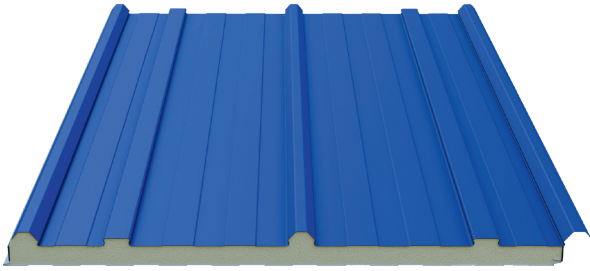


S5 Solar Roof Panel



Iskenderun



Balıkesir

Product Description

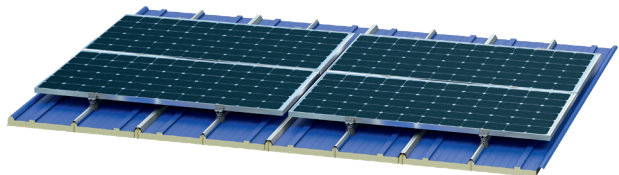
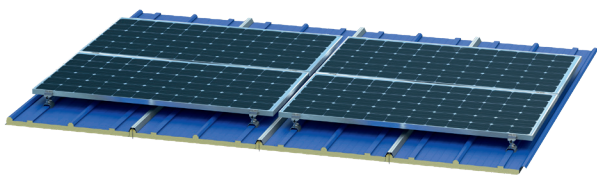
With the special clamp system of S5 Solar Roof Panel, the solar panels can be mounted directly without drilling the sandwich panel surface. In this way, the risks of corrosion and waterproofing caused by screw holes in the structures are eliminated, thus protecting the structural integrity of the roofs and extending the life of the building. One of the biggest advantages is that it can be assembled quickly thanks to the panel combination with lateral overlap. It ensures safe passage of wide openings with its indented form. It has a structure compatible with 60 and 72 cell photovoltaic modules with its special indented form.

Production Location

Balıkesir & Iskenderun

Product Application

- Industrial Buildings
 - Military Buildings
 - Public Buildings
 - Agricultural Buildings
 - Sports Facilities
 - Construction Site Buildings
 - Silos
 - Hypermarkets
 - Shopping Centers
 - Storehouse Halls
 - Administrative Buildings
- and all other concrete structures with steel or prefabricated load bearing systems.



Performance Advantages

Has the best thermal insulation values.

Fast and problem-free assembly saves time and labor.

PIR structure does not retain water and allow bacteria and pests to develop.

It has an environmentally friendly core filling.

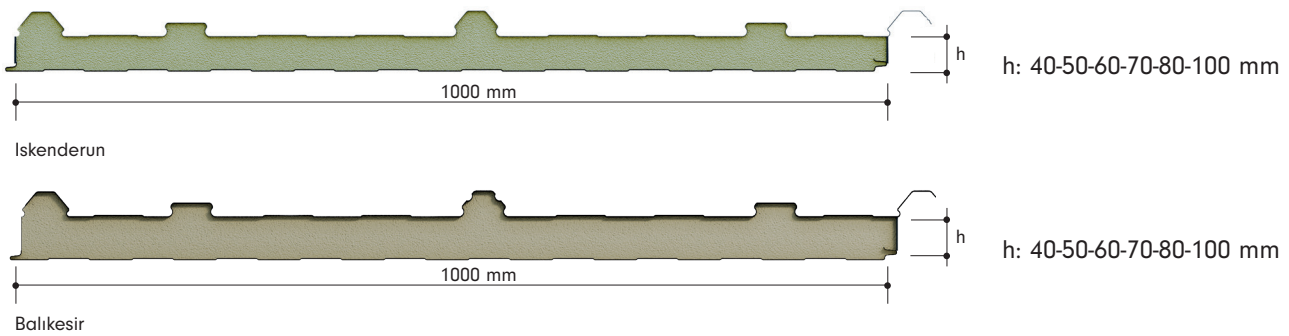
The colorful surface eliminates the need for additional coatings like plaster and paint.

Color options available in the RAL catalogue.

Surface paint options available according to application (Polyester, PvdF, Plastisol, PVC).

Usable as a roof cover for minimum 10% slope.

Measurements



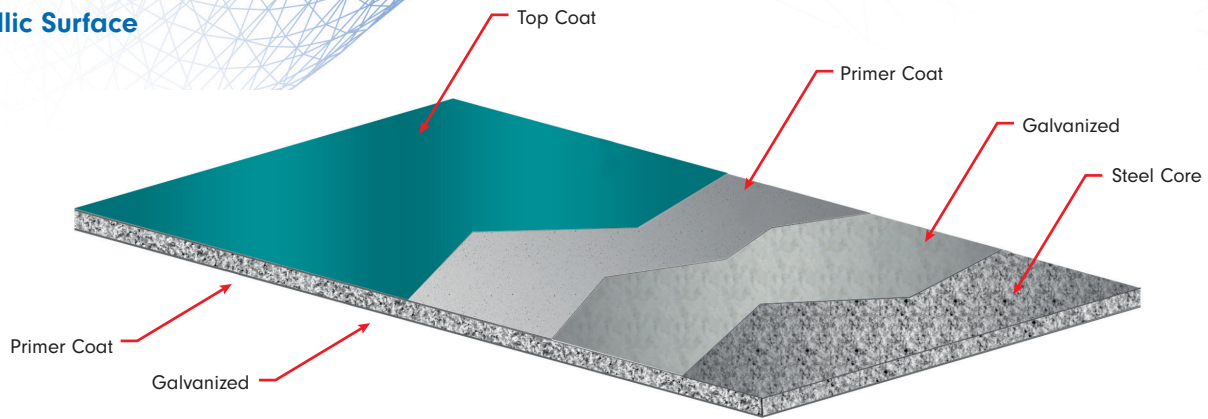
Modular Width	1,000 mm
Minimum Length	3 meters
Maximum Length	Depends on transport conditions.

SmartCore – PIR Elite – PIR



Density (EN 1602)	PIR: 40 (± 2) kg/m ³ & PIR Elite-SmartCore: 41 (± 2) kg/m ³
Thickness	40-50-60-70-80-100 mm
Thermal Conductivity (EN 13165)	PIR Elite-PIR: 0.022-0.024 & SmartCore: 0.019 W/mK
Dimensional Stability (EN 13165)	Level DS (TH) 11
Reaction to Fire (13501)	PIR Elite: B-s1,d0 & PIR: B-s2,d0
Water Absorption (EN ISO 354)	By Volume 2% (168 hours)
Closed Cell Percentage (EN 14509)	%95
Vapour Diffusion Resistance (EN 12086)	30-100
Heat Resistance	-200/+110 °C

Metallic Surface



Prepainted Galvanized Steel Surface

Metal Type	Prepainted Galvanized Steel
External Facing Thickness	0.50-0.80 mm
Internal Facing Thickness	0.40-0.80 mm
Thickness Tolerance (EN 10143)	Nominal
Thickness Tolerance (EN 10143)	DX51 D+Z Prepainted Galvanized Steel (last coat polyester paint on primer)
Paint Type	Polyester, PvdF, Plastisol, PVC

Load / Span Table

PPGS	PPGS	Double Span					
		PIR (mm)	150 cm	200 cm	250 cm	300 cm	350 cm
External Sheet Thickness (mm)	Internal Sheet Thickness (mm)						
0.5	0.4	40	315	165	101	67	46
0.5	0.4	50	377	209	129	91	65
0.5	0.4	60	438	252	165	116	84
0.5	0.4	70	541	311	203	143	106
0.5	0.4	80	560	339	231	167	126
0.5	0.4	100	682	426	298	226	170

• Load values kg/m² • Limit value L/200 • PPGS: Painted Galvanized Steel
* Iskenderun

PPGS	PPGS	Double Span					
		PIR (mm)	150 cm	200 cm	250 cm	300 cm	350 cm
External Sheet Thickness (mm)	Internal Sheet Thickness (mm)						
0,5	0,4	50	367	197	129	88	64
0,5	0,4	60	424	243	160	112	82
0,5	0,4	80	537	320	221	161	122
0,5	0,4	100	652	407	285	212	163

• Load values kg/m² • Limit value L/200 • PPGS: Painted Galvanized Steel
* Balıkesir

Coefficient of Thermal Conductivity

Panel Thickness	U Thermal Conductivity (W/m ² K)	R Thermal Conductivity (m ² K/W)	R Thermal Conductivity (ft ² °F h/Btu)
40 mm	0.550	1.818	10.324
50 mm	0.440	2.273	12.905
60 mm	0.367	2.727	15.485
70 mm	0.314	3.182	18.066
80 mm	0.275	3.636	20.647
100 mm	0.220	4.545	25.809

Mechanical Properties

Steel Surfaces Yield Strength	min. 220 N/mm ²
Core Material Shear Strength	min. 0.11 MPa
Core Material Shear Modulus	min. 2.0 MPa
Core Material Compressive Strength	min. 0.095 MPa
Creep (Yield) Coefficient	t: 100,000 hours (Free Load): 7 t: 100,000 hours (Snow Load): 2.4
Shear Strength After Sustained Load	t: 1,000 hours min. 0.04 MPa t: 2,000 hours min. 0.03 MPa t: 100,000 hours min. 0.01 MPa
Free Bending Moment Capacity	min. 2.30 KNm/m (Straight) min. 2.00 KNm/m (Reverse)
Free Torsional Stress	min. 100 MPa (Reverse) min. 115 MPa (Straight)

According to TSE EN 14509

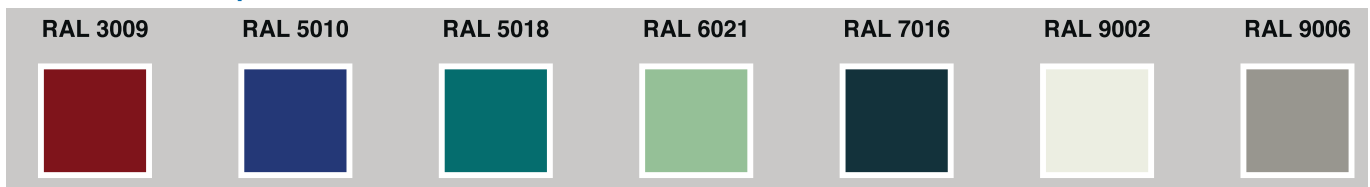
Tolerance Limits

Panel Length	Panel Thickness	Panel Cover Width	Deviation From Squareness
If L ≤ 3,000 mm ± 5 mm If L > 3,000 mm ± 10 mm	D ≤ 100 mm ± 2 mm	± 2 mm for all profiles	0.6% of s nominal cover thickness / (Width (w) x 0.006)

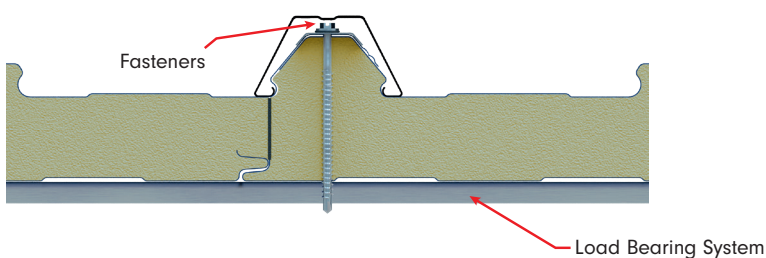
Standard Package Quantities

Thickness (mm)	40	50	60	70	80	100
Quantity	20	16	14	12	10	8

Standard Color Options



Joint Details



Transportation and Protection of Sandwich Panel

