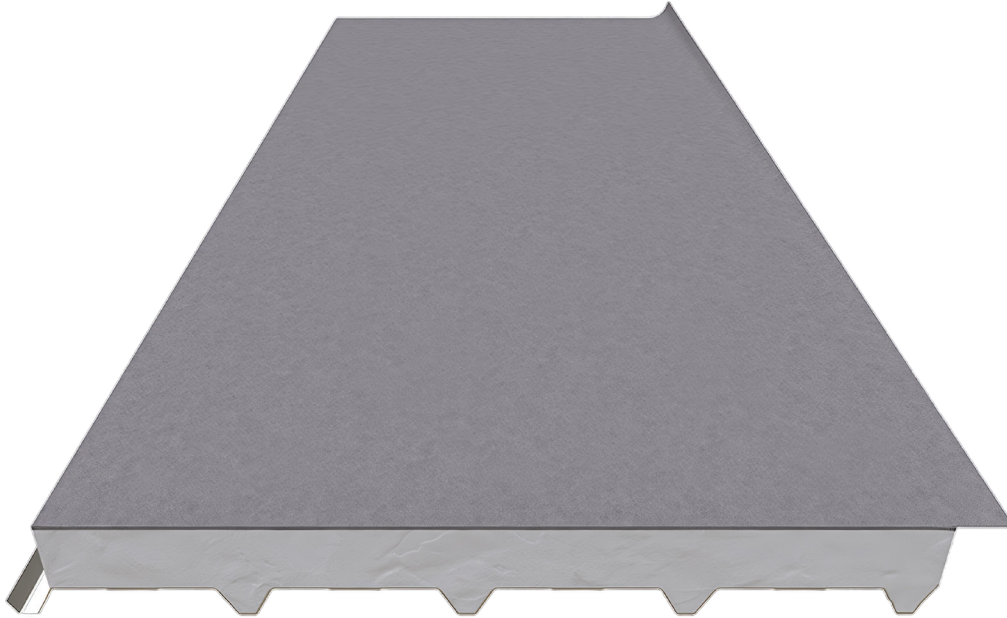


ThermaGard COV HydraLock

Self-supporting insulated roof panels with an external waterproof PVC membrane, an internal trapezoidal metal facing and a High Index polyisocyanurate (PIR) foam core, suitable for roofing applications on all types of buildings

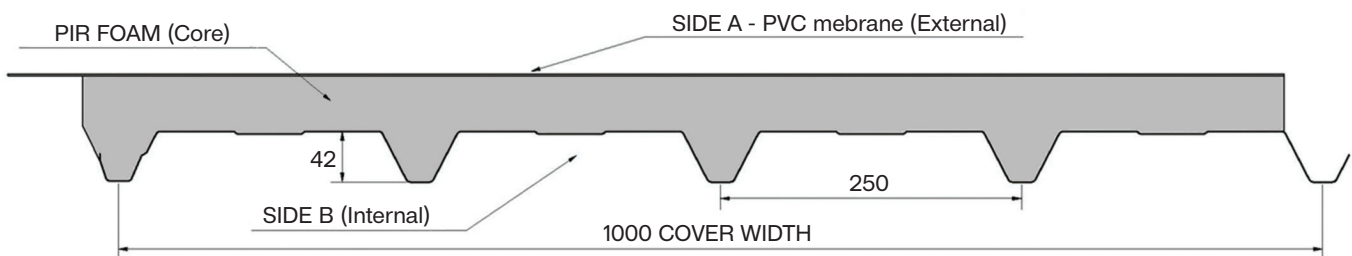


Available in

Effective cover width 1000mm | Nominal thickness from 50mm to 150mm

Bespoke lengths from 2 m to 14 m, depending on project requirements

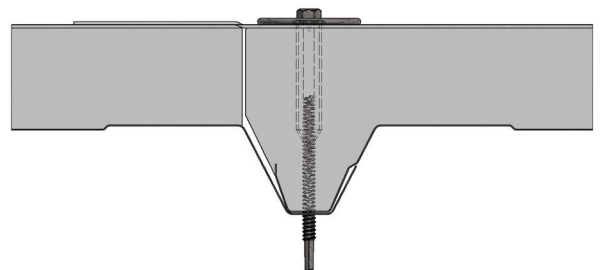
- Waterproof PVC membrane
- 5-rib trapezoidal profile with a profile height of 42 mm and a pitch of 250 mm



They are fixed to the supporting structure using the standard visible fixing method.

Designed for roofs with a minimum slope of 10%.

In this case, the panels must have a right-hand or left-hand side overlap, depending on the project specifications, with an overlap length ranging from 50 mm to 250 mm.

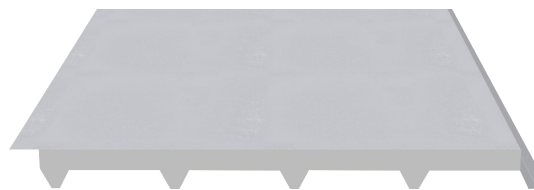


Internal face profile



5-rib trapezoidal profile with a profile height of 42 mm and a pitch of 250 mm

External face profile



Waterproof PVC membrane (Standard EN 13956 "Flexible sheets for waterproofing—Plastic and rubber sheets for roof waterproofing")

The PVC membrane excels in waterproofing properties and demonstrates excellent resistance to environmental factors and ultraviolet radiation. The membrane material is a high-content polymer, environmentally friendly, non-toxic, with a neutral pH. The panel is coated with a non-woven synthetic polyester layer to ensure cohesion with the polyurethane foam (PUR) insulating core. It is reinforced with a mesh to ensure dimensional stability. Due to its anti-puncture technology, it exhibits high resistance to impact, tearing, and puncturing. It has excellent performance in external fire exposure Broof(t1). Regarding reaction to fire, it is classified in category E, like all organic products. With a useful width of 1000 mm and a total width of 1080 mm, there is a side overlap of approximately 80 mm for on-site joint bonding. For bonding, it is recommended to use contact adhesives, hot-melt adhesives, or PU adhesives.

Technical Specifications

Dimensional Tolerances

Metal Sheet Thickness > 0,50mm

Panel thickness	$\pm 2 \text{ mm} / \pm 2 \%$	$D \leq 100 \text{ mm} / D > 100 \text{ mm}$
Depth of the profile (rib height)	$\pm 1 \text{ mm} / \pm 2,5 \text{ mm}$	$5 < h \leq 50 \text{ mm} / 50 < h \leq 100 \text{ mm}$
Panel length	$\pm 5 \text{ mm} / \pm 10 \text{ mm}$	$L \leq 3000 \text{ mm} / L > 3000 \text{ mm}$
Panel cover width	$\pm 2 \text{ mm}$	$W = 1000 \text{ mm}$
Deviation from squareness	$\leq 6 \text{ mm}$	$W = 1000 \text{ mm}$
Deviation from straightness	$\leq 1 \text{ mm/m}$	$\leq 5 \text{ mm}$
Pitch of profile	$\pm 2 \text{ mm} / \pm 3 \text{ mm}$	$h \leq 50 \text{ mm} / h > 50 \text{ mm}$
Ribs width	$\pm 1 \text{ mm}$	For b1 value
Valleys width	$\pm 2 \text{ mm}$	For b2 value

Panel nominal thickness	Panel weight	Thermal Transmittance	Fire resistance
[mm]	[kg/m ²]	U [W/m ² .K]	EN 13501-2
50	9,1	0,43	-
60	9,5	0,36	-
80	10,3	0,27	-
100	11,1	0,22	REI 30
120	11,9	0,18	-
150	13,1	0,15	-

Panel weight and thermal transmittance were calculated based on:

- Core density 40 kg/m³
- Core thermal conductivity 0.023 W/mK
- Waterproofing membrane thickness 1,20 mm
- Internal steel sheet thicknesses 0.50 mm
- Coating SP

(Standard EN 13501-2)

Product performance in fire

Reaction to Fire: The panels can be classified according to the EN 13501-1 standard in category B-s1-d0. They do not spread fire, do not ignite, have very limited smoke production, and do not produce flaming or non-flaming droplets.

Fire Resistance: The 100mm thick panel is classified as REI 30 according to EN 13501-2. It withstands exposure to fire for at least 30 minutes without losing its load-bearing capacity (R), integrity (E), and insulation characteristics (I).

External fire exposure: The 100 mm thick panel is classified as Broof(t1) according to EN 13501-5. This means that the maximum fire spread radius on “horizontal” roofs, external and internal, is less than 0.2 m.

Nominal membrane thickness 1.20mm

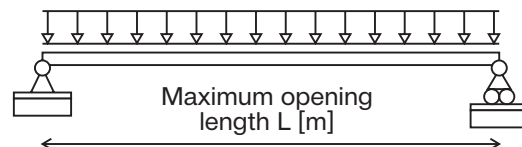
- Non-woven, synthetic polyester coating
- Intermediate mesh for dimensional stability
- Surface resistant to weather conditions, UV radiation, and mechanical stress
- Waterproofing according to EN 1928 standard
- Compatibility with bituminous waterproofing materials
- Color Light Grey or White

Max load in span - Load bearing capacity (kg/m²)

Single Span Load Table

PANEL THICKNESS

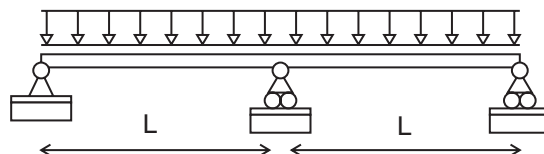
	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00
0,50	410	260	175	115	70	-	-	-	-	-	-	-	-
0,60	525	330	225	140	90	55	-	-	-	-	-	-	-
0,70	625	395	265	165	100	65	45	-	-	-	-	-	-
0,80	755	465	315	190	115	75	65	-	-	-	-	-	-
0,90	820	525	350	215	130	85	70	45	-	-	-	-	-



Multi Span Load Table

PANEL THICKNESS

	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00
0,50	430	275	185	125	80	65	50	-	-	-	-	-	-
0,60	545	345	245	150	105	80	70	55	-	-	-	-	-
0,70	650	430	290	190	120	95	75	60	50	-	-	-	-
0,80	785	505	335	210	155	115	95	75	65	-	-	-	-
0,90	870	565	380	240	180	150	125	100	80	55	-	-	-



Calculations values indicate the maximum allowable load or the serviceability limit state (I/200). The support width is 120 mm. The anchoring system must be capable of withstanding the maximum allowable loads.