

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

Cover layers double-sided non-laminated

Edge formation all round blunt

- for low thermal bridge connection details
- for installation of construction elements
- as supporting material for composite constructions



Thickness	[mm]	20	30	40	50	60
Thermal resistance ¹⁾	R_D [(m ² ·K)/W]	0,20	0,35	0,45	0,55	0,70
Heat transition coefficient ²⁾	U_D [(m ² ·K)/W]	2,94	2,04	1,69	1,45	1,19
Vapour diffusion resistance	S_d [m]	0	0	0	0	0
Package content	Pieces	30	20	15	13	10

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 ³	550	+40	-40	
Dimensions						
Length	EN 822	mm	2440			
Width	EN 822	mm	1220			
Available thicknesses	EN 823	mm	10 ³⁾ , 15 ³⁾ , 20, 30, 40, 50, 60 other thicknesses and formats on request			
Thermal conductivity	EN 12667		at thickness	$d \leq 40$ mm	$40 < d \leq 60$ mm	$d > 60$ mm
Nominal value (EU)	λ_D 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		
Bending strength ⁴⁾	EN 12089	MPa		4,5		
E-module (bending load) ⁴⁾	EN 12089	MPa		30		
Transverse strength ⁴⁾	EN 12090	MPa		1 - 1,5		
Shear strength ⁴⁾	EN 12090	MPa		1 - 1,5		
Screw removal resistance ⁴⁾			Screw	woodscrew 6x60		
Surface removal				11,35		
Narrow edge removal	EN 14358	N/mm ²		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 / RtF (EU)	EN 13501-1			E		
Temperature resistance		°C		-50 to +100, short-term to +250°C		
Moisture absorption	EN 12571	% by mass		≤ 3		
Water absorption	EN 1609	kg/m ²		≤ 0,5		
Thickness swelling ⁴⁾	EN 68763	%		≤ 0,8		
Water vapour diffusion resistance factor (PU)	μ EN 12086			8		
Linear expansion coefficient ⁴⁾	EN 1604	1/K		$5 \cdot 10^{-5}$		
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 $R_{si} = 0,10$ m ² ·K/W and $R_{se} = 0,04$ m ² ·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
 40243.CPR.2018.10
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ETA-18/0604
 Verification authority: 0751 FIW München