

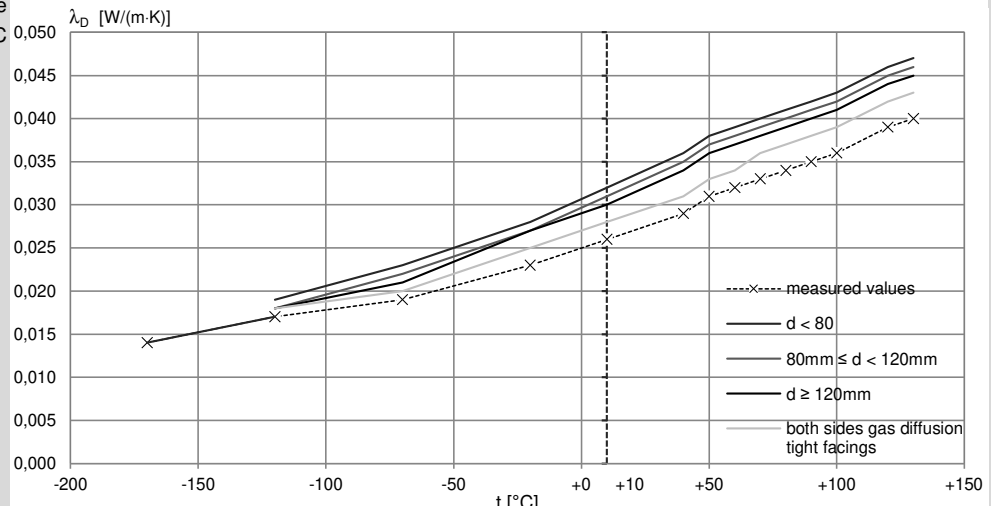
thermoset high-performance insulating material

application	for universal use in the insulation and construction area, thermal insulation of technical facilities as well as rail vehicle sector
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 100 Technical data PU rigid foam

Characteristic	Standard/test procedure	Unit	Indicator			
Material	Polyurethane rigid foam (PU) acc. to EN 13165 and 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	95 - 102			
Thermal conductivity						
Monitored limit value (fresh value) at 10°C mean temperature	EN 12667	W/(m·K)	0,026			
Nominal value (EU) λ_D			at thickness	d < 80 mm	80 ≤ d < 120 mm	d ≥ 120 mm
at 10°C application temperature	EN 13165			0,032	0,031	0,030
in the application temperature range -170 °C to +120 °C	EN 14308	W/(m·K)				



Thermal insulation resistance for thickness	mm	20	40	60	80	100	120	140	160	180	200
R_D	m ² ·K/W	0,60	1,25	1,85	2,55	3,20	4,00	4,65	5,30	6,00	6,65

Compressive strength			measured values ²⁾	
Compressive stress at 10% compression	EN 826	kPa	900	900 - 1000
E-modulus (compressive stress) ²⁾		MPa		32,0 - 38,0
Tensile strength perpendicular to panel plane				
Transverse tensile strength		kPa	150	950 - 1000
E-modulus (transverse tensile stress) ²⁾	EN 1607	MPa		31,0 - 38,0
Bending strength ²⁾	EN 12089	kPa		1200 - 1400
Transverse strength ²⁾	EN 12090 (in compliance with DIN 53427)	kPa		450 - 520
Shear strength ²⁾	EN 12090 (in compliance with DIN 53294)	kPa		470 - 600

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
 20136.CPR.2020.10
 puren-PIR NE 100
www.puren.com/download



EN 13165:2012+A2:2016
 EN 14308:2015
 Verification authority: 0751 FIW München



controlled by
 0751 FIW München

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puren-PIR NE 100		Technical data PU rigid foam				
Characteristic	Standard/test procedure	Unit	Indicator			
Designation (EU)	EN 13165	PU-EN 13165-T2-DS(70,90)3-DS(-20,-)2-CS(10\Y)900-TR150				
	EN 14308	PU-EN 14308-DS(TH)3-CS(10\Y)800				
Fire behaviour	non-smouldering, non-melting, non-dripping					
Reaction to Fire Class / RtF (EU)	EN 13501-1	E				
preventive fire protection in rail vehicles	DIN 5510-2	Brennbarkeits- klasse	Smoke formation class	Drippability class	FED	
	weitere Nachweise auf Anfrage	S-4	SR-2	ST-2	15 min	30 min
					0,02	0,04
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			