

TECHNICAL CARD

termPIR® WS INSULATION BOARDS



termPIR® WS	Product details:	
Description of board:	The termPIR® WS insulation boards comprise of a PIR rigid foam thermal insulation core. The boards are protected with gas- permeable lining from glass reticular fibre (WS).	
Certificates / Approvals:		
CE mark		■
ISO 9001, ISO 14001 System certificates		■
Compatibility with EN 13165+A2 and EN 13172		■
Environmental Declaration EPD (type III)		■
Environmental Certificate (type III)		■
CO2 footprint		■
(Leed & Breeam) Green Card		■
Atest PZH		
VOC		
Keymark certificate and quality label		■
Tests of thermal properties ITB		■
Fire classifications		■
Board in the product base SVT		■
Board in the product base EPDM		■
SundaHUS		
BVB	■	
Swan- The Nordic Ecolabel		
Certificate for the system ETICS		
Admitted to trading in the EU	■	
Information about product safety:	Information about substances contained in the product referred to in Art. 31 and 33 of the Regulation (CE) No.1907/2006 (REACH): Not applicable.	
Instruction:	<p>Boards can be installed in one or multiple layers in an interlocking manner. Boards should fit tightly to each other. The substructure needs to be stable.</p> <p>Install mechanically with fasteners, glue or suspend - depending on the kind of substructure and type of waterproofing. Prevent from pulling the fasteners through the board. Secure against the impact of weather conditions. The boards are not load-bearing elements</p> <p>Additional information is available in the Technical Catalogue at the website www.termpir.eu</p>	

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Kind of core:	Rigid polyisocyanurate foam (PIR)								
Apparent PIR core density:	$\rho = 30 \text{ kg/m}^3$								
Declared heat transfer coefficient for lining:	for $(20 \leq d_N < 80 \text{ mm})$: $\lambda_D = 0,027 \text{ (W/m-K)}$								
	for $(80 \leq d_N < 120 \text{ mm})$: $\lambda_D = 0,026 \text{ (W/m-K)}$								
	for $(120 \leq d_N \leq 250 \text{ mm})$: $\lambda_D = 0,025 \text{ (W/m-K)}$								
Standard board dimensions [mm]:	600 x 1200 / 1200 x 2400 (minus the depth of the joint)								
Available boards dimensions [mm]:	1000 x 1200 / 1200 x 1200 / 1200 x 1800 / 1200 x 3000 (minus the depth of the joint)								
Coefficient: U [W/m ² ·K], wg $U = 1 / (R_e + R_D + R_i)$									
For a given nominal thickness [mm]: Thermal resistance: R_D [m ² ·K/W]	for wall	20	1,10	30	0,78	40	0,61	50	0,49
	or roof	0,70	1,14	1,10	0,80	1,45	0,62	1,85	0,50
	for floor		1,10		0,78		0,61		0,49
	60	0,42	70	0,36	80	0,31	90	0,28	
	2,20	0,42	2,55	0,37	3,05	0,31	3,45	0,28	
		0,42		0,36		0,31		0,28	
	100	0,25	110	0,23	120	0,20	130	0,19	
	3,80	0,25	4,20	0,23	4,80	0,20	5,20	0,19	
		0,25		0,23		0,20		0,19	
	140	0,17	150	0,16	160	0,15	170	0,14	
	5,60	0,17	6,00	0,16	6,40	0,15	6,80	0,14	
		0,17		0,16		0,15		0,14	
	180	0,14	190	0,13	200	0,12	210	0,12	
	7,20	0,14	7,60	0,13	8,00	0,12	8,40	0,12	
		0,14		0,13		0,12		0,12	
	220	0,11	230	0,11	240	0,10	250	0,10	
	8,80	0,11	9,20	0,11	9,60	0,10	10,00	0,10	
		0,11		0,11		0,10		0,10	
Compressive strength at 10% of deformation:	$\sigma \geq 120 \text{ kPa}$ $20 \leq d_N < 250 \text{ mm}$								
Tensile strength perpendicular to faces:	$\geq 60 \text{ kPa}$ / TR60								
Flatness after one-sided moisting:	$\leq 10 \text{ mm}$ / FW2								
Long-term absorption upon complete immersion:	$\leq 2 \%$ [kg/kg]								
Water vapour transmission:	$\mu = (90 \div 170)$								
Dimensional stability:	for $(20 \leq d_N < 50 \text{ mm})$: DS(70,-)1								
	for $(50 \leq d_N \leq 250 \text{ mm})$: DS(-20,-)2 / DS(70,90)3								
Reaction to fire (of the product as placed on the market):	20-49: F class, 50-250: E class								

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Reaction to fire (end of use) Fire spread:	B-s2,d0; „non-fire spreading product“ (on a substructure from trapezoidal sheets)
External fire performance:	Roof(t1); „non-fire spreading product“
	<p>Structure:</p> <ul style="list-style-type: none"> - base: wood, trapezoidal sheets, concrete - apour barrier: PE foil, bituminous sheeting - termPIR® WS: 20-250 mm - waterproofing: PVC, tar sheets two layers. <p>They are approved for attachment by bonding. Conditions of use as per ITB classification</p>
Fire resistance:	REI 30 / REI 20 / REI 15
	<p>Structure:</p> <ul style="list-style-type: none"> - base: trapezoidal sheet, concrete; - vapour barrier: PE foil, bituminous sheeting or no vapour barrier; - termPIR® WS: at least 120 mm (REI 30), at least 100 mm (REI 15), 70 mm (RE 30) - waterproofing: PVC, EPDM, TPO, tar sheets, steel, alu. and titanium-zinc sheets; - possible counter-slope wedges with PIR, EPS, WM. <p>termPIR® WS boards have a classification for the traditional and glued system. Conditions of use as per Fires and ITB classification</p>

Buildings:	Intended use of the board:
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residential, high density housing	on rafter insulation system on pitched roofs	
residential	under rafter insulation system on pitched roof	
residential, retail and industrial	build Up Roofs [BUR] - Flat roofs, mechanically fastened	■
residential, retail and industrial	build Up Roofs [BUR] - Flat roofs, adhesive or glued systems	■
residential, retail and industrial	triple layered external walls - cavity walls	
residential, retail and industrial	double layered external walls - ETICS system	
residential, retail and industrial	basement and foundation walls	■
residential, retail and industrial	partition walls	
residential, retail and industrial	slabs between floors	■
residential, retail and industrial	ground floor slabs	
livestock, industrial	suspended ceilings - high pressure washable	
existing, historic, stair-cores	internal wall insulation	
prefabricated concrete walls	highly resistant to corrosion caused by concrete	

■ the board recommended for use
 ■ boards that can be used
■ it is not recommended to use heat-sealable roofing felt