



AssanPanel

Mineral Wool Sandwich Panels

ABOUT ASSAN PANEL

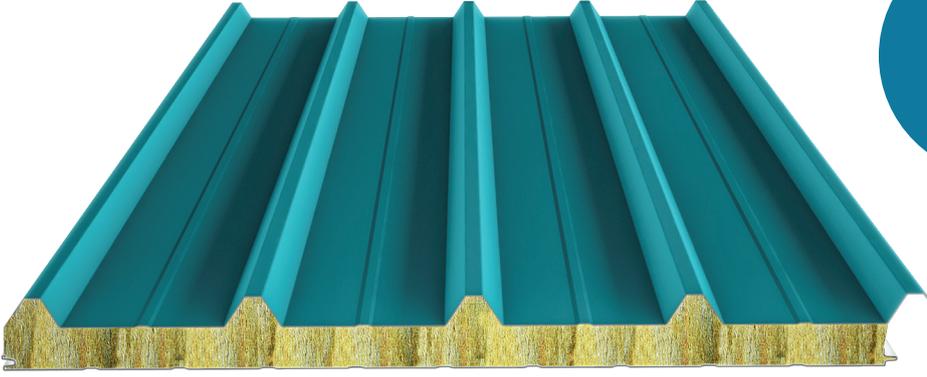
Assan Panel, a leading organization in the sandwich panel industry, began manufacturing operations in 1990 with its first manufacturing plant in Tuzla, Istanbul. Its manufacturing capacity was 4 million m²/year. Having continued to make investments to increase its production capacity over the years, Assan Panel invested in Iskenderun plant in 2004 with a manufacturing capacity of 3 million m²/year, Balıkesir plant in 2009 with a manufacturing capacity of 3 million m²/year, and Jordan plant in 2012 with a manufacturing capacity of 4.5 million m²/year, respectively. Having successfully completed the investment for the second production line in Tuzla, Istanbul plant in 2015 with a capacity of 3.5 million m²/year, it reached a total production capacity of 18 million m²/year. In 2021, Assan Panel invested in Turkic Republics for the first time and Azerbaijan plant began its manufacturing operations with the partnership of STP (Sumgayıt Texnologiyalar Park).

Assan Panel, a key pioneer in the industry, contributes to the construction of sustainable and environmentally friendly buildings with its sandwich panel products with PUR, PIR and mineral wool filling in addition to panels with polyurethane filling for cold room, roof, and exterior wall applications in compliance with fire safety regulations, panels ready for mounting of solar systems, project-specific custom accessories, polycarbonate skylights, fittings consisting of a wide range of screws as well as construction chemicals consisting of sealing and filling products.

Assan Panel provides high-quality application services with a wide range of high-quality, safe, innovative, fire-resistant products as well as domestic and international business partners.

As a groundbreaking pioneer in the industry, Assan Panel is a leader manufacturer in Turkey with FM Approvals certificate awarded in 2015 by FM Approvals without any height limit in buildings as well as being the holder of many other international certificates. Playing an active role in the global market by exporting to 85 countries around the world under its brands such as AssanPU, Assan Demir, AssanWool, and AssanBoard; Assan Panel is an overall solution partner for industrial buildings.





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ASSAN PANEL MINERAL WOOL INSULATED PANELS ACHIEVE A SIGNIFICANT BREAKTHROUGH IN FIRE RESISTANCE

Assan Panel 100 mm mineral wool insulated roof panels achieved the **REI 180** result by preserving their load carrying capacity, integrity and insulation functions for **3 hours and 49 minutes** in the fire resistance tests that carried out in Efectis Era facilities.



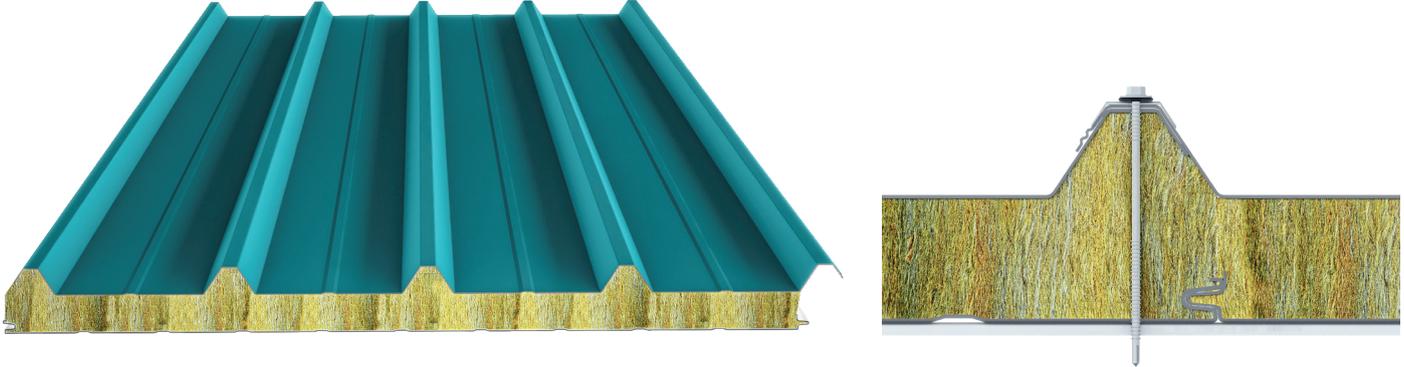
MINERAL WOOL SANDWICH PANELS

Sandwich panels are composite materials produced of two dyed Galvanized or Aluminum corrugated plates filled (with PIR, PUR, Mineral Wool) for thermal insulation. Used as coating materials in the roof, wall and internal partition or cold rooms of the buildings, sandwich panels provide a quite high level of thermal, water, sound insulation; prevent moisture condensation. In addition, they are distinguished with their bearing capacity as well. Bearing capacity of the sandwich panel depends on the density, thickness of its filling material and the form of its metal surfaces. Sandwich panel is an economical solution when assessed within the context of cost-benefit analysis. Thickness of the metals (DGS, Aluminum) and filling materials is determined in accordance with the area of usage and the amount of load they will bear. The climate conditions of the region of usage should be taken into account while determining the thickness of the filling material. Sandwich panels set the outer shell of the buildings in an aesthetic and affordable way by providing thermal, water and sound insulation without the need for any coating such as plaster or dye. They are procured with the best prices and used in the buildings whose load-bearing system is of steel and prefabricated concrete, such as industrial buildings, military buildings, social buildings, agricultural buildings, sports facilities, construction sites, silos, hypermarkets, shopping malls, cold storage depots and marketplaces. The products to meet the requirements of any kind of architectural project are produced with aluminum or dyed galvanized sheet metals, in requested amounts and dimensions at Assan Panel.



N5T ROOF PANEL

While it is used safely in the buildings where there is high risk of fire and which requires maximum fire endurance, it also enables wide gaps to be passed safely with its five indented form. Roofs with a 10% gradient can be covered. Thanks to its lateral connected panel connection, it enables fast assembly. With its stonewool material, it provides high acoustic performance.



Production Plant: Balıkesir
Favourable Width: 1000 mm
Minimum Length: 3 meters
Maximum Length: Depends on Transport Conditions
Mineral Wool Density: 100 (±10) kg/m³
Mineral 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

Heat Transmission Values of Mineral Wool

Mineral Wool Thickness	U Heat Transmission Value (W/m ² K)
50 mm	0.585
60 mm	0.497

Fire Performance Values		
Mineral Wool-Filled Sandwich Panels	A2.s1.d0	EN 13501-1

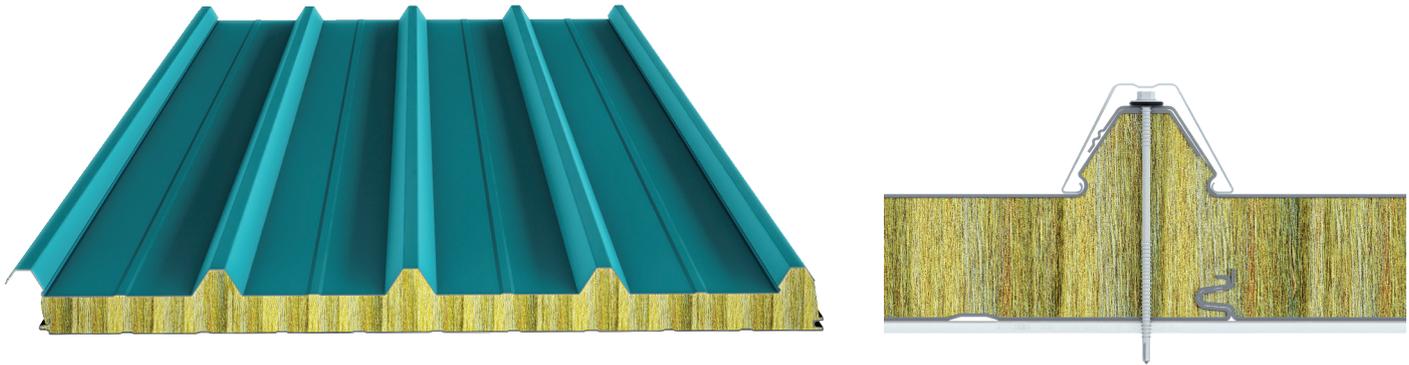
Thermal Conductivity Coefficient (λ)	
Thermal Conductivity Coefficient	0.033 W/m.K

Load Span Table

BGS / PPGS	BGS / PPGS	Mineral Wool Thickness (mm)	Multi Span								
			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

R5T CAPPED ROOF PANEL

This product enables wide gaps to be passed safely with its five indented form used safely in the structures with a high fire risk and in the buildings requiring maximum fire resistance. The greatest advantage of the R5 capped panel is that the panel link elements are protected from external factors thanks to the 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. The panels can be assembled with side overlaps without using the cap profiles or the caps can be attached later according to preference. Also the ability to make the cap profiles in different colors by preference provides an advantage for appearance. By using the R5 panels, roofs with a 7% gradient can be built, while the ability to cover the connecting components makes them usable for façade paneling. The mineral wool filler provides high acoustic performance.



Production Plant: Balıkesir
Favourable Width: 1000 mm
Minimum Length: 3 meters
Maximum Length: Depends on Transport Conditions
Mineral Wool Density: 100 (±10) kg/m³
Mineral 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

Heat Transmission Values of Mineral Wool

Mineral Wool Thickness	U Heat Transmission Value (W/m ² K)
50 mm	0,585
60 mm	0,497

Fire Performance Values		
Mineral Wool-Filled Sandwich Panels	A2.s1.d0	EN 13501-1

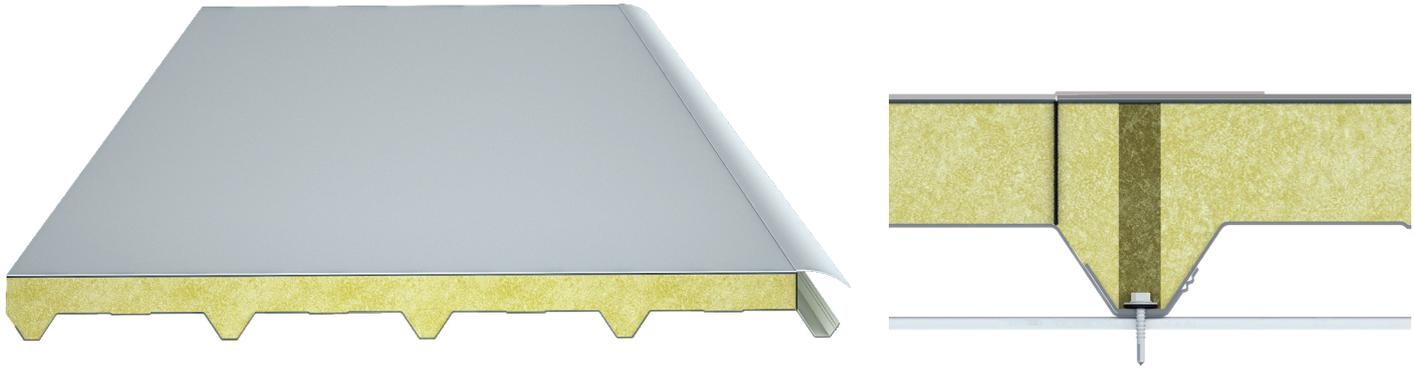
Thermal Conductivity Coefficient (λ)	
Thermal Conductivity Coefficient	0,033 W/m.K

Load Span Table

BGS / PPGS	BGS / PPGS	Mineral Wool Thickness	Multi Span								
			150 cm	175 cm	200 cm	225 cm	250 cm	275 cm	300 cm	325 cm	350 cm
External Sheet Thickness (mm)	Internal Sheet Thickness (mm)	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

N5TM MEMBRANE ROOF PANEL

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
Favourable Width: 1000 mm
Minimum Length: 3 meters
Maximum Length: Depends on Transport Conditions
Mineral Wool Density: 100 (±10) kg/m³
Mineral 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

Heat Transmission Values of Mineral Wool

Mineral Wool Thickness	U Heat Transmission Value (W/m ² K)
50 mm	0.585
60 mm	0.497

Fire Performance Values		
Mineral Wool-Filled Sandwich Panels	A2.s1.d0	EN 13501-1

Thermal Conductivity Coefficient (λ)	
Thermal Conductivity Coefficient	0,033 W/m.K



Load Span Table

BGS / PPGS	BGS / PPGS	Mineral Wool Thickness (mm)	Multi Span									
			150 cm	175 cm	200 cm	225 cm	250 cm	275 cm	300 cm	325 cm	350 cm	
External Sheet Thickness (mm)	Internal Sheet Thickness (mm)											
0.5	0.5	50	174	150	131	115	102	92	84	77	69	
0.5	0.5	60	210	183	158	140	124	112	102	93	86	
0.5	0.5	70	221	192	166	147	131	117	106	97	89	
0.5	0.5	80	283	246	213	188	167	151	138	126	116	
0.5	0.5	100	355	309	268	237	212	191	174	158	147	
0.5	0.5	120	391	339	295	260	232	211	191	175	161	
0.5	0.5	130	406	353	307	271	242	219	198	182	167	
0.5	0.5	150	431	375	327	289	250	233	214	194	176	

N5T ACOUSTIC

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 mineral wool inner core.



Production Plant: Balıkesir
Favourable Width: 1000 mm
Minimum Length: 3 meters
Maximum Length: Depends on Transport Conditions
Mineral Wool Density: 100 (± 10) kg/m³
Mineral 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

The Change of Acoustic Conductivity Loss Against Frequency (dB)

Mineral Wool Thickness (mm)	Frequency (Hz)															
	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



WALL SANDWICH PANELS

Assan Panel sandwich wall panels provide thermal, water and sound insulation, fire safety in accordance with the insulation structure at the buildings which meet the needs of the industrial sector, make life easier and comfortable. At the same time, the fact that they are economical, aesthetic and of good quality, helps performing its functions of safely protecting the building from the conditions of the outer environment. Sandwich wall panels are lately used in our country as coating material in walls, internal partitions or cold rooms of many buildings such as social and industrial buildings, factories and storage rooms, shopping materials, etc. Assan Panel maintains its values with diligence, including raw material quality, authorized dealers network and effective installation service, and quality control in each step starting from production of good quality and raw material entry to delivery, in accordance with TSE, EN and ISO standards, present in the manufacturing process of production of sandwich panels. Through this approach, it has become one of the pioneering institutions leading the industry.

WT WALL PANEL

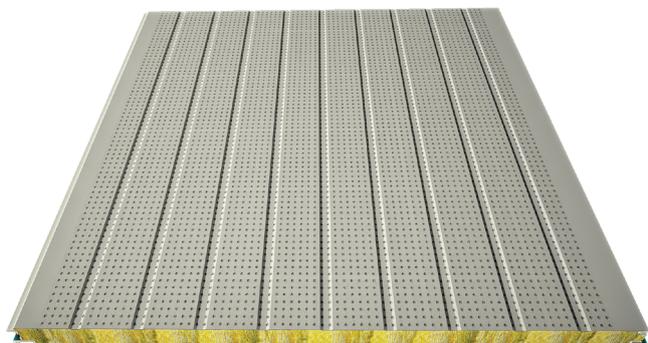
The wall panels are suitable for use on walls due to the system that conceals joint elements. The ability to use them both laterally and vertically provides assembly flexibility and good solutions for designers. Generally produced in micro pressed form to achieve an aesthetic appearance for walls. The mineral wool filler provides the best fire resistance performance.



Production Location: Balıkesir
Modular Width: 1000 mm
Minimum Length: 3 meters
Maximum Length: Depends on transport conditions.
Mineral Wool Density: 100 (±10) kg/m³
Mineral Wool Thickness: 50-60-80-100-120-130-150 mm
Thermal Conductivity Coefficient: 0.033 W/mK
Inflammability Class (EN 13501-1): A1
Water Absorption: By Volume 2%
Heat Resistance: 600 °C
Sound Insulation Rw [dB]: 30
Water Vapour Diffusion (EN 12086): 1

WT ACOUSTIC WALL PANEL

The perforated interior design provides high acoustic performance and class A sound absorption. The wall panels are suitable for use on walls due to the system that conceals joint elements. The ability to use them both laterally and vertically provides assembly flexibility and good solutions for designers. Generally produced in micro pressed form to achieve an aesthetic appearance for walls.



Production Location: Balıkesir
Modular Width: 1000 mm
Minimum Length: 3 meters
Maximum Length: Depends on transport conditions.
Mineral Wool Density: 100 (±10) kg/m³
Mineral Wool Thickness: 50-60-80-100-120-130-150 mm
Thermal Conductivity Coefficient: 0.033 W/mK
Inflammability Class (EN 13501-1): A1
Water Absorption: By Volume 2%
Heat Resistance: 600 °C
Sound Insulation Rw [dB]: 30
Water Vapour Diffusion (EN 12086): 1

The Change of Acoustic Conductivity Loss Against Frequency (dB)

Mineral Wool Thickness (mm)	Frequency (Hz)															
	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

REFERENCES





CERTIFICATES



TS EN 14509: 2014



TS EN 508-1:2014



TS 7677.2014





AssanPanel
BUILD RIGHT

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