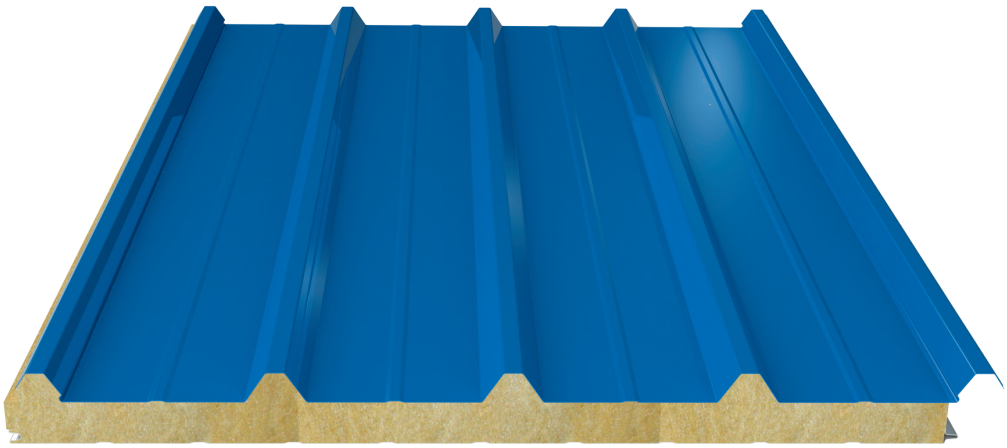
R5T Capped Roof Panels



Product Description

This product enables wide gaps to be passed safely with its five indented form used safely in the structures with a high fire risk and in the buildings requiring maximum fire resistance. The greatest advantage of the R5 capped panel is that the panel link elements are protected from external factors thanks to the the cap profile that covers the panel connection points and the prevention of the water leakage problems that can be experienced over time in connecting components. The panels can be assembled with side overlaps without using the cap profiles or the caps can be attached later according to preference. Also the ability to make the cap profiles in different colors by preference provides an advantage for appearance. By using the R5 panels, roofs with a 7% gradient can be built; while the ability to cover the connecting components makes them usable for façade paneling. The mineral wool filler provides high acoustic performance.

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

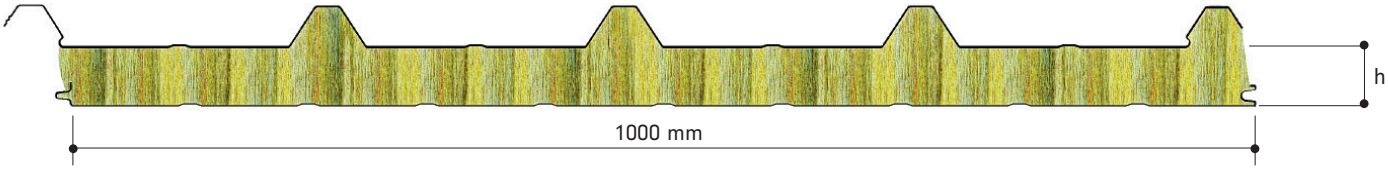
  and all other concrete structures with steel or prefabricated load bearing systems.

EN_PRR_R5T.02

Performance Advantages

The best fire resistance capacity.
Fast and problem-free assembly saves both time and labor.
High performance in both heat and sound insulation.
The colorful surface does not require additional coating like plaster or paint.
Color can be selected from the RAL catalogue.
There are surface paint options (Polyester, PvdF, Plastisol, PVC) suitable to the place of use.
Usable as a roof cover for minimum 7% slope.
Does not develop defects, rot or mold over time.
High sound insulation performance.
Can be used with minimum 0.60 mm cap profiles in the preferred color.

Measurements



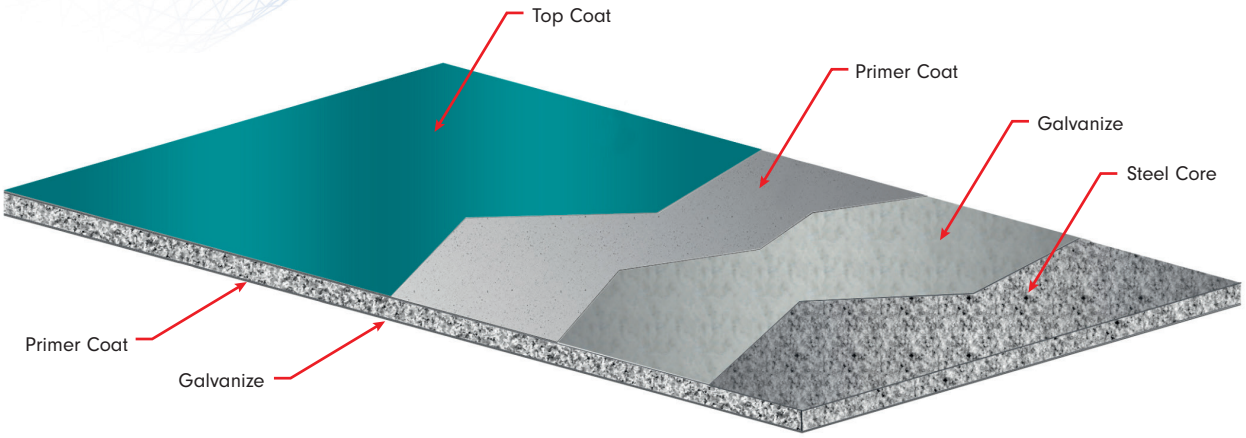
h: 50-60-70-80-100-120-130-150 mm

Favourable Width	1000 mm
Minimum Length	3 meters
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	0,043 W/mK
Inflammability Class (EN 13501-1)	A1
Water Absorption	Water Absorption 2% by Volume
Heat Resistance	600 °C
Sound Insulation Rw (dB) ≥	30
Water Vapor Diffusion (EN 12086)	1

Metal Surfaces



Prepainted Galvanized Steel Surface

Type	Prepainted Galvanized Steel
External Facing Thickness	0,55-0,80 mm
Internal Facing Thickness	0,50-0,80 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	PPGS	Double 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	0,5	50	498	261	160	108	76
0,5	0,5	60	556	301	191	132	96
0,5	0,5	70	614	343	223	157	116
0,5	0,5	80	672	386	255	183	138
0,5	0,5	100	789	470	320	235	180
0,5	0,5	120	906	556	386	288	224
0,5	0,5	130	965	599	419	315	246
0,5	0,5	150	1082	684	486	369	290

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

Mineral Wool Thermal Conductivity

Panel Thickness	U Thermal Conductivity (W/m^2K)	R Thermal Conductivity (m^2K/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
Bending Moment Capacity in Span	min. 1,8 KNm/m (Upwards) min. 1,5 KNm/m (Downwards)
Shear Strength After Long-Continued Loading	t:1.000 saat min. 0,02 Mpa t:2.000 saat min. 0,019 Mpa t:100.000 saat min. 0,017 Mpa
Torsion Stress in Span	min. 100 Mpa (Downwards) min. 115 Mpa (Upwards)

TSE EN 14509'a göre.

Tolerances

Panel Length	**Panel Thickness**	**Panel Cover Width**	**Rectangularity**
If L<=3000 mm., ±5mm If L>3000 mm, ± 10mm	D ≤ 100mm ±2mm	± 2mm for all profiles	0.6% of s ≤ nominal cover thickness (Width x 0.006)

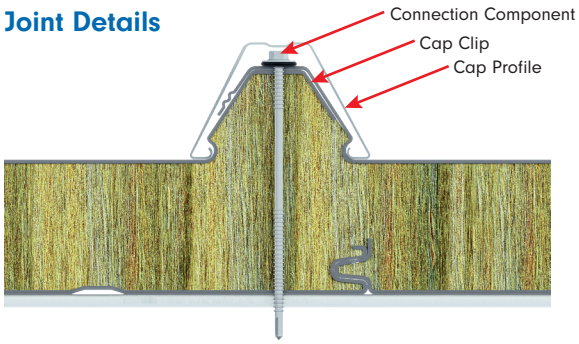
Standard Package

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

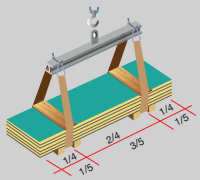
Standard Color Options

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

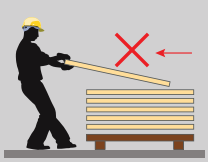
Joint Details



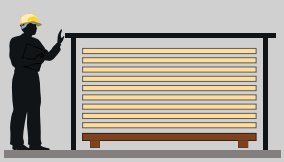
Transportation and Protection of Sandwich Panel



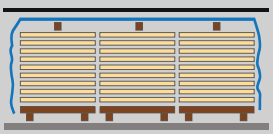
During hoisting take precaution for the sling.



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.