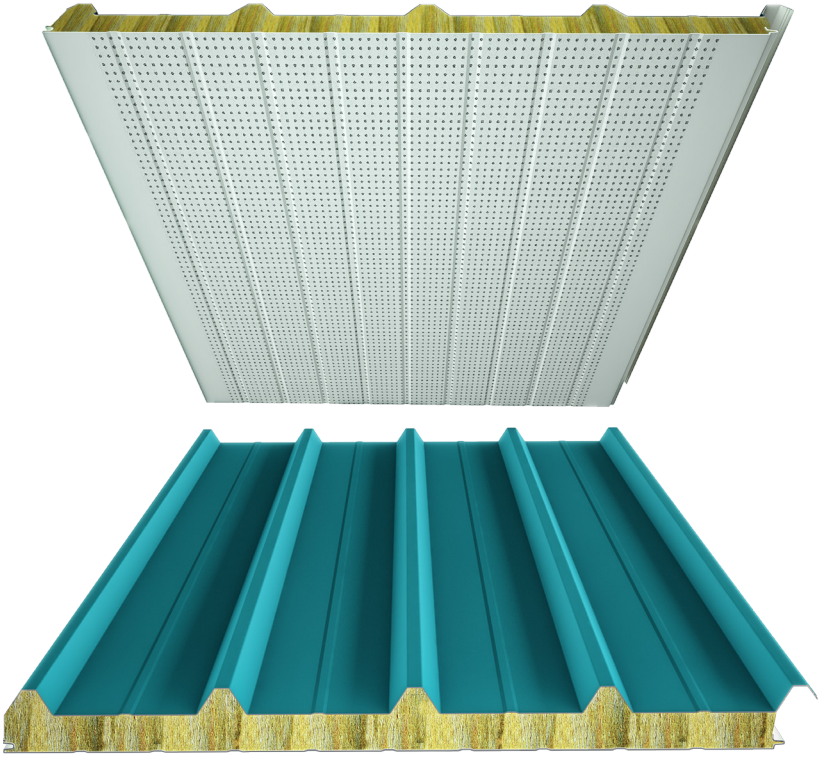
N5T Acoustic Roof Panel



Product Information

It has A-class sound absorption performance and high sound insulation performance. Moreover, it can be used safely in the buildings where there is high risk of fire and which requires maximum fire endurance thanks to its rockwool inner core.

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

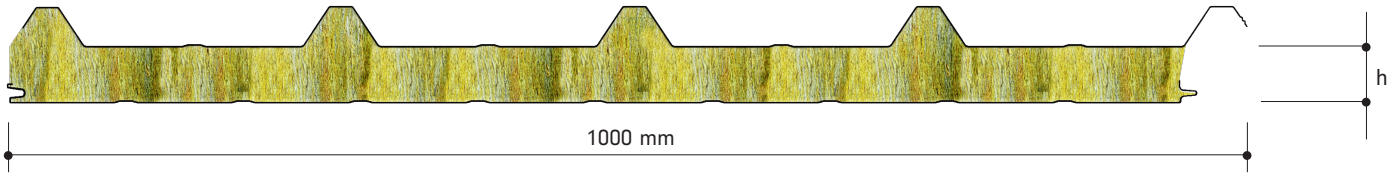
And all other concrete structures with steel or prefabricated load bearing systems

N5T 1701

Performance Advantages

The best fire endurance values.
Fast and problem-free assembly saves both time and labor.
Apart from heat insulation, high performance in 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.
It can be used with minimum 7% slope as roof covering
It does not wear out or decay or become mouldy in time.
High sound insulation performance.
. It can be used with cap profile in any desired colour of minimum 0,60 thick.

Measurements



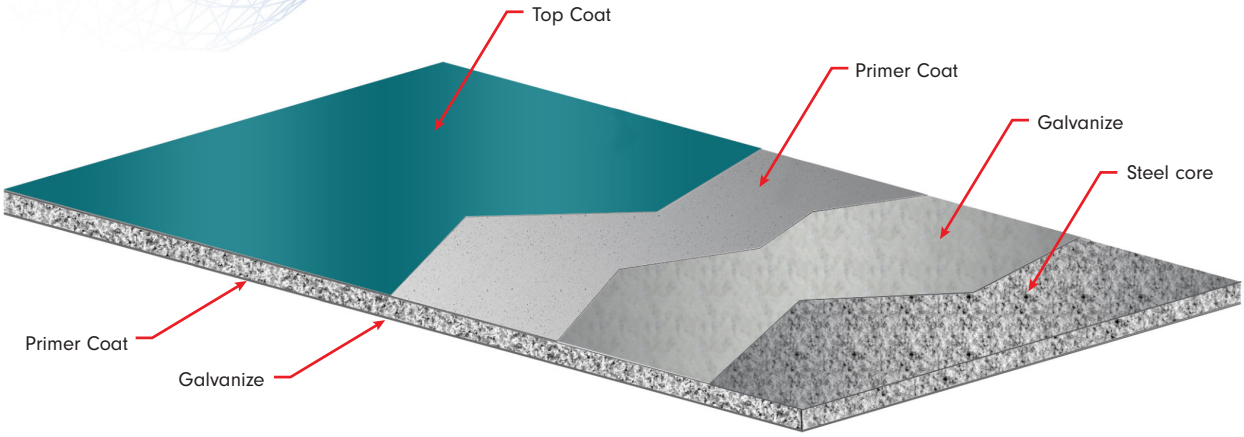
h: 50-60-70-80-100-120-130-150 mm

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

Rockwool

Rockwool Density	100 (±10) kg/m^3
Rockwool 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)**	**PUR (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

Rockwool Thermal Conductivity

Panel Thickness	U Thermal Conductivity (W/m^{2}K)	R Thermal Conductivity (m^{2}K/W)	R Thermal Conductivity (ft2 °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

Mechanical Properties

Steel Faces Yield Strength	min. 220 N/mm²
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)

Change of Sound Transmission Loss by Frequency (dB)

Rockwool Thickness	Frequency															
	50	63	80	100	125	160	200	250	500	630	1000	1600	2000	2500	4000	5000
50 mm	29,5	21,9	20,2	19,9	26,4	29,5	27,6	26,5	28,8	31,7	36,8	31,9	33,8	33,8	49,7	52,9

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)

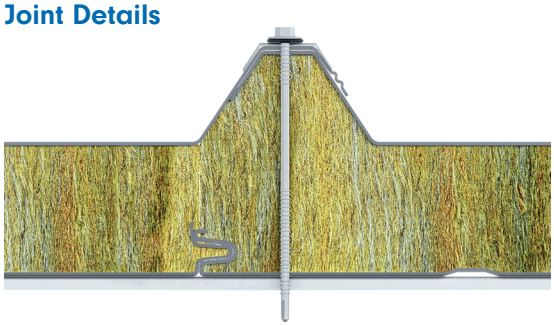
Standard Package

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

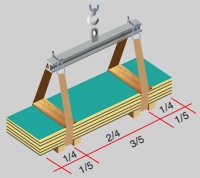
Standard Color Options

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

Joint Details

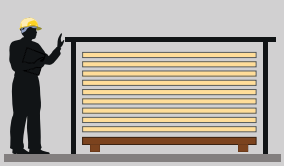


Transportation and Protection of Sandwich panel

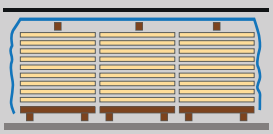


During hoisting take precautionfor the sling.

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 strored on site for long periods should be stacked in covered areas. Wherever possible, always place stackes 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.