


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 300 **Technical data PU rigid foam**

Characteristic	Standard/test procedure	Unit	Indicator
Material	Polyurethane rigid foam (PU) in compliance with EN 13165 and EN 14308, harmless from a biological and building ecology point of view, recyclable, rotproof, resistant to mildew and decay.		
Bulk density	EN 1602	kg/m ³	280 - 320
Thermal conductivity Fresh values ²⁾		W/(m·K)	0,046 - 0,050
Compressive strength			measured values ²⁾
Compressive stress at 10% compression	EN 826	kPa	4700 - 5200
E-modulus (compressive stress) ²⁾		MPa	100,0 - 125,0
Tensile strength perpendicular to panel plane			
Transverse tensile strength	EN 1607	kPa	2500 - 2900
E-modulus (transverse tensile stress) ²⁾		MPa	80,0 - 100,0
Bending strength ²⁾	EN 12089	kPa	4500 - 5100
Transverse strength ²⁾	EN 12090 (in compliance with DIN 53427)	kPa	1000 - 1300
Shear strength ²⁾	EN 12090 (in compliance with DIN 53294)	kPa	1500 - 1800
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
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

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%..