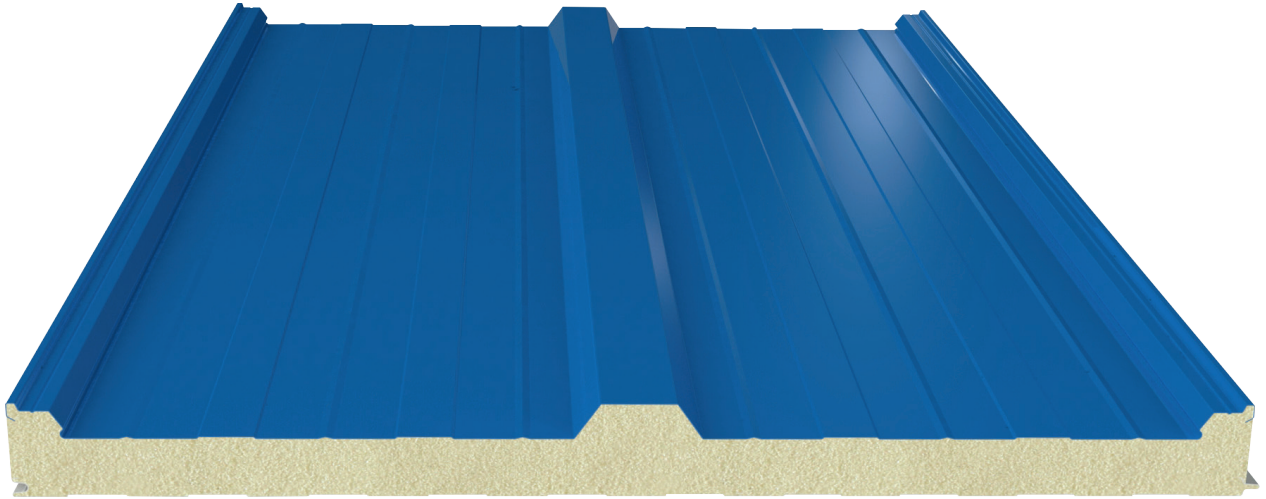


## R3 Roof Panel



### Product Description

The greatest advantage of the R3 capped panel is that the panel link elements are protected from external factors thanks to 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. Also the ability to make the cap profiles in different colors by preference provides an advantage for appearance. By using the R3 panels, roofs with a 5% gradient can be built; while the ability to cover the connecting components makes them usable for façade paneling.

### Production Plant

İskenderun

### 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

Best heat insulation values.

Fast and problem-free assembly saves both time and labor.

PIR does not keep water within its body and it does not accommodate bacteria and insects.

It has an environmentally friendly core filling.

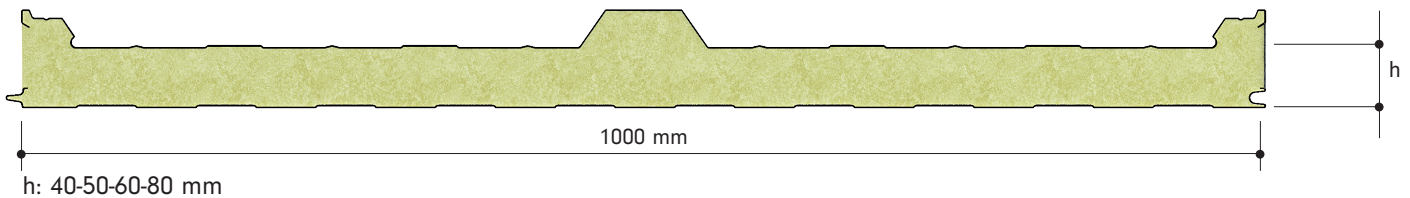
The colorful surface does not require additional coating like plaster or paint.

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 5% slope.

## Measurements



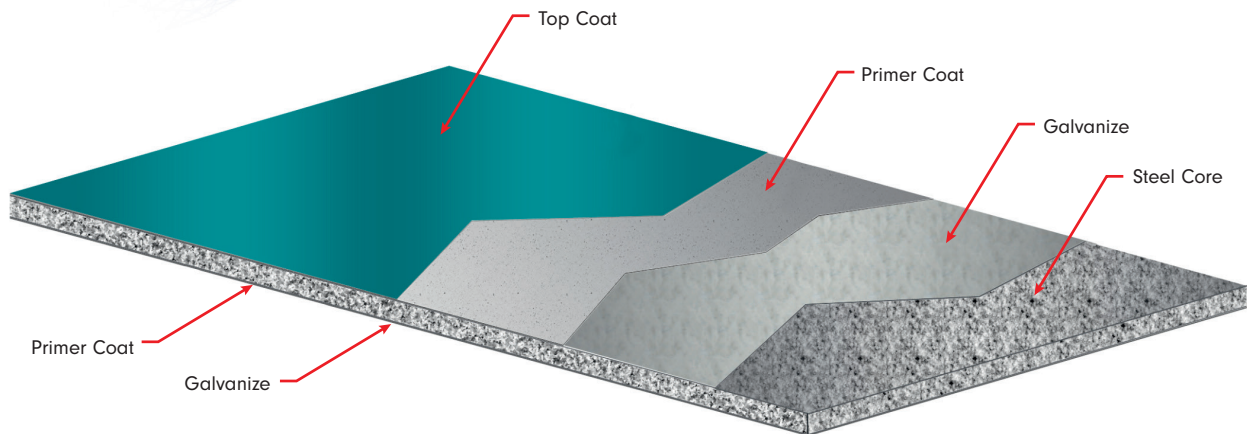
<b>Favourable Width</b>	1000 mm
<b>Minimum Length</b>	3 meters
<b>Maximum Length</b>	Depends on Transport Conditions

## Polyurethane (PUR) – Polyisocyanurate (PIR)



<b>Density (EN 1602)</b>	PIR: 40 (±2) kg/m <sup>3</sup> & SmartCore-PIR Elite: 41 (±2) kg/m <sup>3</sup>
<b>Thickness</b>	40-50-60-80 mm
<b>Thermal Conductivity (EN 13165)</b>	PIR Elite-PIR: 0,022-0,024 & SmartCore: 0,019 W/mK
<b>Dimensional Stability (EN 13165)</b>	Level DS(TH) 11
<b>Reaction to Fire (13501)</b>	SmartCore-PIR Elite: B-s1,d0 & PIR: B-s2,d0
<b>Water Absorption (EN ISO 354)</b>	By Volume 2% (168 hours)
<b>Closed Cell Percentage (EN 14509)</b>	95%
<b>Vapour Diffusion Resistance (EN 12086)</b>	30-100
<b>Heat Resistance</b>	-200/+110 °C

## Metal Surfaces



## Prepainted Galvanized Steel Surface

<b>Type</b>	Prepainted Galvanized Steel
<b>External Facing Thickness</b>	0,35-0,80 mm
<b>Internal Facing Thickness</b>	0,35-0,80 mm
<b>Thickness Tolerance (EN 10143)</b>	Nominal
<b>Steel Quality (EN 10327)</b>	Dx51 D+Z Prepainted Galvanized Steel (last coat polyester paint on primer)
<b>Paint Type</b>	Polyester, PvdF, Plastisol, PVC

## Load Bearing Tables

BGS	BGS	Double Span					
External Sheet Thickness (mm)	Internal Sheet Thickness (mm)	PIR (mm)	150 cm	200 cm	250 cm	300 cm	350 cm
0,5	0,4	40	335	169	100	65	44
0,5	0,4	50	397	212	131	88	62
0,5	0,4	60	456	254	163	112	82
0,5	0,4	80	579	341	229	164	123

Load: kg/m<sup>2</sup> • Deflection: L/200 • PPGS: Prepainted galvanized sheet

## Thermal Conductivity Values

Panel Thickness	U Thermal Conductivity W/m <sup>2</sup> K)	R Thermal Conductivity (m <sup>2</sup> K/W)	R Thermal Conductivity (ft <sup>2</sup> °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
80 mm	0,275	3,636	20,647



## Mechanical Properties

<b>Steel Surface Yield Strength</b>	min. 220 N/mm <sup>2</sup>
<b>Shear Strength of Core Material</b>	min. 0,11 Mpa
<b>Shear Modulus of Core Material</b>	min. 2,0 Mpa
<b>Compressive Strength of Core Material</b>	min. 0,095 Mpa
<b>Yield Coefficient</b>	t: 100.000 saat (Serbest Yük): 7,0 t: 100.000 saat (Kar Yüğü): 2,4
<b>Sheer Strength After Long-Continued Loading</b>	t: 1.000 saat min. 0,04 Mpa t: 2.000 saat min. 0,03 Mpa t: 100.000 saat min. 0,01 Mpa
<b>Bending Moment Capacity in Span</b>	min. 2,3 kNm/m (Straight) min. 2,0 kNm/m (Opposite)
<b>Torsion Stress in span</b>	min. 100 Mpa (Opposite) min. 115 Mpa (Straight)

According to TSE EN 14509








## Tolerance Values

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)

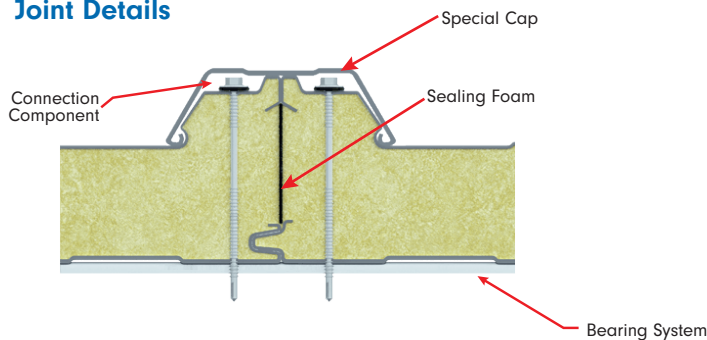
## Standard Package

Thickness (mm)	40	50	60	80
Number	20	16	14	10

## Standard Colour Options

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

## Joint Details



## Transportation and protection of sandwich panel

