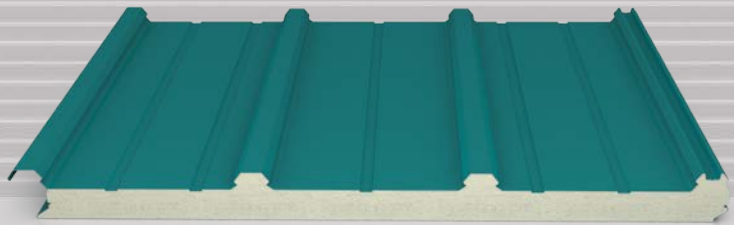


# ROOF SANDWICH PANELS



Panelsan is the pioneer to produce hidden screw roof panels in Turkey. Hidden screw roof panels will be the ultimate solutions of the problems caused by the regular connection detail and will provide the perfect roof to apply on the sun panels. If PIR insulation is preferred, provides perfect heat resistance, discontinuous fire, self-extinguish and minimum smoke.

<b>Insulation Thicknesses</b>	50-60-80-100 mm
<b>Insulation Density</b>	PUR 40 ( $\pm 2$ ) kg/m <sup>3</sup> / PIR 42 ( $\pm 2$ ) kg/m <sup>3</sup>
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,022$ W/mK
<b>Fire Resistance Class/PUR</b>	B-s2, d0 EN 13501-1 / C-s2, d0 EN 13501-1
<b>Fire Resistance Class/PIR</b>	B-s1, d0 EN 13501-1



Panelsan is the pioneer to produce hidden screw roof panels in Turkey. Hidden screw roof panels will be the ultimate solutions of the problems caused by the regular connection detail and will provide the perfect roof to apply on the sun panels. If PIR insulation is preferred, provides perfect heat resistance, discontinuous fire, self-extinguish and minimum smoke.

<b>Insulation Thicknesses</b>	40-50-60-80-100-120 mm
<b>Insulation Density</b>	PUR 40 ( $\pm 2$ ) kg/m <sup>3</sup> / PIR 42 ( $\pm 2$ ) kg/m <sup>3</sup>
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,022$ W/mK
<b>Fire Resistance Class/PUR</b>	B-s2, d0 EN 13501-1 / C-s2, d0 EN 13501-1
<b>Fire Resistance Class/PIR</b>	B-s1, d0 EN 13501-1



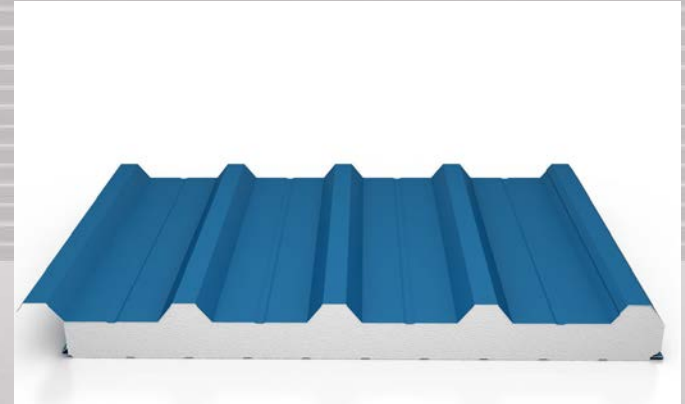
Rockwool and glasswool insulated roof panels are particularly preferred for the buildings requiring high fire safety because of its resistance against flames. Our roof panels which allow reversible furnishing on the roofs provide heat, sound, fire and water insulation upon combination with different water insulation materials on the roofs with lesser slopes. Our glasswool insulated panels are also the insulated panels intended for aluminum and BGS metal.

<b>Insulation Thicknesses</b>	50-60-75-80-100- 120-125-150 mm
<b>Insulation Density</b>	90-100-110- 120 kg/m
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Fire Resistance Class</b>	A2 - s1, d0 TSEN 13501-1
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,035 \text{ W/mK}$

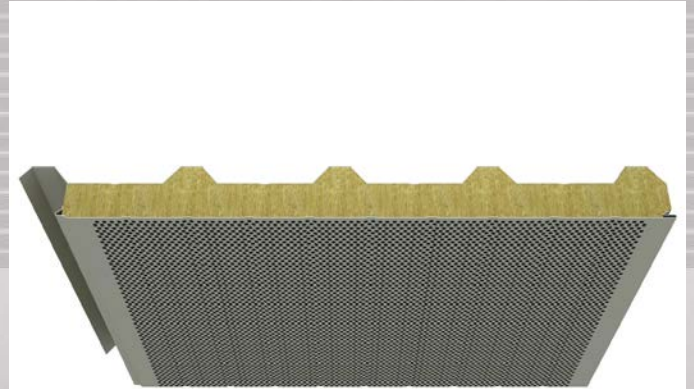


EPS insulated roof panels are, with high loading capacity, preferred because they are light and environment friendly, they don't generate bacteria and they are affordable.

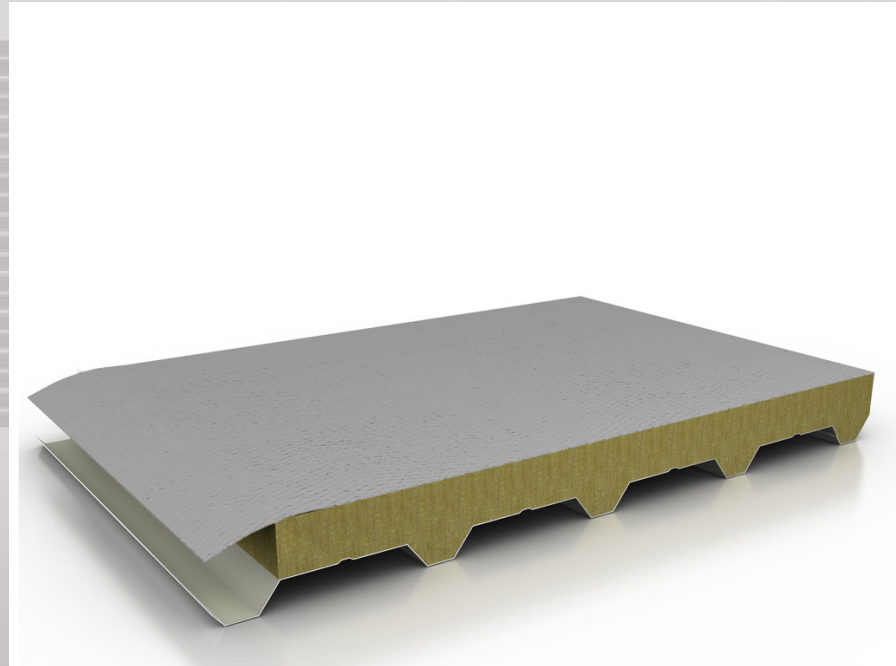
<b>Insulation Thicknesses</b>	40-50-60-75-80-100- 120-125 mm
<b>Insulation Density</b>	16-18 kg/m <sup>3</sup> (Özel Üretim 16-30 kg/m <sup>3</sup> )
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Interior Sheet/PPGI/Goffered Aluminum</b>	0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI/Goffered Aluminum</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,038 \text{ W/mK}$
<b>Fire Resistance Class</b>	E , TSEN 13501-1



Acoustic panel converts the detrimental sound to a positively tolerable level for the environment. Besides its standard characteristics, the excellent sound absorption figure of a single side perforated panel is  $D_{Ia} = 8\text{dB}$  and sound insulation figure is 34 dB. Perforated roof & wall panel solutions are advised where sound insulation is essential for the building. Regarding the customer's need both faces can be perforated. The thickness of the perforated face is technically advised to be minimum 0,60 mm.



The bottom sheet of these PUR-PIR insulated sandwich panels are TPO or PVC. Provide water and heat insulation, where the slope is low.



The PUR-PIR insulated sandwich panels to provide water insulation, where the slope is low. Enable TPO-PVC membranes to be used at the sites.



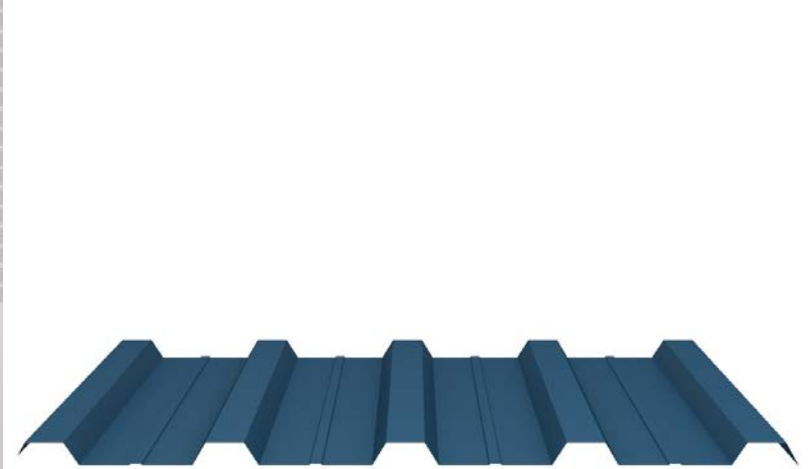


Used in poultry, farms, animal barns and etc. or used in asidic environment for their resistancy to chemicals and chemical waste. Used at the inner face of the panel. Outer face is either galvanized sheet or aliminium. The insulation material is EPS, PUR or PIR. The thickness of the pet is 0,90 mm and the thickness of the FRP is 0,80 mm.

- Resistant to acids, saline, alcohol, hydrocarbon and solvents.
- Resistant to environmental effects such as acid rains, smoke, exhaust, sea water.
- Easily shaped.
- Thermoform is just enough to shape the Pet.
- Flammability and toxic gas release is low.
- Does not contain any toxic gas.
- Non-oxidizing
- Light to lift and install.
- Considerably sound-proof, enables heat insulation.
- Easy to clean and perfectly hygienic.
- Several options of color and pattern.
- Resistant to impact, does not break.
- Recyclable and environment friendly.



Providing different types of solutions, single sheet trapezoidal roof panels are produced of aluminium and prepainted galvanised sheet at different thicknesses and at 3 different forms which are 38/151, 27/200, 34/250. By Coil Coating system the color of the metal can be changed to any other required color regarding the RAL Catalogue. The product is perfectly applied on hangars, warehouses, industrial buildings, conveyors and etc. with or without insulation material (as single sheet). Distinctive radius designs respond to different and aesthetic requirements.

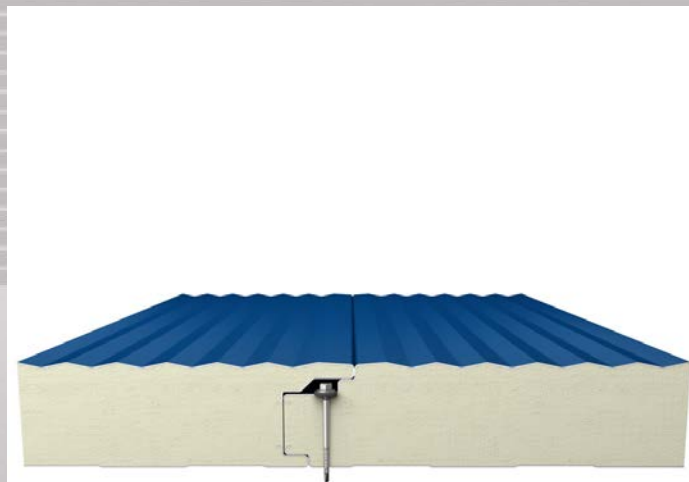


# WALL SANDWICH PANELS



The installation screws of the hidden screw wall are not visible from outside. Installed to be vertical or horizontal. Over-lap detail provides perfect insulation. Microwave, mesa surfaces will be the vision of your buildings. Sinus and semi sinus surfaces will provide you with new design options. PUR insulation provides heat, sound and water insulation. PIR also provides fire resistance.

<b>Insulation Thicknesses</b>	40-50-60-80-100 mm
<b>Insulation Density</b>	PUR 40 ( $\pm 2$ ) kg/m <sup>3</sup> / PIR 42 ( $\pm 2$ ) kg/m <sup>3</sup>
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,35-0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,022$ W/mK
<b>Fire Resistance Class/PUR</b>	B-s2, d0 EN 13501-1/ C-s2, d0 EN 13501-1
<b>Fire Resistance Class/PIR</b>	B-s1, d0 EN 13501-1



Used specifically for container production, prefabricated buildings, to form partitions within the building. Installed to be vertical or horizontal with flat, micro wave and mesa surface options. Produced at 850-1.150 mm width.

<b>Insulation Thicknesses</b>	40-50-60-80-100 mm
<b>Insulation Density</b>	PUR 40 ( $\pm 2$ ) kg/m <sup>3</sup> / PIR 42 ( $\pm 2$ ) kg/m <sup>3</sup>
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,35-0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,022$ W/mK
<b>Fire Resistance Class/PUR</b>	B-s2, d0 EN 13501-1 / C-s2, d0 EN 13501-1
<b>Fire Resistance Class/PIR</b>	B-s1, d0 EN 13501-1



Hidden screw wall panels are manufactured in rockwool and glasswool insulated way. Screws on our panels cannot be seen from the outside due to its form. It provides high heat-fire, water and sound insulation with a connected detail allowing vertical and horizontal installation. It is ready to become the new face of your buildings with its micro twist and mesa surface shapes.

<b>Insulation Thicknesses</b>	50-60-80-100-120-125- 150 mm
<b>Insulation Density</b>	90-100-110-120 kg/m <sup>3</sup>
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,35-0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,035 \text{ W/mK}$
<b>Fire Resistance Class</b>	A2 - s1, d0



# OUTER SCREW WALL PANEL/ROCKWOOL-GLASSWOOL INSULATED

Outer screw wall panels are especially preferred for container manufacturing, prefabricated buildings, internal partitions and fire corridors. It offers affordable solutions with a detail which is suitable for vertical and horizontal installation for the projects; it protects your buildings with heat, water, sound and high fire resistance.

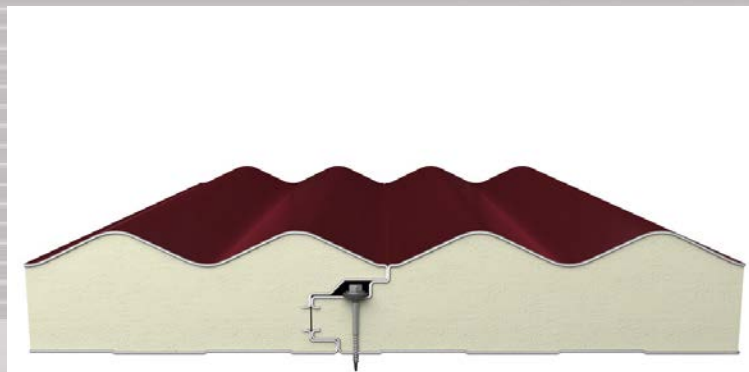
<b>Insulation Thicknesses</b>	50-60-75-80-100-120- 125-150 mm
<b>Insulation Density</b>	90-100-110-120 kg/m <sup>3</sup>
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,035 \text{ W/mK}$
<b>Fire Resistance Class</b>	A2 - s1, d0





The sinus as a hidden screw type of panel, provides new technical and easthetic solutions for your projects. Also installed as complementary with semi sinus panel and hidden screw wall panel. PUR insulated sinus wall panel provides heat, sound and water insulation and also provides fire resistance with PIR insulation.

<b>Insulation Thicknesses</b>	50-60-80-100 mm
<b>Insulation Density</b>	PUR 40 ( $\pm 2$ ) kg/m <sup>3</sup> / PIR 42 ( $\pm 2$ ) kg/m <sup>3</sup>
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,022$ W/mK
<b>Fire Resistance Class/PUR</b>	B-s2, d0 EN 13501-1 / C-s2, d0 EN 13501-1
<b>Fire Resistance Class/PIR</b>	B-s1, d0 EN 13501-1





The semi sinus as a hidden screw type of panel, provides new technical and easthetic solutions for your projects. The semi sinus panel with both surfaces, flat and micro wave, is also installed as complementary with sinus panel, hidden screw wall panel. PUR insulated semi sinus wall panel provides heat, sound and water insulation and also provides fire resistance with PIR insulation..

<b>Insulation Thicknesses</b>	40-50-60-80-100 mm
<b>Insulation Density</b>	PUR 40 ( $\pm 2$ ) kg/m <sup>3</sup> / PIR 42 ( $\pm 2$ ) kg/m <sup>3</sup>
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,35-0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,022$ W/mK
<b>Fire Resistance Class/PUR</b>	B-s2, d0 EN 13501-1 / C-s2, d0 EN 13501-1
<b>Fire Resistance Class/PIR</b>	B-s1, d0 EN 13501-



Matrix wall panel series, which is perfectly functional for the cladding of the managerial buildings of the factories, consist of 3 optional forms with 2 optional surfaces (microwave, flat surfaces). PUR insulated Matrix wall panel series provides heat, sound and water insulation and also provides fire resistance with PIR insulation

<b>Insulation Thicknesses</b>	40-50-60-80-100 mm
<b>Insulation Density</b>	PUR 40 ( $\pm 2$ ) kg/m <sup>3</sup> / PIR 42 ( $\pm 2$ ) kg/m <sup>3</sup>
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,35-0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,022$ W/mK
<b>Fire Resistance Class/PUR</b>	B-s2, d0 EN 13501-1 / C-s2, d0 EN 13501-1
<b>Fire Resistance Class/PIR</b>	B-s1, d0 EN 13501-1



# panelsan HIDDEN SCREW WALL PANEL/EPS (EXPANDED POLYSTYRENE) INSULATED

Screws on hidden screw wall panels cannot be seen from the outside due to its form. It provides high heat and water insulation with a connected detail allowing vertical and horizontal installation. It is ready to become the new face of your buildings with its micro twist and mesa surface shapes. EPS insulated panels are preferred because they are light and environment-friendly, they don't generate bacteria and they are affordable.

<b>Insulation Thicknesses</b>	50-60-75-80-100-120- 125-150 mm
<b>Insulation Density</b>	16-18 kg/m3 (Özel Üretim 16-30 kg/m3 )
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,038 \text{ W/mK}$
<b>Fire Resistance Class</b>	E



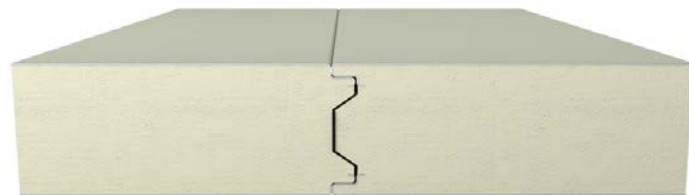
Outer screw wall panels are especially preferred for container manufacturing, prefabricated buildings and internal partitions.

<b>Insulation Thicknesses</b>	40-50-60-75-80-100-120-125-150 mm
<b>Insulation Density</b>	16-18 kg/m <sup>3</sup> (Özel Üretim 16-30 kg/m <sup>3</sup> )
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,038 \text{ W/mK}$
<b>Fire Resistance Class</b>	E

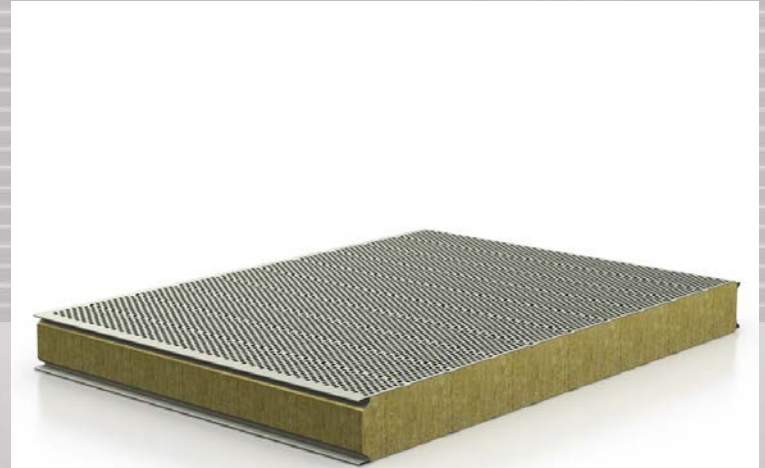


Our panel which is used in cooling, shocking and hygiene chambers and manufactured in the width of 850-1.150 mm is manufactured in different thickness and painted in line with the food regulation, thus hygiene is provided. Cold room stores provide impermeability thanks to special compound detail and shall be a solution partner for your problems.

<b>Insulation Thicknesses</b>	80-100-120-150-180- 200 mm
<b>Insulation Density</b>	PUR 40 ( $\pm 2$ ) kg/m <sup>3</sup> / PIR 42 ( $\pm 2$ ) kg/m
<b>Metal Thicknesses/Interior Sheet/PPGI</b>	0,40-0,50-0,60-0,70 mm
<b>Metal Thicknesses/Exterior Sheet/PPGI</b>	0,50-0,60-0,70 mm
<b>Thermal Conductivity Coefficient</b>	$\lambda = 0,022$ W/mK
<b>Fire Resistance Class/PUR</b>	B-s2, d0 EN 13501-1 / C-s2, d0 EN 13501-1



Acoustic panel converts the detrimental sound to a positively tolerable level for the environment. Besides its standard characteristics, the excellent sound absorption figure of a single side perforated panel is  $D_{1a} = 8\text{dB}$  and sound insulation figure is 34 dB. Perforated roof & wall panel solutions are advised where sound insulation is essential for the building. Regarding the customer's need both faces can be perforated. The thickness of the perforated face is technically advised to be minimum 0,60 mm.



“It is an insulation board that is being used in roof, wall and floor insulation. It is produced by covering the PUR (polyurethane) and PIR (polyisocyanurate) boards with surface covering materials.

**Advantages:**

- Fire resistance
- Moisture resistance
- High compression strength
- Economic
- Easy to install
- Provides high energy save
- Nature friendly”

