

# WDW Wall Panel



#### **Product Description**

It is suitable for use on aesthetic facades with its system that hides the fastener. It can be applied both horizontally and vertically. In this way, it offers alternative solutions to designers with the assembly flexibility it provides. It has high strength with its deep micro indented form. It allows to pass wide openings on the facades.

#### **Production Location**

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.

W 1701

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.



# **Performance Advantages**

Has the best thermal insulation values.

Fast and problem-free assembly saves time and labor.

The polyurethane structure does not retain water and allow bacteria and pests to develop.

The use of n-Penthane gas in inflating polyurethane prevent environmental damage.

The colorful surface eliminates the need for additional coatings like plaster and paint.

Color options available in the RAL catalogue.

Surface paint options available according to application (Polyester, PvdF, Plastisol, PVC).

Applicable both laterally and vertically.

The fastening elements being concealed provides visual advantage on walls.

#### **Measurements**

	h	i
1,000 mm		
T T h: 50-60-80 mm		

Modular Width	1,000 mm		
Minimum Length	3 meter		
Maximum Length	It depends on the shipping conditions.		

# Polyurethane (PUR) - Polyisocyanurate (PIR)

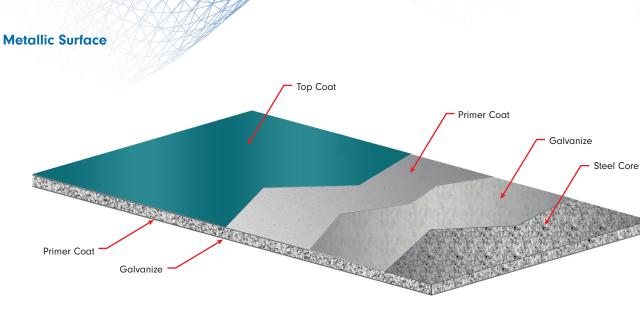


Polyurethane/Polyisocyanurate Density (EN 1602)	PUR: 40 (±2) kg/m <sup>3</sup> // PIR: 41 (±2) kg/m <sup>3</sup>		
Polyurethane (PUR)/Polyisocyanurate (PIR) Thickness	50-60-80 mm		
Thermal Conductivity (EN 13165)	0.022-0.024 W/mK		
Dimensional Stability (EN 13165)	Level DS (TH) 11		
Reaction to Fire (13501)	PUR: B-s2,d0 // PIR: B-s1,d0		
Water Absorption (EN ISO 354)	By Volume %2 (168 hours)		
Closed Cell Percentage (EN 14509)	%95		
Vapour Diffusion Resistance (EN 12086)	30-100		
Heat Resistance	-200/+110 °C		



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# Prepainted Galvanized Steel Surface

Metal Type	Prepainted Galvanized Steel		
External Facing Thickness	0.50 mm		
Internal Facing Thickness	0.40 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 / Span Table

PPGS	PPGS	Double Span				
External Sheet Thickness (mm)	Internal Sheet Thickness (mm)	PUR (mm)	100 cm	150 cm	200 cm	250 cm
0.5	0.4	50	340	205	138	99
0.5	0.4	60	532	259	177	128
0.5	0.4	80	596	370	257	188

+ Load values kg/m  $^{\scriptscriptstyle 3}$  + Limit value L/200 + BGS: Painted Galvanized Steel

# **Coefficient of Thermal Conductivity**

Polyurethane Thermal Conductivity Values				
Panel Thickness U Thermal Conductivity (W/m²K)		R Thermal Conductivity (m²K/W)	R Thermal Conductivity (ft² °F h/Btu)	
50 mm	0.406	2.465	14.000	
60 mm	0.342	2.921	16.584	
80 mm	0.261	3.831	21.756	

According to TSE EN 14509



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# **Mechanical Properties**

Steel Faces Yield Strength	min. 220 N/mm <sup>2</sup>			
Tensile Strength of Panel	min. 0.018 MPa			
Shear Strength of Core Material	min. 0.11 MPa			
Shear Modulus of Core Material	min. 2.0 MPa			
Compressive Strength of Core Material	min. 0.095 MPa			
Shear Strength after Long-Term Loading	t: 1,000 hours min. 0.04 MPa t: 2,000 hours min. 0.03 MPa t: 100,000 hours min. 0.01 MPa			
Bending Moment Capacity in Span	min. 2.3 kN/m (Straight) min. 2.0 kN/m (Reverse)			
Wrinkling Stress in Span	min. 100 MPa (Reverse) min. 115 MPa (Straight)			

According to TSE EN 14509

### Tolerances

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

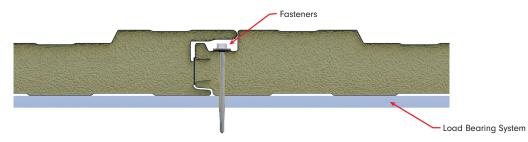
# **Standard Package Quantities**

Thickness (mm)	50	60	80
Quantity	20	18	14

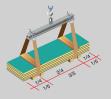
# **Standard Color Options**



# **Joint Details**



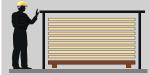
# **Transportation and Protection of Sandwich Panel**



During hoisting take precautions for the sling.



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



Panels to be strored on site for long periods should be stacked in covered areas. When possible, always place stackes preferably on wooden wedges, against ground water.



For shorter periods, stacks should be arranged on sloppy areas with a simple scatfolding and cover, leaving space for ventilation. Place stacks on a simple wedge.



Do not walk on panels.

