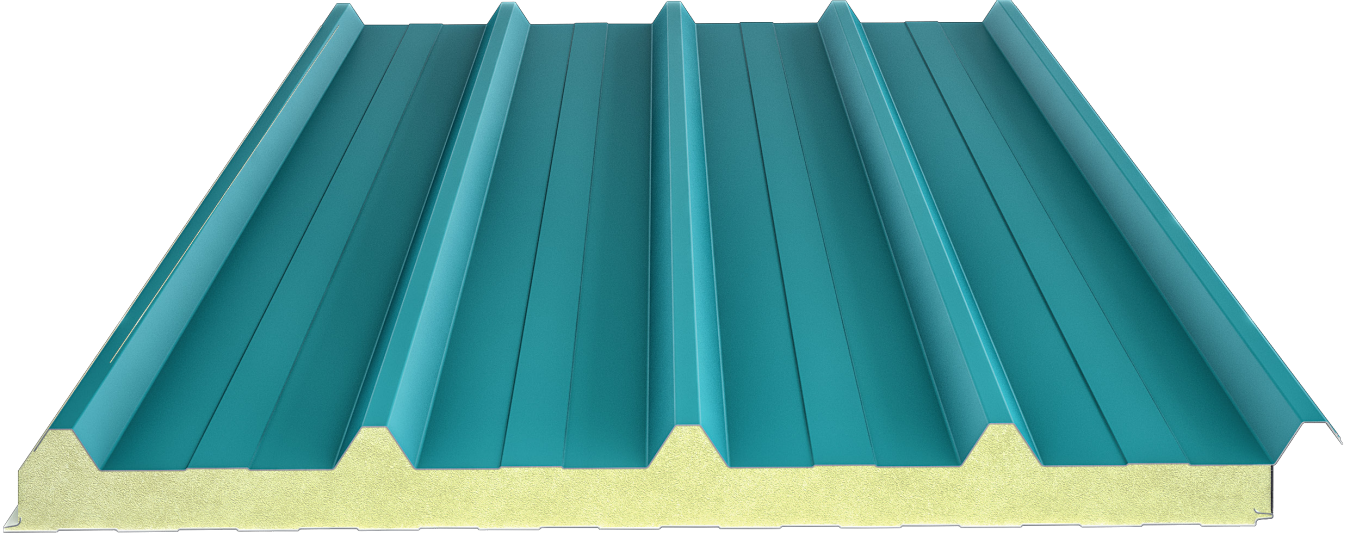


N5 Roof Panel



Product Information

It is a five-ridged 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. This product enables wide gaps to be passed safely with its indented form.

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.

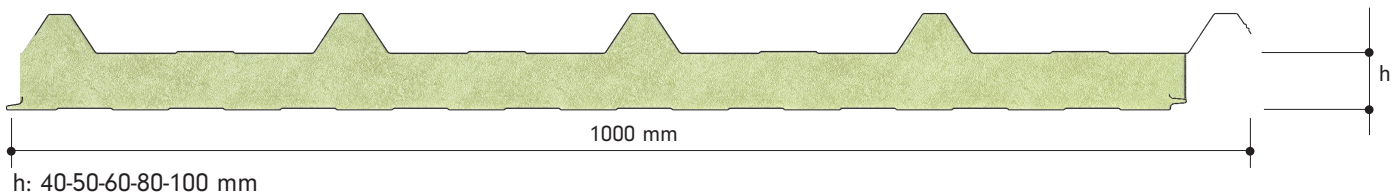
The colorful surface does not require additional coating like plaster or paint.

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



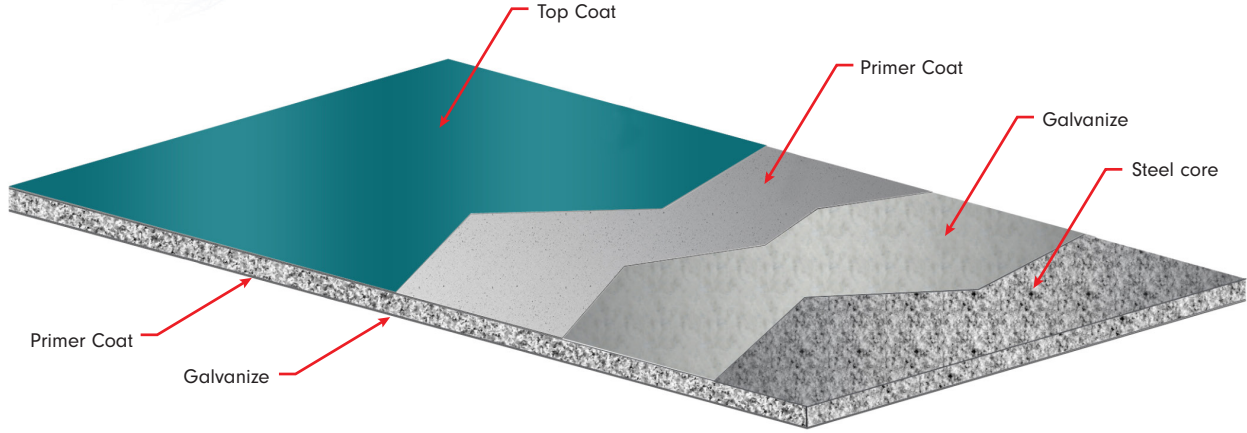
Favorable Width	1000 mm
Minimum boy	3 meters
Minimum Width	Depends on the transport conditions

Polyurethane (PUR) – Polyisocyanurate (PIR)



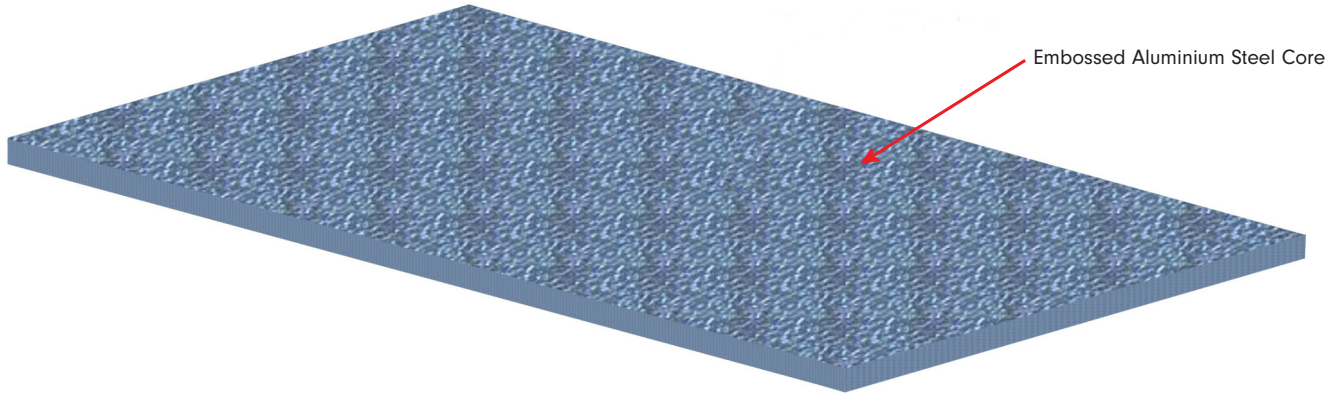
Polyurethane/Polyisocyanurate Density (EN 1602)	PUR: 40 (±2) kg/m ³ / PIR: 41 (±2) kg/m ³
Polyurethane (PUR)/Polyisocyanurate (PIR) Thickness	40-50-60-80-100 mm
Thermal Conductivity (EN 13165)	0,022-0,024 W/mK
Dimensional Stability (EN 13165)	Level DS (TH) 11
Reaction to Fire (EN 13501)	B. S2 . d0/B.S1.d0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

Steel Surfaces



Prepainted Galvanized Steel Structure

Type	Prepainted Galvanized Steel Structure
External Facing Thickness	0,50-0,70 mm
Alt Metal Kalınlığı	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	0,40-0,70 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	378	303	246	199	168	138	119	101	87
0,5	0,4	50	522	417	338	277	232	192	164	139	119
0,5	0,4	60	668	533	432	350	299	245	208	173	151
0,5	0,4	70	826	659	535	437	367	305	259	218	189
0,5	0,4	80	950	758	615	502	422	351	298	251	218
0,5	0,4	100	1045	834	677	552	464	386	328	276	240

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	300	224	173	135	108	89	71	59	49
0,5	0,4	50	397	262	227	178	144	117	95	78	65
0,5	0,4	60	491	319	277	217	180	140	116	96	79
0,5	0,4	70	602	396	343	271	219	178	147	119	100
0,5	0,4	80	693	455	395	311	252	204	169	137	114
0,5	0,4	100	762	501	434	342	277	225	185	150	126
0,7	0,5	30	295	219	169	132	105	83	68	57	47
0,7	0,5	40	439	327	253	196	157	125	103	85	72
0,7	0,5	50	575	428	330	256	204	164	134	111	94
0,7	0,5	60	718	537	408	319	254	211	165	138	117
0,7	0,5	70	871	649	501	389	311	249	203	169	142
0,7	0,5	80	1002	747	576	448	358	287	234	194	164
0,7	0,5	100	1102	822	633	493	394	315	257	214	180

*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 Modulus of Core Material	min. 1,5 Mpa
Compressive Strength of Core Material	min. 0,095 Mpa
Yield Coefficient	t=100.000 hrs (Free Load) t=100.000 hrs (Snow Load): 2,4
Sheer Strength After Long-Continued Loading	t: 1.000 saat min. 35% t: 2.000 saat min. 30% t: 100.000 saat 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

According to TSE EN 14509.

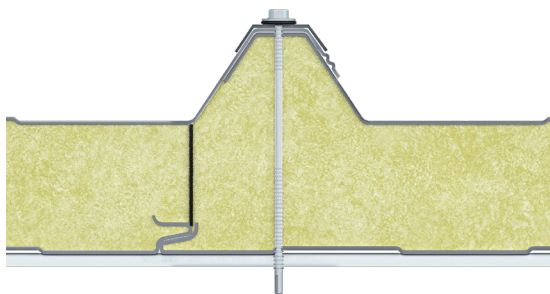
Tolerance Values

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)

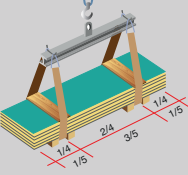
Standard Colour Options

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

Joint Details



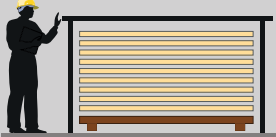
Transportation and Protection of Sandwich panel



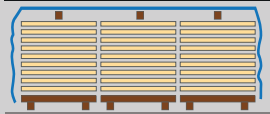
During hoisting take precaution for the sling.



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.