PUR · rockwool	40–150 mm	Purlins 2–4 m	Slope from 5 %
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One panel replaces sheet, insulation, liner and two passes of labour: the roof goes on in a day and is insulated when it is on. Our roof panel is the 5-rib PIR one that fills most of our containers to Iraq and the Gulf.

GRADES, STANDARDS AND TOLERANCES

Grade / standard	Yield (MPa)	Note
PIR core, 40 kg/m³, λ 0.022	—	standard; B-s1,d0 / B-s2,d0
PUR core, 40 kg/m³, λ 0.024	—	economy; B-s2,d0 / B-s3,d0
Rockwool core, 100–120 kg/m³, λ 0.040	—	non-combustible A2-s1,d0
Skins DX51D / S250GD + Z100–Z275 + PPGI	≈ 140 / 250	EN 10346 / EN 10169

Panels CE-marked to EN 14509 with declared thermal, mechanical and fire performance; core density and λ per the declaration.

THICKNESS, U-VALUE AND SPAN

Thickness	U-value (W/m²K)	Weight (kg/m²)	Purlin spacing at 0.75 kN/m²	at 1.0 kN/m²	at 1.5 kN/m² (snow)
40 mm	0.52	9.8	2.9 m	2.5 m	2.0 m
50 mm	0.42	10.2	3.4 m	3.0 m	2.4 m
60 mm	0.35	10.6	3.9 m	3.4 m	2.8 m
80 mm	0.27	11.4	4.5 m	4.0 m	3.3 m
100 mm	0.21	12.2	5.1 m	4.5 m	3.7 m
120 mm	0.18	13.0	5.6 m	5.0 m	4.1 m
150 mm	0.14	14.1	6.2 m	5.5 m	4.6 m

Two-span continuous panels, L/200; rockwool panels span about 20 % less and weigh 15–26 kg/m². Wind uplift and fixing pull-out govern on exposed sites.

ROOF PANEL DETAILS

Item	Value
Cover width	1 000 mm (overall 1 050–1 080 mm with lap rib)
Outer skin profile	5 ribs ≈ 40 mm high at 250 mm centres
Inner skin	micro-ribbed (or flat) 0.40 / 0.50 mm
Side joint	overlap rib with butyl seal; optional anti-condensation tape
End joint	200–300 mm overlap with core cut back (end-lap kit) or continuous panel
Min. roof slope	5 % continuous panels; 7 % with end laps
Length	2–14 m (16 m by truck)
Fixing	5.5 × (core + 60 mm) self-drilling screw + 19 mm saddle washer through rib crest
Max. purlin width for fixing	purlin flange ≥ 50 mm; distance from panel end ≥ 50 mm

Skylight panels (polycarbonate, same profile) and ridge-ventilation pieces are supplied to match.

SKINS, COATINGS AND COLOURS

Skin	Thickness	Zinc / paint	Where
PPGI PE 25 µm	0.40 / 0.50 / 0.60 mm	Z100–Z140, RAL 9002 / 9010 / 3009 / 7016 ...	outer and inner face standard
PPGI SMP / PVDF	0.50 / 0.60 mm	Z140–Z275	coastal, Gulf, colour warranty
Galvanized	0.40 / 0.50 mm	Z140–Z275, unpainted	inner face on a budget
Food-grade PE	0.50 mm	Z140, RAL 9010	food, cold-store interiors
Aluzinc / aluminium	0.50 / 0.60 mm	—	to order

Outer skin profiled (micro-rib, lined or 5-rib roof); inner skin micro-ribbed or flat.

STANDARDS

EN 14509 — self-supporting double-skin metal-faced insulating panels · EN 13501-1 fire classification; EN 13165 (PIR/PUR), EN 13162 (mineral wool), EN 13163 (EPS) cores · EN 10169 / EN 10346 skin steel · EN 10204 3.1

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Updated 22 September 2026 · figures are nominal; the mill certificate governs