

Isover Fassil

Stone wool insulation



TECHNICAL SPECIFICATION

Insulating slabs made of Isover mineral wool. Production is based on drawing the mineral melt with other additives and ingredients. The mineral fibres produced are processed into the final slab shape on the production line. The entire fibre surface is hydrophobic. The slabs in the construction should be protected suitably against the weather effects (outer sheathing, alternatively diffusion foil).



APPLICATION

Isover Fassil slabs are suitable for insulation of the outer walls of ventilated facade systems and are to be inserted into the grid under the cladding, or mechanically bonded to the multi-layer masonry. The slabs can be mechanically bonded using clamps for soft MW insulations. Insulating slabs are not glued to the surface. To harden the surface it is possible to manufacture these slabs coated with black or white mineral non-woven fabric. This possible modification is called Isover Fassil NT. The coating is not adapted to additional adjustments (painting, gluing, etc.). The material is suitable for fire protection system constructions where a density of $\geq 50 \text{ kg}\cdot\text{m}^{-3}$ is required.

Especially the energy saving insulation type $\lambda_D = 0.034 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$.

BENEFITS

- Very good thermal insulation performance.
- Fire resistance.
- Excellent acoustic properties in terms of noise absorption.
- Low vapour resistance – good water vapour penetrability.
- Environmentally friendly and hygienic.
- Completely hydrophobic.
- Long life span.
- Resistant to wood-destroying pests, rodents, and insects.
- Easy workability – can be cut, drilled into, etc.
- Dimensional stability during temperature change.

PACKAGING, TRANSPORT, WAREHOUSING

Isover Fassil insulation slabs are packed into the PE film with package height up to 0.5 m. The slabs have to be transported in covered vehicles under conditions preventing their wetting or other degradation. The products are stored indoors or outdoors depending on the conditions specified in the current Isover price list.

DIMENSIONS AND PACKAGING

Thickness [mm]	Length × width [mm]	Volume per package			Quantity per pallet [m ²]	Declared thermal resistance R_D [m ² ·K·W ⁻¹]
		[pcs]	[m ²]	[m ³]		
30*	1 200 × 600 (625*)	16	11.52	0.35	264.96	0.85
40*	1 200 × 600 (625*)	12	8.64	0.35	198.72	1.15
50	1 200 × 600 (625*)	10	7.20	0.36	165.60	1.45
60	1 200 × 600 (625*)	8	5.76	0.35	132.48	1.75
80	1 200 × 600 (625*)	6	4.32	0.35	99.36	2.35
100	1 200 × 600 (625*)	5	3.60	0.36	82.80	2.90
120	1 200 × 600 (625*)	4	2.88	0.35	66.24	3.50
140	1 200 × 600 (625*)	3	2.16	0.30	56.16	4.10
160	1 200 × 600 (625*)	3	2.16	0.35	49.68	4.70
180*	1 200 × 600 (625*)	2	1.44	0.26	41.76	5.25
200*	1 200 × 600 (625*)	2	1.44	0.29	37.44	5.85

* Consult the producer for terms of delivery.

TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code						
Geometric shape										
Length <i>l</i>	[% , mm]	EN 822	±2%							
Width <i>b</i>	[% , mm]	EN 822	±1,5%							
Thickness <i>d</i>	[% , mm]	EN 823	-3% or -3 mm ¹⁾ and +5 mm or +5 mm ²⁾	Class of thickness tolerances	T4					
Deviation from squareness of the edge on length and width <i>S_b</i>	[mm·m ⁻¹]	EN 824	5							
Deviation from flatness <i>S_{max}</i>	[mm]	EN 825	6							
Relative change in length $\Delta\epsilon_l$ in width $\Delta\epsilon_b$ in thickness $\Delta\epsilon_d$	[%]	EN 1604	1	Dimensional stability under the specified temperature and humidity conditions	DS(70,-)					
Thermal technical properties										
Declared value of thermal conductivity coefficient λ_b ³⁾	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.034							
Design thermal conductivity λ_d ⁴⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.036							
Specific heat capacity <i>c_d</i>	[J·kg ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	800							
Fire safety properties										
Reaction to fire class	[-]	Declaration according to EN 13501-1+A1	A1							
Maximum temperature for use	[°C]		200							
Melting temperature <i>t_f</i>	[°C]	DIN 4102 part 17	≥ 1000							
Hydrothermal properties										
Water vapour diffusion resistance factor μ	[-]	Declaration according to EN 13162+A1	1	Declared value for water vapour diffusion resistance factor	MU1					
Other properties										
Density	[kg·m ⁻³]	EN 1602	50							
Acoustic properties ⁵⁾										
Practical sound absorption coefficient α_p	[-]	EN 13162+A1		Level of practical sound absorption coefficient			AP			
		EN ISO 11654								
		Declaration according to EN ISO 354								
	Frequency	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz		4000 Hz		
	Thickness	60 mm	0.20	0.75	1.00	1.00	1.00	1.00		
		80 mm	0.35	1.00	1.00	1.00	1.00	1.00		
100 mm		0.45	1.00	1.00	1.00	1.00	1.00			
Weighted sound absorption coefficient α_w Noise reduction coefficient NRC	[-]	EN ISO 11654 (for NRC according ASTM C423)		Level of weighted sound absorption coefficient			AW			
		Single number value	α_w					NCR		
		60 mm	1.00					0.95		
	Thickness	80 mm	1.00		1.00					
		100 mm	1.00		1.05					
		120 mm	1.00		1.05					
Specific air flow resistivity <i>r</i>	[kPa·s·m ⁻²]	EN 13162+A1		Level of air flow resistivity			AFr			
		Measurement according to EN ISO 9053-1		14.5						

¹⁾ Value with greatest numerical tolerance.²⁾ Value with lowest numerical tolerance.³⁾ Declared values were set under the following conditions: (reference temperature 10 °C, humidity u_{dry} reached by drying) according to EN ISO 10456.⁴⁾ Valid for typical use in construction with risk of condensation. In the case of construction without any risk of condensation, it is possible to use the declared value of thermal conductivity.⁵⁾ Informative non-declared value beyond the scope of CPR, obtained by specific tests.

RELATED DOCUMENTS

- Declaration of Performance
- Environmental Product Declaration
- ISO 9001, ISO 14001, ISO 45001, ISO 50001

More about the product

www.isover.cz/en/products/mineralni-vlna/isover-fassil


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