

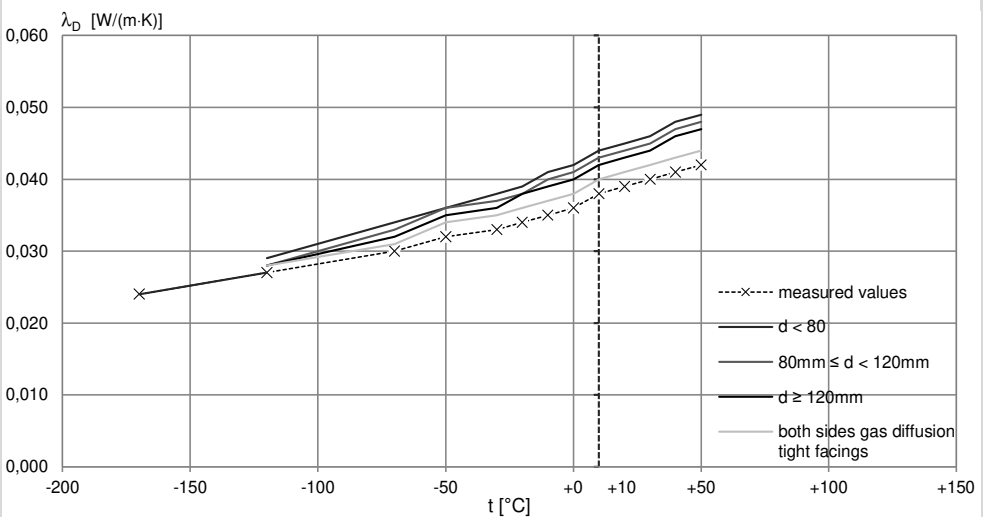
thermoset high-performance insulating material

application	for universal use in the insulation and construction area and thermal insulation of technical facilities	
assembly	unlaminated blocks, boards or pre-cut parts dimensions at customer's option upon request dimensional tolerances acc. to puren factory standard	

puren-PIR NE 200 **Technical data PU rigid foam**

Characteristic Standard/test procedure Unit Indicator
 Material Polyurethane rigid foam (PU) in compliance with EN 13165 acc. to EN 14308, quality-certified, harmless from a biological and building ecology point of view, recyclable, rotproof, resistant to mildew and decay.

Bulk density	EN 1602	kg/m ³	186 - 205		
Thermal conductivity					
Monitored limit value (fresh value) at 10°C mean temperature	EN 12667	W/(m·K)	0,038		
Nominal value (EU) λ_D at 10°C application temperature			at thickness		
in the application temperature range -170 °C to +50 °C	EN 14308	W/(m·K)	d < 80 mm	80 ≤ d < 120 mm	d ≥ 120 mm
			0,044	0,043	0,042



Thermal insulation resistance for thickness	mm	20	40	60	80	100	120	140	160	180	200
R_D	m ² ·K/W	0,45	0,90	1,35	1,85	2,30	2,85	3,30	3,80	4,25	4,75

Compressive strength		measured values ²⁾	
Compressive stress at 10% compression	EN 826	kPa	2700
E-modulus (compressive stress) ²⁾		MPa	2600 - 3100
Tensile strength perpendicular to panel plane			
Transverse tensile strength	EN 1607	kPa	150
E-modulus (transverse tensile stress) ²⁾		MPa	2000 - 2300
Bending strength ²⁾	EN 12089	kPa	70,0 - 80,0
Transverse strength ²⁾	EN 12090 (in compliance with DIN 53427)	kPa	2700 - 3300
Shear strength ²⁾	EN 12090 (in compliance with DIN 53294)	kPa	1000 - 1300
Designation (EU)	EN 14308	PU-EN 14308-DS(TH)3-CS(10\Y)2700	

Fire behaviour	non-smouldering, non-melting, non-dripping		
Reaction to Fire Class / RtF (EU)	EN 13501-1		E
Closed cell content ²⁾	ISO 4590	%	90 - 95
Temperature resistance		°C	-30 bis +120, short-term to 250 °C
Moisture absorption ²⁾	EN 12087	Vol.-%	≤ 3

1) Literature value, not part of the factory production control and external supervision.
 2) Average values calculated on a regular basis under production conditions as part of factory production control. It is ensured that mechanical characteristic values do not fall below their minimum level by more than 10%..

	Declaration of performance 30139.CPR.2020.10 puren-PIR NE 200 www.puren.com/download		EN 14308:2015 Verification authority: 0751 FIW München		controlled by 0751 FIW München

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Specific heat capacity ¹⁾	C	EN 12524	J/(kg·K)	1400
Water vapour diffusion resistance factor ¹⁾	μ	EN 12086		40 - 200
Linear expansion coefficient ¹⁾		EN 1604	1/K	5 - 8 · 10 ⁻⁵