



VIPALL is a vacuum insulation panel

Name of product	VIP4ALL		
Function of product	thermal insulation with minimum space		
Form	panel		
Raw Material	lightweight siliceous based mineral powder		
<b>Properties</b>			
<b>Property</b>	<b>Unit</b>	<b>Value</b>	<b>Test methods/standardisation</b>
Chemical/physical properties			
Bulk density	kg/m <sup>3</sup>	<b>250-300</b>	<b>EN 1602</b>
Composition of materials		<b>siliceous mineral powder</b>	
Structures and construction			
Dimensions of product	m	0,5x0,5x0,04	
Mechanical properties			
Compressive strength	N/mm <sup>2</sup>	300	at 10% compression
Flexural strength	N/mm <sup>2</sup>		
Tensile strength	N/mm <sup>2</sup>		
Thermal properties			
Thermal conductivity	W/(m·K)	0.006	initial value at 40 mm thickness
	W/(m·K)	0.01	value including aging, edge losses at 40 mm thickness
	W/(m·K)	0.05	ventilated
Specific heat capacity			
Hygrothermal properties			
Humidity stability		0-60%	
Water vapour diffusion resistance factor			
Moisture buffer value	kg/(m <sup>2</sup> ·%RH)		
Water vapour permeability	kg/(m·s·Pa)		
Acoustic properties			
Sound absorption coefficient	%	n/a	
Sound reduction index	dB	n/a	
Fire Safety			
Reaction to fire		inflammable (E)	EN ISO 11925-2
Resistance to fire	Minutes		
Environmental properties			
Embodied energy (% renewable)	MJ/kg		
Embodied energy (% renewable)	MJ/FU*		*FU= 1m <sup>2</sup> of insulation material for R=1 m <sup>2</sup> K/W
GHG emissions	kg CO <sub>2</sub> eq		
GHG emissions	kg CO <sub>2</sub> eq/FU*		*FU= 1m <sup>2</sup> of insulation material for R=1 m <sup>2</sup> K/W
TVOC (SVOC)	µg/m <sup>3</sup>		
Radon	Bq/m <sup>3</sup>		
Photocatalytic capacity			