



The biobased internal wall element is produced by foam forming technology and it composed of wood fibres and is fire retardant. The material is suitable for lightweight partition walls, the inner surfaces of facades and ceilings. This product was developed by VTT Technical Research Centre of Finland as part of the OSIRYS project.

Name of product	Biobased internal wall element		
Function of product	Internal wall finishes		
Form	Sheet		
Raw Material	Wood fibres, fire retardant		
Properties			
Property	Unit	Value	Test methods/standardisation
Chemical/physical properties			
Bulk density	kg/m <sup>3</sup>	400	ISO 534
Composition of materials			wood fibres and halogen-free fire retardant
Structures and construction			
Dimensions of product	m		Customized dimensions
Mechanical properties			
Compressive strength	N/mm <sup>2</sup>		
Flexural strength	N/mm <sup>2</sup>	9.5	SFS-EN 520 (modified)
Tensile strength	N/mm <sup>2</sup>		
Shrinkage	mm/m		
Thermal properties			
Thermal conductivity	W/(m·K)	0.14	ISO 22007-2
Specific heat capacity	J/(Kg·K)	0.9	ISO 22007-2
Hygrothermal properties			
Water vapour diffusion resistance factor	μ	12.7	ISO 12572:2001
Moisture buffer value	kg/(m <sup>2</sup> ·%RH)		
Water vapour permeability	kg/(m·s·Pa)		
Acoustic properties			
Sound absorption coefficient		0.3	1500 Hz, ISO 10534-2
Sound reduction index	dB		
Fire Safety			
Reaction to fire	kW/m <sup>2</sup>	21.2	MARHE in Cone Calorimeter test (ISO 5660-2:2002)
Resistance to fire	Minutes		
Environmental properties			
Embodied energy (% renewable)	MJ/kg		
GHG emissions	kg CO <sub>2</sub> eq		
TVOC (SVOC)	μg/m <sup>3</sup>		
Radon	Bq/m <sup>3</sup>		
Photocatalytic capacity			