

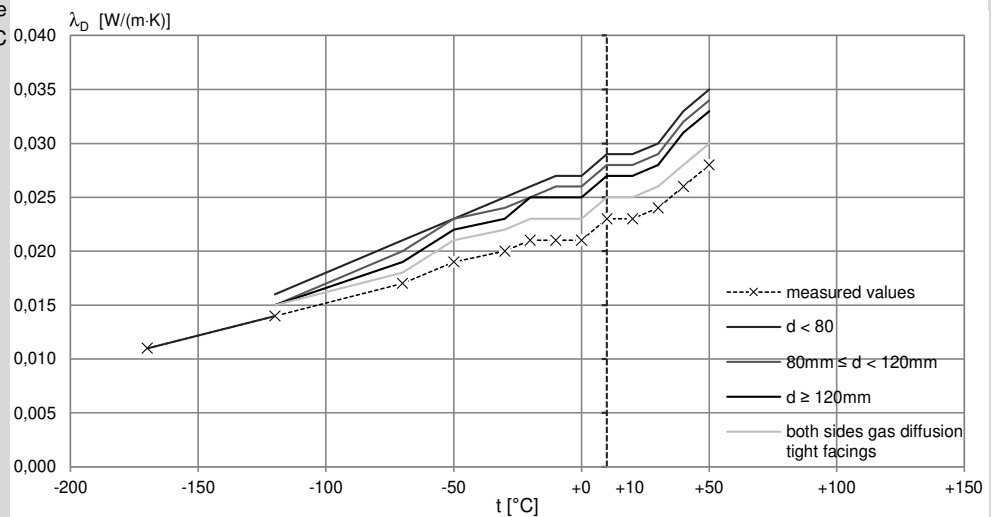
**thermoset high-performance insulating material**

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 70 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 <sup>3</sup>	67 - 72		
Thermal conductivity					
Monitored limit value (fresh value) at 10°C mean temperature	EN 12667	W/(m·K)	0,023		
Nominal value ( EU ) $\lambda_D$ at 10°C application temperature	EN 14308	W/(m·K)	at thickness d < 80 mm	80 ≤ d < 120 mm	d ≥ 120 mm
in the application temperature range -170 °C to +50 °C			0,029	0,028	0,027



Thermal insulation resistance for thickness	mm	20	40	60	80	100	120	140	160	180	200
$R_D$	m <sup>2</sup> ·K/W	0,65	1,35	2,05	2,85	3,55	4,40	5,15	5,90	6,65	7,40

Compressive strength	measured values <sup>2)</sup>										
Compressive stress at 10% compression	EN 826			kPa	500		520 - 600				
E-modulus (compressive stress) <sup>2)</sup>				MPa	15,0 - 18,0						

Tensile strength perpendicular to panel plane											
Transverse tensile strength	EN 1607			kPa	150		560 - 680				
E-modulus (transverse tensile stress) <sup>2)</sup>				MPa	19,5 - 24,0						

Bending strength <sup>2)</sup>	EN 12089			kPa	650 - 850						
Transverse strength <sup>2)</sup>	EN 12090 (in compliance with DIN 53427)			kPa	270 - 350						
Shear strength <sup>2)</sup>	EN 12090 (in compliance with DIN 53294)			kPa	330 - 430						

Designation ( EU ) EN 14308 PU-EN 14308-DS(TH)3-CS(10\Y)400

Fire behaviour non-smouldering, non-melting, non-dripping

Reaction to Fire Class / RtF ( EU ) EN 13501-1 E

Closed cell content <sup>2)</sup> ISO 4590 % 90 - 95

Temperature resistance °C -30 bis +120, short-term to 250 °C

Moisture absorption <sup>2)</sup> 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  
 30134.CPR.2020.10  
 puren-PIR NE 70  
[www.puren.com/download](http://www.puren.com/download)

EN 14308:2015  
 Verification authority: 0751 FIW München

controlled by  
 0751 FIW München

## puren-PIR NE 70



EU / EN

## thermoset high-performance insulating material

puren-PIR NE 70		Technical data PU rigid foam		
Characteristic		Standard/test procedure	Unit	Indicator
Specific heat capacity <sup>1)</sup>	C	EN 12524	J/(kg·K)	1400
Water vapour diffusion resistance factor <sup>1)</sup>	μ	EN 12086		40 - 200
Linear expansion coefficient <sup>1)</sup>		EN 1604	1/K	5 - 8 · 10 <sup>-5</sup>