

Hybrid Panel



Product Information

Assan Hybrid Panel is a high-performance roof panel product produced for heat and water insulation and high fire safety, its upper surface is covered with PVC or TPO membrane, and its core filling consists of mineral wool and PIR filling. It can be used as a roof covering with a minimum slope of 1.5%. Thanks to its rib, it is preferred in heavy loads. There is no need to coat with waterproofing material after installation, saving time and labour.

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.

Assan Panel reserves the right to change the features of its products. The property rights of third parties must be respected. Acceptance of all orders is based on our current terms of sale and shipping. Users should always consider the latest edition of the Local Product Information Sheet for the relevant product, which can be obtained by contacting Assan Panel.



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Performance Advantages

• It is a product produced for heat and water insulation as well as fire safety.

•There is no need to coat with waterproofing material after installation at the construction site, saving time and labour.

• The panels are connected to the carrier system with self-tapping screws. Afterwards, the ear on top of the other panel is glued using the lamination method.

- It is produced with a PVC or TPO membrane-coated upper surface.
- Thanks to its rib, it is preferred in heavy loads.
- Colour selection can be made from the RAL catalogue.
- There are surface paint (Polyester, PvdF, Plastisol, PVC) options suitable for the place of use.
- It can be used as a roof covering with a minimum slope of 1.5%.

Measurements



h: 70-80-100-120 mm

Favorable Width	1000 mm
Minimum Length	3 meters
Maksimum Length	Depends on the transport conditions.

Mineral Wool



Mineral Wool Density	100 (±10) kg/m ³		
Mineral Wool Thermal Conductivity	0,043 W/mK		
Mineral Wool Reaction to Fire	A1		
Mineral Wool Water Absorption	By Volume 2%		
Heat Resistance	600 °C		
Sound Insulation Rw [dB] ≥	30		
Vapour Diffusion Resistance	1		



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Prepainted Galvanized Steel Structure

Metal Type	Prepainted Galvanized Steel		
Internal Facing Thickness	0,50-0,80 mm		
Thickness Tolerance (EN 10143)	Nominal		
Steel Quality (EN 10327)	DX51 D+Z Prepainted Galvanized Steel (last coat polyester paint on primer)		
Paint Type	Polyester, PvdF, Plastisol, PVC		

Load Bearing Table

PPGS		Double Span				
Internal Sheet Thickness (mm)	Core Insulation Thickness (mm)	150 (cm)	200 (cm)	250 (cm)	300 (cm)	350 (cm)
0,5	70	621	347	224	156	114
0,5	80	690	396	261	186	139
0,5	100	813	485	330	241	183

• Load: kg/m² • Deflection: L/200 • PPGS: Prepainted galvanized sheet

Thermal Conductivity Values

Panel Thickness	Panel Thickness U Thermal Conductivity (W/m²K)		nel Thickness U Thermal Conductivity R Thermal Conductivity (W/m²K) (m²K/W)		R Thermal Conductivity (ft² ºF h/Btu)	
70 mm	0,483	2,072	11,764			
80 mm	0,434	2,304	13,085			
100 mm	0,361	2,770	15,726			
120 mm	0,309	3,235	18,366			

PVC Membrane Surface

Thickness	1,20 mm
Unit Weight on Field	1,55 kg/m2 ±5%
Tensile Strength	≥500 N/cm
Puncture Strength	≥450
Alongation at Break	80%
Tensile at 80 °C after 6 hours	≤ -0 ,1%
Bending in Cold	≤-20 °C
Accelerated Beam Aging (18,000 MJ/m²)	No cracks
Behavior under Hydrostatic Pressure, 24 hours at 2 bar	Impermeable
Accelerated Beam Aging 56 days at 80 °C	≤-2,5%
Standard View	Light grey, mat



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Tolerance Values

Panel Length	Panel Thickness	Panel Cover Width	Rectangularity	
If L < = 3,000 mm ± 5 mm If L > 3,000 mm ± 10 mm	D ≤ 100 mm ± 2 mm	± 2 mm for all profiles	0.6% of s ≤ nominal cover thickness (Width x 0.006)	

Standard Package

Thickness (mm)	40	50	60	70	80	100
Quantity	20	16	14	12	10	8

Standard Colour Options



Joint Details



Transportation and Protection of Sandwich Panel



During hoisting, take precaution for the sling.



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



Panels to be strored 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 cover, leaving space for ventilation. Place stacks on a simple wedge.



Do not walk on panels.

