

PRODUCT CERTIFICATE

Certificate No VTT-C-1829-07

Suomen Selluvilla-Eriste Oy
produces
Selluvilla SV

Selluvilla SV is in-situ formed loose fill thermal insulation made of cellulose fibres and boron mineral preservatives. Depending on the application there are three different product types based on the same factory made product.

Type 1: Blown thermal insulation intended to be used for open insulation spaces of horizontal or slightly sloped ceilings and roofs.

Type 2: Blown thermal insulation intended to be used for closed insulation spaces of horizontal or sloped ceilings, roofs and floors.

Type 3: Sprayed (with moisture and binders) thermal insulation intended to be used for insulation of vertical walls

The properties of the three product types of Selluvilla SV thermal insulation have been tested and calculated at VTT. The summary of the tested properties is presented below:

Property	Test/evaluation method	Unit	Requirement	Result
Thermal conductivity, λ DECLARED	EN 12667 and EN ISO 10456	W/mK	To be declared	Type 1: * 0,039 Type 2: 0,038 Type 3: 0,038
Density	EN 12667	kg/m ³	-	Type 1: 30 Type 2: 45 Type 3: 35
	EN 1602			
Air permeability	EN 29053	m ³ /(m s Pa)	Type 1: $\leq 135 \times 10^{-6}$ Type 2: $\leq 90 \times 10^{-6}$ Type 3: $\leq 135 \times 10^{-6}$	* $\leq 130 \times 10^{-6}$ $\leq 90 \times 10^{-6}$ $\leq 130 \times 10^{-6}$
Mould growth	CUAP In situ formed loose fill thermal insulation material made of vegetable or animal fibres, June 2003, Annex C	class 0: no visible growth when examined with microscope (EN ISO 846)	To be declared	Class 0
Emissions	VTT method (FLEC)	TVOC $\mu\text{g}/\text{m}^2 \text{ h}$	To be declared	87
Reaction to fire	EN 13501-1	A1 - F	To be declared	Type 1:D-s1,d0

*Test results measured when the product is compressed 15 % (calculated from thickness of compressed insulation)

According to the results, Selluvilla SV thermal insulation is suitable to be used as thermal insulation of buildings.

This certificate is valid until 14.5.2009 on condition that the product is not essentially changed and the manufacturer and VTT have a valid quality control contract. Inquiries concerning the validity of the certificate may be addressed to VTT. Other conditions are listed on the reverse side of the certificate.

Espoo 14.5.2007



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Other conditions:

Where reference is made in this certificate to any regulations, publications, standards or other documents, it shall be construed as a reference to such publication in the form of which it is in force at the date of this certificate.

The manufacturer is responsible for the quality and continuous quality control of the product. In granting this certificate, VTT does not accept responsibility to any person or body for any loss or damage incurred in respect of personal injury arising as direct or indirect result of the use of this product.

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