

PANELTECH[®]



PIR SOFT
INSULATION PANELS

ABOUT PRODUCT

Paneltech PIR SOFT insulation panels are a modern building material made of rigid polyurethane foam PIR in metallized elastic foil facings. They can be used as an insulation of both flat roofs, and shed roofs. The panels are also an excellent material for use as an insulation of ceilings, floors and three-layered walls.



APPLICATION:

- ① Three-layered walls
- ② Flat roofs
- ③ Shed roofs
- ④ Floors
- ⑤ Terraces

EDGE FINISH

PIR SOFT panels can be delivered in two milling variants:
- 2F (side edges milled)
- 4F (all edges milled).

In PIR SOFT 2F variant, where only side edges are milled, coverage width is 1185 mm, and coverage length is 2400 mm (coverage area of 2.84 m²).

Other lengths are also available on consultation with Paneltech Sales Department. And in PIR SOFT 4F variant, where all edges are milled, coverage width is 1185 mm, and coverage length is 2385 mm (coverage area of 2.83 m²). Milling depth in both variants is 15 ±2 mm.



PIR SOFT 2F
ONLY SIDE EDGES MILLED

PIR SOFT 4F
ALL EDGES MILLED



ADVANTAGES OF PIR SOFT INSULATION PANELS

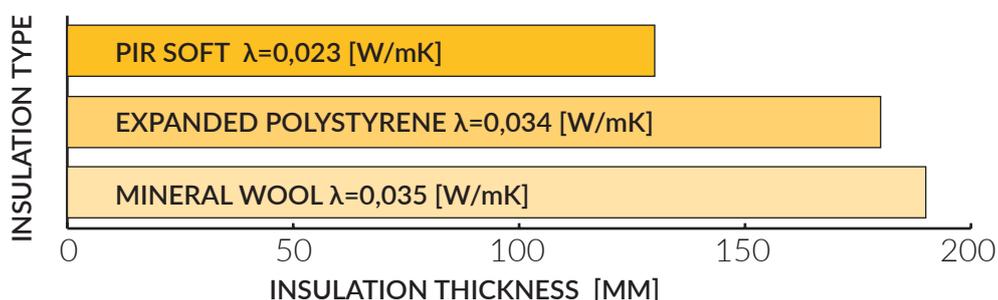
- Very low thermal conductivity value - $\lambda_D = 0,023$ W/mK, which makes it possible to use thinner insulation layer,
- Apparent density $32 \text{ kg/m}^3 \pm 5\%$ - the structure of material with such low density ensures higher ageing resistance of the foam to changeable weather conditions,
- European reaction to fire class "E", which proves its self-extinguishing properties,
- Compressive strength of min. 120 kPa, allowing for its use at a service load of $3,6 \text{ t/m}^2$,
- Easy and fast installation,
- Excellent dimensional stability in variable operating conditions, which prevents occurrence of thermal bridges on barriers,
- Resistance to fungi and mold thanks to a closed-cell material structure with gas-tight facings,
- No biologic enemies - rodents do not penetrate rigid foam PIR, which ensures a long-year durability of the material without having to replace it,
- Scope of application temperature from -50°C to 120°C .

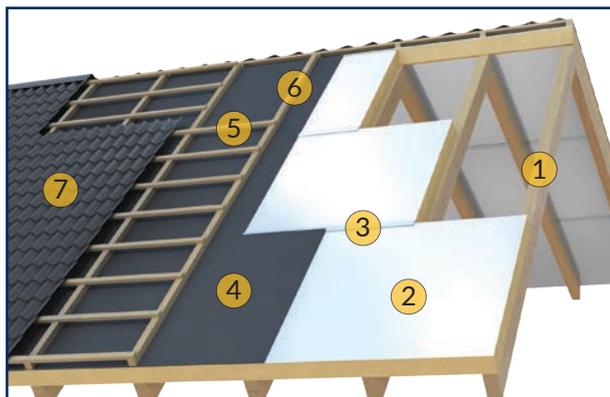
Parameter	Value			
Thickness [mm]	60	80	100	120
Type of milling	2F - side edges milled 4F - all edges milled			
Coverage width [mm]	1185			
Coverage length [mm]	2400 (PIR SOFT 2F) or 2385 (PIR SOFT 4F)			
Coverage area [m ²]	2.84 (PIR SOFT 2F) or 2.83 (PIR SOFT 4F)			
Thermal resistance R [m ² K/W]	2,60	3,45	4,35	5,20
Reaction to fire class	E			
Thermal conductivity [W/mK]	0,023			
Compressive strength (10% strain) [kPa]	120			
Apparent density [kg/m ³]	$32 \pm 5\%$			
Certification	Product meets requirements of EN 13165			
Core	Rigid polyurethane foam PIR with a density of $32 \text{ kg/m}^3 \pm 5\%$			
Elastic facings types	AL - paper covered with aluminium FL - composite foil			

ENERGY EFFICIENCY

At present, investors more and more often opt for energy-efficient construction. To make a newly built facility meet strict thermal requirements, products providing the lowest possible energy consumption are used for its construction. The key to achieve a high thermal comfort at low heating costs, and thus reduction of CO₂ emissions, is to use Paneltech PIR SOFT insulation panels.

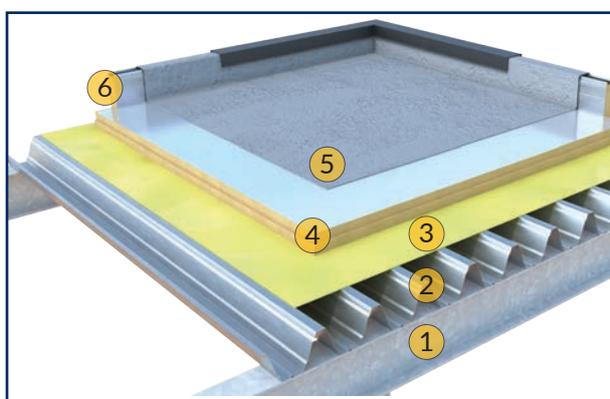
They help to build a facility which is provided with an excellent thermal insulation and protected against loss of heat. With use of PIR SOFT insulation panels it is possible to achieve the same insulating power with a lower thickness compared to mineral wool or expanded polystyrene foam, which proves that Paneltech PIR SOFT insulation panels are the most efficient out of all commercially available insulating materials.





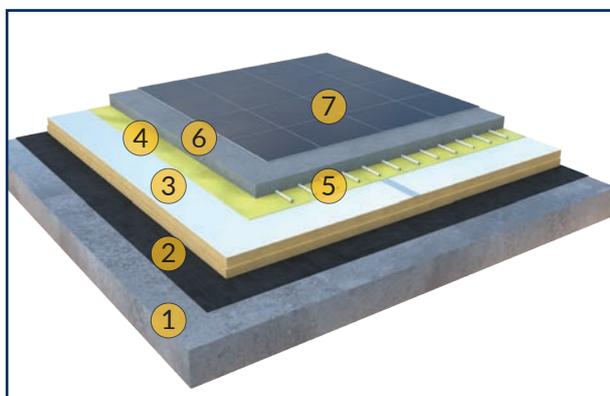
SHED ROOFS

1. Rafters
2. PIR SOFT insulation panel
3. Aluminium tape
4. Membrane
5. Battens
6. Counter-battens
7. Roofing



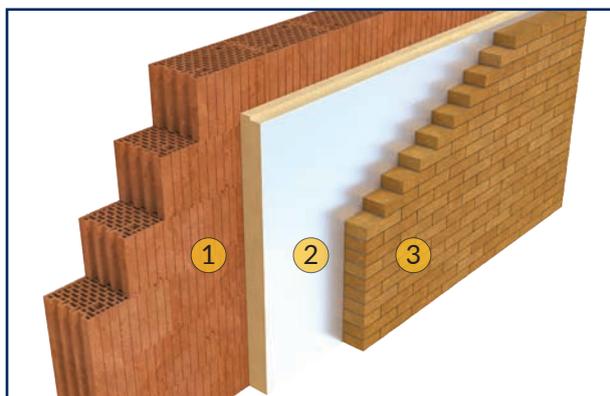
FLAT ROOFS

1. Structure
2. Load-bearing substrate
3. Vapour barrier
4. PIR SOFT insulation panel
5. Waterproofing
6. Wall panels



FLOORS & TERRACES

1. Reinforced concrete slab
2. Damp proofing
3. PIR SOFT insulation panel
4. Steam-tight foil
5. Underfloor heating system
6. Screed
7. Floor



THREE-LAYERED WALLS

1. Load-bearing wall
2. PIR SOFT insulation panel
3. Façade wall