

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						
Thickness	[mm]	20	30	40	50	60	70	80
Thermal resistance ¹⁾	R _D [(m ² ·K)/W]	0,20	0,30	0,40	0,50	0,60	0,70	0,80
Heat transition coefficient ²⁾	U _D [(m ² ·K)/W]	2,94	2,27	1,85	1,56	1,35	1,19	1,06
Vapour diffusion resistance	S _d [m]	0,16	0,24	0,32	0,40	0,48	0,56	0,64
Package content	Pieces	30	20	15	13	10	8	7



purenit C 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, 25, 30, 40, 50, 60, 70, 80 other thicknesses and formats on request			
Thermal conductivity	EN 12667					
Nominal value (EU)	λ _D ETA-18/0604	W/(m·K)	0,096			
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 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 / R _t F (EU)	EN 13501-1		C-s2,d0			
Temperature resistance		°C	-50 to +100, short-term to +250°C			
Moisture absorption ⁴⁾	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 · 10 ⁻⁵			
US Patent 10844189	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
 40231.CPR.2021.09
 purenit C
www.puren.com/download

ETA-18/0604
 Verification authority: 0751 FIW München
 EN 13501
 Certification body: 0751 FIW München