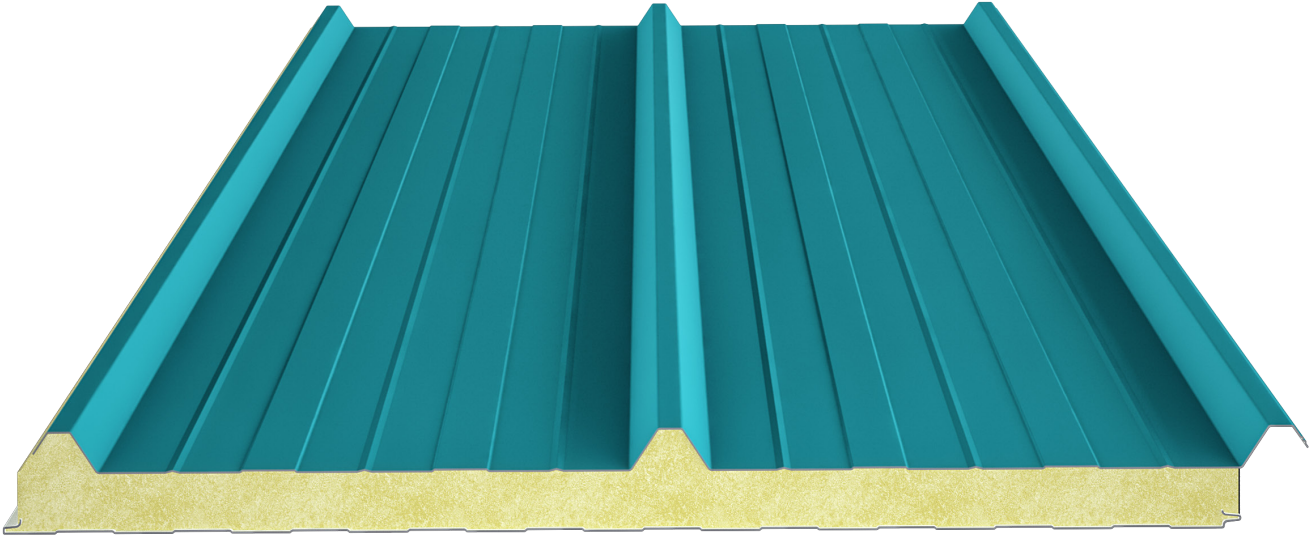


N3 Roof Panel



Product Information

It is a three-indented lateral connected sandwich panel. Roofs with a 10% gradient can be covered. Its biggest advantage is that it enables fast assembly thanks to lateral connected panel connection.

Production Plant

İstanbul, İskenderun, 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.

Performance Advantages

Best heat insulation values.

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

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

Thanks to n-Pentane which is used to inflate the Polyurethane, no damage is caused to nature.

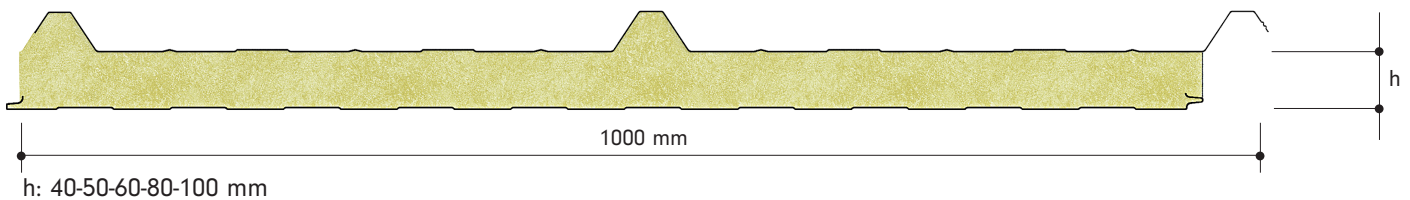
The colorful surface does not require additional coating like plaster or paint.

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 10% slope.

Measurements



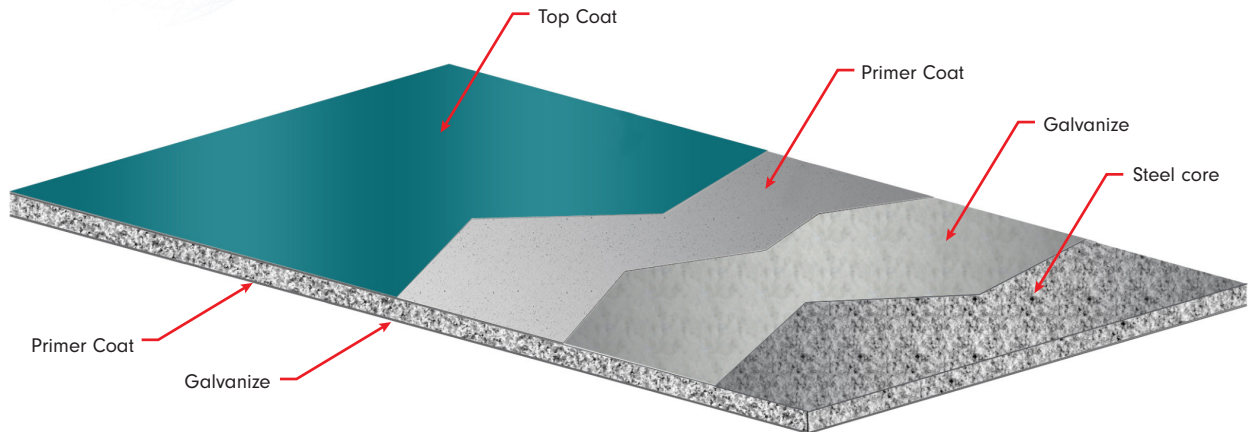
Favorable Width	1000 mm
Minimum boy	3 meters
Minimum Width	Depends on the transport conditions

Polyurethane (PUR) – Polyisocyanurate (PIR)



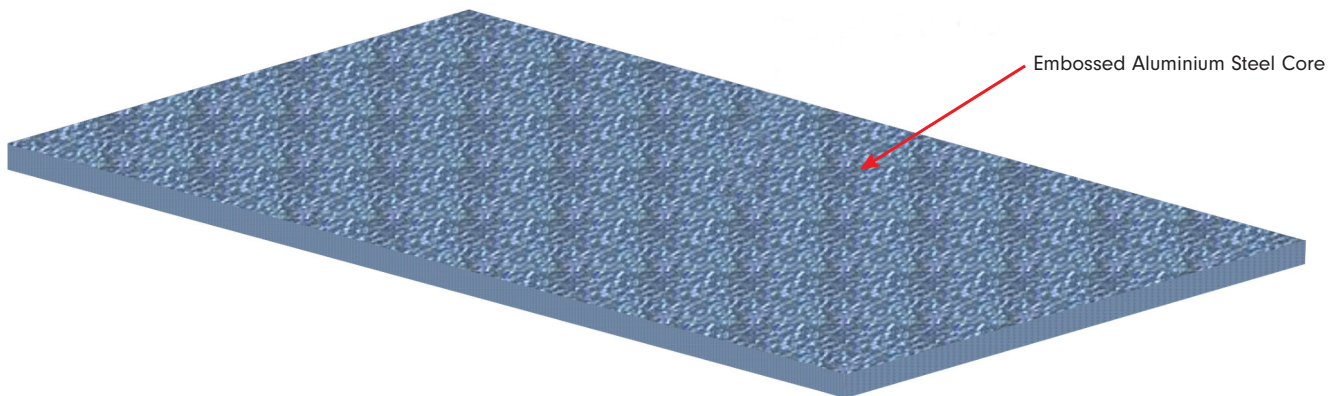
Polyurethane/Polyisocyanurate Density (EN 1602)	PUR: 40 (±2) kg/m ³ / PIR: 41 (±2) kg/m ³
Polyurethane/Polyisocyanurate Thickness	40-50-60-80-100 mm
Thermal Conductivity (EN 13165)	0,022-0,024 W/mK
Dimensional Stability (EN 13165)	Level DS (TH) 11
Reaction to Fire (EN 13501)	B. S2 . d0/B.S1.d0
Water Absorption (EN ISO 354)	2% by volume (168 hrs)
Closed cell rate (EN 14509)	95%
Vapour Diffusion Resistance (EN 12086)	30-100
Heat Resistance	-200 /+110 °C

Steel Surfaces



Prepainted Galvanized Steel Structure

External Facing Thickness	0,50-0,70 mm
Internal Facing Thickness	0,40-0,70 mm
Thickness Tolerance (EN 10143)	Nominal
Steel Quality (EN 10327)	Dx51 D+Z Prepainted Galvanized Steel (last coat polyester paint on primer)
Hot Dipped Coated Steel Grade (EN 10327)	100-275 gr/m ²
Paint Type	Polyester, PvdF, Plastisol, PVC



Aluminium Steel Surface

Type	Aluminium
External Facing Thickness	0,50-0,70 mm
Internal Facing Thickness	0,50-0,70 mm
Thickness Tolerance (EN 485-4)	Nominal
Steel Quality (EN 485-2)	High Conditioned AW 3000 series Aluminium manufactured by Assan Aluminium
Condition (EN 485-2)	H16 - H26
Alloy (EN 485-2)	AW 300 series
Surface Appearance	Embossed or Prepainted
Temperature Resistance	-200 / +110 °C

Load Bearing Tables

PPGS	PPGS	Double Span									
External Sheet Thickness (mm)	Internal Sheet Thickness (mm)	PUR (mm)	150 cm	175 cm	200 cm	225 cm	250 cm	275 cm	300 cm	325 cm	350 cm
0,5	0,4	40	282	226	184	149	126	103	89	75	65
0,5	0,4	50	390	312	253	207	174	143	122	104	89
0,5	0,4	60	499	398	323	262	223	183	155	130	113
0,5	0,4	80	679	542	440	359	302	251	213	180	156
0,5	0,4	100	747	596	484	395	332	276	234	197	171

Aluminium	Aluminium	Double Span									
External Sheet Thickness (mm)	Internal Sheet Thickness (mm)	PUR (mm)	150 cm	175 cm	200 cm	225 cm	250 cm	275 cm	300 cm	325 cm	350 cm
0,5	0,4	40	224	167	130	101	81	66	53	44	37
0,5	0,4	50	297	196	170	133	108	87	71	58	49
0,5	0,4	60	367	238	207	162	134	105	86	72	59
0,5	0,4	80	495	326	282	223	180	146	121	98	82
0,5	0,4	100	545	358	311	245	198	161	133	107	90
0,7	0,5	30	221	164	126	98	78	62	51	42	35
0,7	0,5	40	328	245	189	146	118	94	77	63	54
0,7	0,5	50	430	320	246	191	153	122	100	83	70
0,7	0,5	60	537	402	305	238	190	158	123	103	87
0,7	0,5	80	716	534	412	320	256	205	167	139	117
0,7	0,5	100	788	588	453	352	282	226	184	153	129

*Load: kg/m² *Deflexion: L/200 *BGS: Prepainted Galvanized Sheet

Thermal Conductivity Values

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	0,497	2,011	11,418
50 mm	0,406	2,465	14,000
60 mm	0,342	2,921	16,584
80 mm	0,261	3,830	21,747
100 mm	0,211	4,739	26,911

Mechanical Properties

Steel Surface Yield Strength	min. 220 N/mm ²
Aluminium Surface Yield Strength	min. 140 N/mm ²
Panel Tensile Strength	min. 0,018 Mpa
Panel Tensile Modulus at Elevated Temperature	min. 0,04 Mpa
Shear Strength of Core Material	min. 0,11 Mpa
Shear Strength of Core Material	min. 1,5 Mpa
Compressive Strength of Core Material	min. 0,095 Mpa
Yield Coefficient	t=100.000 (hrs (Free Load): 7 t=100.000 (hrs(Snow Load): 2,4
Sheer Strength After Long-Continued Loading	t:1.000 hrs min. 35% t:2.000 hrs min. 30% t:100.000 hrs min. 7%
Bending Moment Capacity in Span	min. 2,5 KNm/m (Upwards) min. 1,5 KNm/m (Downwards)
Torsion Stress in span	min. 100 Mpa

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

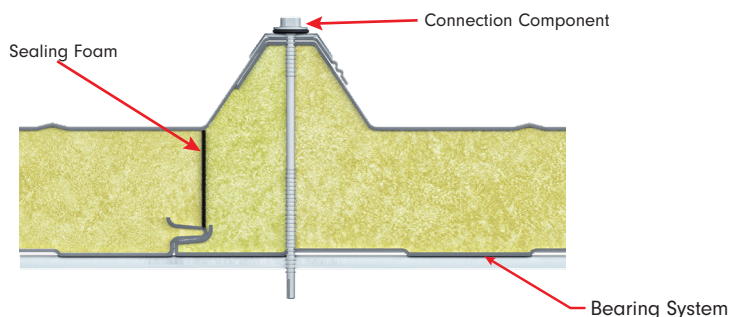
According to TSE EN 14509.

Thickness (mm)	40	50	60	80	100
Adet	20	16	14	10	8

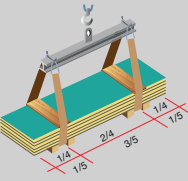
Standard Colour Options

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

Joint Details



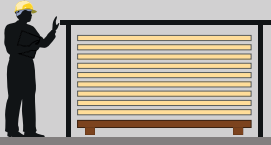
Transportation and Protection of Sandwich panel



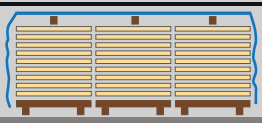
During hoisting take precaution for the sling.



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



Panel's to be stored 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 coverleaving space for ventilation. Place stacks on a simple wedge.



Do not walk on panels.