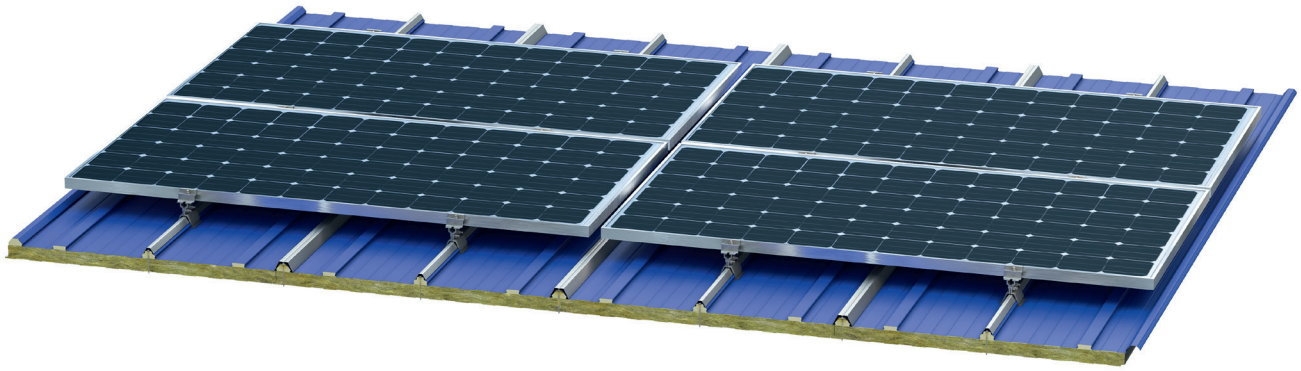
BS5T Mineral Wool Solar Capped Roof Panel



Product Information

It is the first and only mineral wool filled, solar compatible roof panel in the world. BS5T Rockwool Solar Cap Roof Panel's special clamp system, solar panels can be mounted directly without drilling the sandwich panel surface. In this way, the structural integrity of the roofs is protected and the life of the structure is extended by eliminating corrosion and waterproofing risks caused by screw holes in the structures. Lateral overlapping panel combination and cap usage are available. With its ribbed form, it enables wide openings to be crossed safely. Thanks to its special rib system, it is compatible with all photovoltaic modules in the sector. Mineral filling material is used as main core filling material. There are 3 PIR ribs suitable for mounting solar devices.

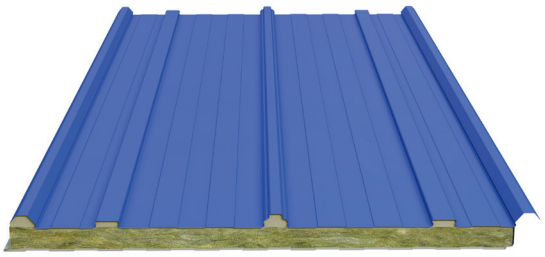
Production Plant

Balıkesir

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.



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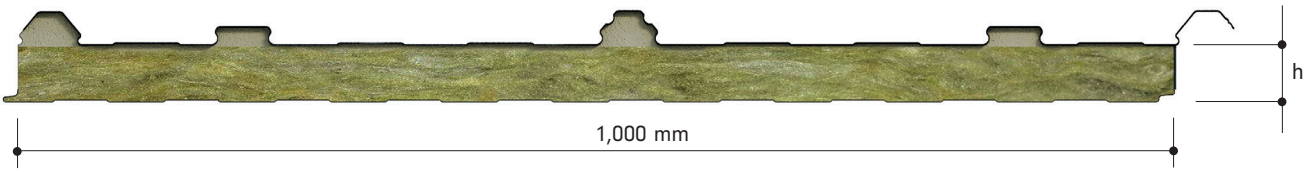
Performance Advantages

It has high fire resistance.
Fast and trouble-free installation saves both time and labor.
Thanks to its colorful surface, there is no need for additional coatings such as plaster or paint.
Color selection can be made from the RAL catalogue.
There are surface paint (Polyester, PvdF, Plastisol, PVC) options suitable for the place of use.
It can be used as a roof covering with a minimum slope of 7%.
Sound insulation performance is high.

Measurements



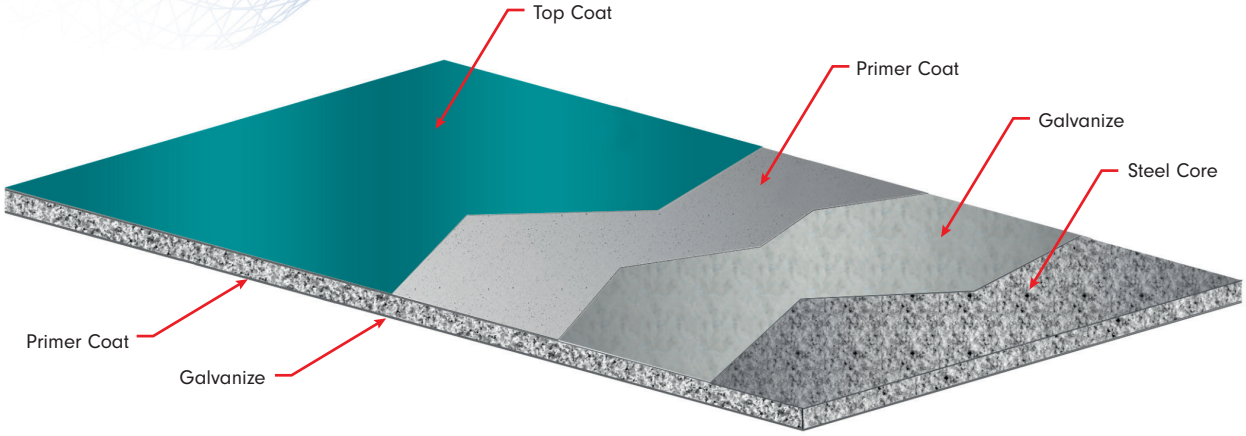
h: 50-60-70-80-100-120-130-150 mm

Favourable Width	1,000 mm
Minimum Length	3 meter
Maximum Length	Depends on transport conditions.

Mineral Wool

Mineral Wool Density	100 (± 10) kg/m^3
Mineral Wool Thickness	50-60-70-80-100-120-130-150 mm
Heat Insulation Coefficient (EN 13165)	0.043 W/mK
Inflammability Class (EN 13501-1)	A1
Water Absorption (EN ISO 354)	2% by Volume
Sound Insulation Rw (dB) ≥	30
Water Vapor Diffusion (EN 12086)	1
Heat Resistance	600 °C

Metal Surfaces



Prepainted Galvanized Steel Surface

Metal Type	Prepainted Galvanized Steel
External Facing Thickness	0.50-0.85 mm
Internal Facing Thickness	0.40-0.80 mm
Thickness Tolerance (EN 10143)	Nominal
Steel Quality (EN 10327)	DX51 D+Z Prepainted Galvanized Steel (last coat polyester paint on primer)
Paint Type	Polyester, PvdF, Plastisol, PVC

Load / Span Table

PPGS		Multi Span					
External Sheet Thickness (mm)	**Internal Sheet Thickness (mm)**	**Mineral Wool Thickness (mm)**	**150 cm**	**200 cm**	**250 cm**	**300 cm**	**350 cm**
0.5	0.4	50	496	257	157	105	74
0.5	0.4	60	553	298	188	129	93
0.5	0.4	70	611	339	219	153	112
0.5	0.4	80	668	381	251	178	133
0.5	0.4	100	785	465	316	230	175
0.5	0.4	120	900	550	381	282	218
0.5	0.4	150	1076	678	480	362	284

• Load: kg/m² • Deflexion: L/200 • PPGS: Prepainted Galvanized Sheet

Mineral Wool Thermal Conductivity

Panel Thickness	U Thermal Conductivity (W/m²K)	R Thermal Conductivity (m²K/W)	R Thermal Conductivity (ft² °F h/Btu)
50 mm	0.840	1.190	6.760
60 mm	0.700	1.429	8.111
70 mm	0.600	1.667	9.463
80 mm	0.525	1.905	10.815
100 mm	0.420	2.381	13.519
120 mm	0.350	2.857	16.223
130 mm	0.323	3.095	17.575
150 mm	0.280	3.571	20.279

Mechanical Properties

Steel Faces Yield Strength	min. 220 N/mm^2
Panel Tensile Strength	min. 0.018 MPa
Shear Strength of Core Material	min. 0.03 MPa
Shear Modulus of Core Material	min. 3.0 MPa
Compressive Strength of Core Material	min. 0.05 MPa
Shear Strength After Long-Continued Loading	t: 1,000 hours min. 0.02 MPa t: 2,000 hours min. 0.019 MPa t: 100,000 hours min. 0.017 MPa
Bending Moment Capacity in Span	min. 1.8 KNm/m (Upwards) min. 1.5 KNm/m (Downwards)
Torsion Stress in Span	min. 40 MPa (Downwards) min 50 MPa (Upwards)

According to TS EN 14509.

Tolerances

Panel Length	Panel Thickness	Panel Cover Width	Rectangularity
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 x 0.006)

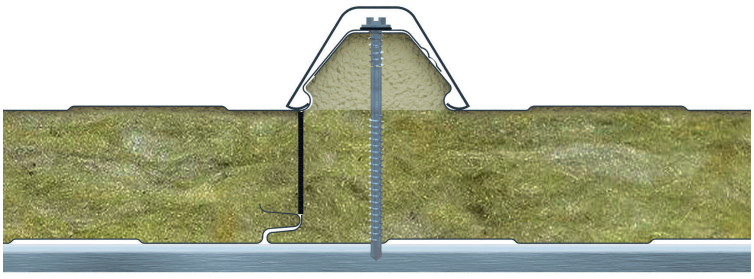
Standard Package

Thickness (mm)	50	60	70	80	100	120	130	150
Number	14	12	10	10	8	6	6	6

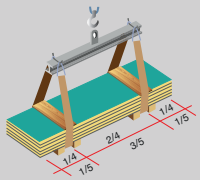
Standard Color Options

RAL 3009	RAL 5010	RAL 5018	RAL 6021	RAL 7016	RAL 9002	RAL 9006

Joint Details

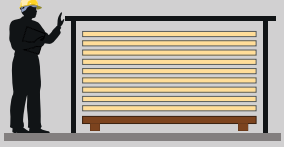


Transportation and Protection of Sandwich Panel

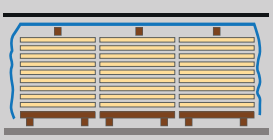


During hoisting, take precaution for the sling.

Do not drag panels in a pile, or on the roof purlins. Lift panels from both ends when moving or laying in place.



Panels to be strored on site for long periods should be stacked in covered areas. Wherever possible, always place stacks preferably on wooden wedges, against ground water.



For shorter periods, stacks should be arranged on sloppy areas with a simple scaffolding and polyethilen cover, leaving space for ventilation. Place stacks on a simple wedge.

Do not walk on panels.