

## pressure resistant thermal insulation panels made of pressed polyurethane (PU) rigid foam material

pressure resistant, heat-insulating smart material for universal use in flat or pitched roofs and façade structures		- for low thermal bridge connection details - for installation of construction elements - as supporting material for composite constructions							
Cover layers	double-sided	non-laminated							
Edge formation	all round	blunt							
<b>Thickness</b>	<b>[mm]</b>	<b>10<sup>3</sup></b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>	<b>70</b>	<b>80</b>
Thermal resistance <sup>1)</sup>	R <sub>D</sub> [(m <sup>2</sup> ·K)/W]	0,10	0,20	0,35	0,45	0,55	0,70	0,75	0,90
Heat transition coefficient <sup>2)</sup>	U <sub>D</sub> [(m <sup>2</sup> ·K)/W]	4,17	2,94	2,04	1,69	1,45	1,19	1,12	0,96
Vapour diffusion resistance	S <sub>d</sub> [m]	0,08	0,16	0,24	0,32	0,40	0,48	0,56	0,64
Package content	Pieces	60	30	20	15	13	10	8	7



purenit functional material		Technical data				
Characteristic	Standard/test procedure	Unit	Indicator	max	min	
Material	highly compressed, heat-insulating smart material on the basis of rigid polyurethane foam (PU) acc. EN 13165, dimensionally stable, moisture-resistant, non-rotting, resistant to mildew and decay, recyclable, safe from biological and building ecology point of view, emission-free acc. to					
Bulk density	EN 1602	kg/m <sup>3</sup>	550	+40	-40	
Dimensions						
Length	EN 822	mm	2440			
Width	EN 822	mm	1220			
Available thicknesses	EN 823	mm	10 <sup>3</sup> , 15 <sup>3</sup> , 20, 25, 30, 40, 50, 60, 70, 80			
Thermal conductivity	EN 12667		at thickness	d ≤ 40 mm	40 < d ≤ 60 mm	
Nominal value ( EU )	λ <sub>D</sub> ETA-18/0604	W/(m·K)	0,083	0,085	0,088	
Compressive strength						
Compressive stress at 10% compression	EN 826	MPa	7,1			
Admitted long-term pressure load at < 2% compression		MPa	1,8			
Tensile strength perpendicular to panel plane	EN 1607	kPa	800			
Bending strength <sup>4)</sup>	EN 310	MPa	4,5			
E-module (bending load) <sup>4)</sup>	EN 310	MPa	30			
Transverse strength <sup>4)</sup>	EN 12090	MPa	1 - 1,5			
Shear strength <sup>4)</sup>	EN 12090	MPa	1 - 1,5			
Screw removal resistance <sup>4)</sup>			Screw	woodscrew 6x60		
Surface removal	EN 13446			11,35		
Narrow edge removal	EN 1058	N/mm <sup>2</sup>		8,0		
Head pull-through resistance				29,0		
European Technical Assessment ( EU )			ETA-18/0604			
Fire behaviour	non-smouldering, non-melting, non-dripping					
Reaction to Fire Class / RfF ( EU )	EN 13501-1		E			
Temperature resistance		°C	-50 to +100, short-term to +250°C			
Moisture absorption <sup>4)</sup>	EN 12571	% by mass	≤ 3			
Water absorption	EN 1609	kg/m <sup>2</sup>	≤ 0,5			
Thickness swelling <sup>4)</sup>	EN 312	%	≤ 0,8			
Water vapour diffusion resistance factor (PU)	EN 12086		8			
Linear expansion coefficient <sup>4)</sup>	EN 1604	1/K	5 · 10 <sup>-5</sup>			
	1) Thermal resistance of the insulation panel based on the thermal conductivity nominal values acc. to ETA-18/0604, in compliance with EN 13165. 2) Insulation element U value on the basis of the thermal conductivity nominal value acc. ETA-18/0604. Heat transfer resistances R <sub>si</sub> = 0,10 m <sup>2</sup> ·K/W and R <sub>se</sub> = 0,04 m <sup>2</sup> ·K/W (Heat flow upwards) are calculated; other component layers are not considered. 3) uncontrolled thickness range - we reserve the right to deviations from technical values 4) Lab values, not part of the factory production control and external supervision					



Declaration of performance  
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