

N5TM Membrane Roof Panel



Product Description

This is a roof covering product which enables the necessary water and heat insulation needed in the roofs with 1,5% slope and has a high fire endurance performance. Compared to the on-site applications, it is much faster, easier and more economical. In N5T Membrane Roof Panel, the membrane is stuck to the metal instead of a filling material. It has high compression strength. The membrane prevents any change of shape, mark and foldings that may occur on the surface and creates a visual advantage and increases the load bearing capacity. It has PVC and TOP membrane options.

Production Plant

Balıkesir

Product Application

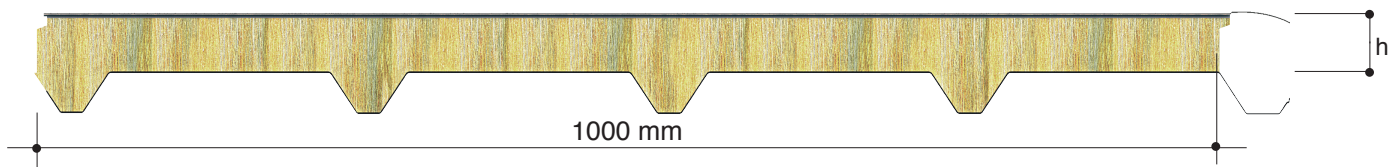
- Industrial Buildings
- Military Buildings
- Public Buildings
- Agricultural Buildings
- Sports Facilities
- Construction Site Buildings
- Silos
- Hypermarkets
- Shopping Centers
- Storehouse Halls
- Administrative Buildings

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

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 1,5 % slope.
 Does not develop defects, rot or mold over time.
 High sound insulation performance.

Measurements



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

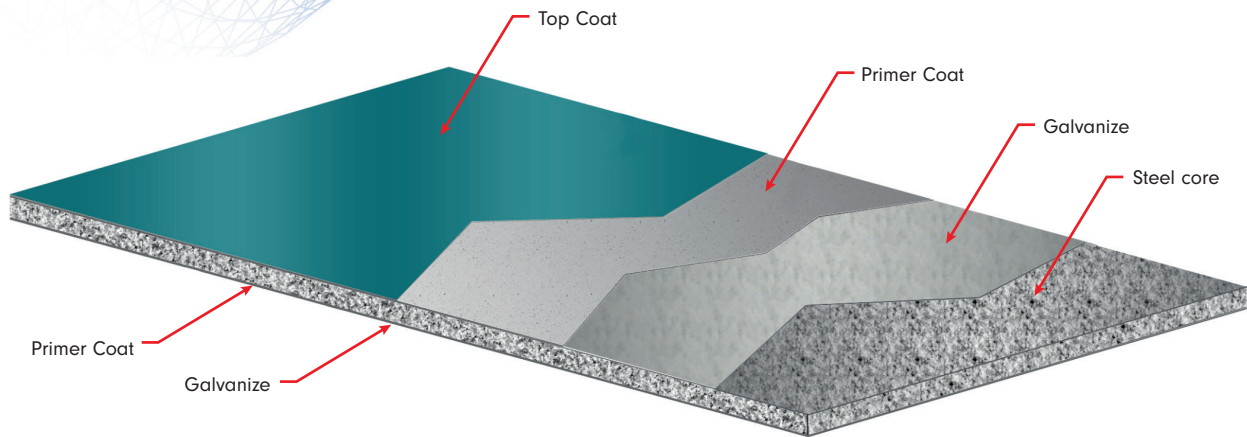
Favourable Width	1000 mm
Minimum Length	3 meters
Maximum Length	Depends on Transport Conditions

Stone Wool



Stone Wool Density	100 (±10) kg/m ³
Stone Wool Thickness	50-60-70-80-100-120-130-150 mm
Heat Insulation Coefficient	0,033 W/mK
Inflammability Class (EN 13501-1)	A1
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	0,50-0,70 mm
Internal Facing Thickness	0,50-0,70 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

Load / Span Table

BGS	BGS	Double Span									
External Sheet Thickness (mm)	Internal Sheet Thickness (mm)	Stone Wool Thickness (mm)	150 cm	175 cm	200 cm	225 cm	250 cm	275 cm	300 cm	325 cm	350 cm
0,5	0,5	50	193	167	145	128	113	102	93	85	77
0,5	0,5	60	233	203	176	155	138	124	113	103	95
0,5	0,5	70	245	213	184	163	145	130	118	108	99
0,5	0,5	80	314	273	237	209	186	168	153	140	129
0,5	0,5	100	394	343	298	263	235	212	193	176	163
0,5	0,5	120	434	377	328	289	258	234	212	194	179
0,5	0,5	130	451	392	341	301	269	243	220	202	186
0,5	0,5	150	469	408	354	313	279	253	229	210	194

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

Stone Wool Thermal Conductivity

Panel Thickness	U Thermal Conductivity (W/m ² K)	R Thermal Conductivity (m ² K/W)	R Thermal Conductivity (ft ² °F h/Btu)
50 mm	0,585	1,708	9,698
60 mm	0,497	2,011	11,418
70 mm	0,440	2,274	12,913
80 mm	0,382	2,617	14,861
100 mm	0,310	3,223	18,299
120 mm	0,261	3,831	21,756
130 mm	0,243	4,115	23,366
150 mm	0,224	4,464	25,347

According to TSE EN 14509.

Mechanical Properties

Steel Faces Yield Strength	min. 220 N/mm ²
Panel Tensile Strength	min. 0,018 Mpa
Panel Horizontal Tensile Strength	min. 0,04 Mpa
Shear Strength of Core Material	min. 0,06 Mpa
Shear Modulus of Core Material	min. 3,0 Mpa
Compressive Strength of Core Material	min. 0,07 Mpa
Bending Moment Capacity in Span	min. 2,5 KNm/m (Upwards) min. 1,5 KNm/m (Downwards)

According to TSE EN 14509.

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)

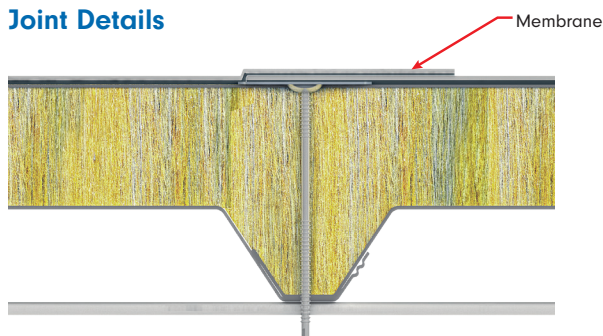
Standard Package

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

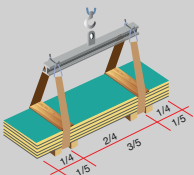
Standard Color Options

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

Joint Details



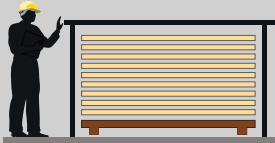
Transportation and Protection of Sandwich panel



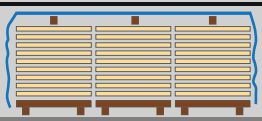
During hoisting take precaution for the sling.



Do not drag 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.