Product Data Sheet

puren-PIR NE 32 HF

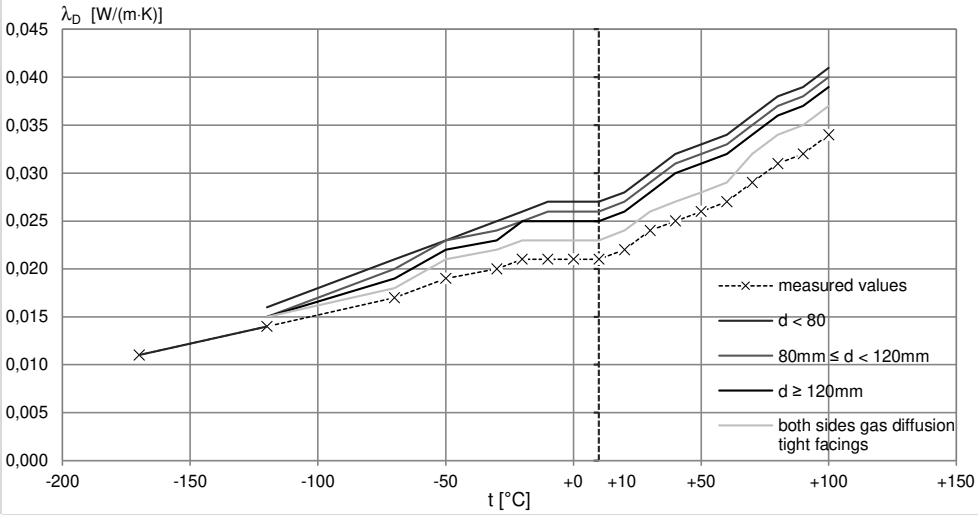
EU / CH / EN

thermoset high-performance insulating material

application	for thermal insulation of technical facilities halogen-free unlaminated
assembly	blocks, boards or pre-cut parts dimensions at customer's option upon request dimensional tolerances acc. to puren factory standard

puren-PIR NE 32 HF — Technical data PU rigid foam

Characteristic	Standard/test procedure	Unit	Indicator		
Material	Polyurethane rigid foam (PU) acc. to EN 14308, quality-certified, harmless from a biological and building ecology point of view, recyclable, rotproof, resistant to mildew and decay, free from halogenated production components (< 0.2% from technical impurities).				
Bulk density	EN 1602	kg/m³	ca. 32		
Thermal conductivity					
Monitored limit value (fresh value) at 10°C mean temperature	EN 12667	W/(m·K)	0,021		
Nominal value (EU) λ_D		at thickness	d < 80 mm	80 ≤ d < 120 mm	d ≥ 120 mm
at 10°C application temperature	EN 14308	W/(m·K)	0,027	0,026	0,025
in the application temperature range -170 °C to +100 °C					



Thermal insulation resistance for thickness	mm	20	40	60	80	100	120	140	160	180	200
R_D	m²·K/W	0,70	1,45	2,20	3,05	3,80	4,80	5,60	6,40	7,20	8,00

Compressive strength				measured values [2]
Compressive stress at 10% compression	EN 826	kPa	120	140 - 170
E-modulus (compressive stress) [2]		MPa		3,0 - 4,0
Tensile strength perpendicular to panel plane				
Transverse tensile strength	EN 1607	kPa	100	150 - 180
E-modulus (transverse tensile stress) [2]		MPa		5,0 - 7,0
Bending strength [2]	EN 12089	kPa		230 - 280
Transverse strength [2]	EN 12090 (in compliance with DIN 53427)	kPa		100 - 130
Shear strength [2]	EN 12090 (in compliance with DIN 53294)	kPa		110 - 140
Designation (EU)	EN 14308	PU-EN 14308-DS(TH)3-CS(10\Y)120-ST(+)120		
Fire behaviour	non-smouldering, non-melting, non-dripping			
Reaction to Fire Class / RtF (EU)	EN 13501-1		E	
Fire behaviour group (CH)	VKF		RF3 (cr)	
Water-soluble chlorides	EN 13468	ppm	≤ 60	(100°C / 30 min)

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
30113.CPR.2020.10
puren-PIR NE HF
www.puren.com/download

CE
EN 14308:2015
Verification authority: 0751 FIW München

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State of the art 06/2022 I ME

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puren-PIR NE 32 HF Characteristic		Technical data PU rigid foam Standard/test procedure	Unit	Indicator
Thermal disposal		declaration acc. to SIA 493		
Closed cell content [2)]		ISO 4590	%	90 - 95
Upper application limit temperature		EN 14706	°C	120
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}