



# Isover Fassil NT

## 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 NT slabs are suitable for insulation of outer walls of ventilated facade systems and are to be inserted into the grid under the cladding, or fitted mechanically in the multi-layer masonry. The slabs can be fitted mechanically using clamps for soft MW insulation. Insulating slabs are not glued to the surface. To harden the surface, these slabs are coated with black non-woven fibreglass fabric. It is necessary to protect the coating against an excessive wind impact if used on a ventilated facade. When the material is used to insulate ceilings, it is also necessary to use metal dowel pins with respect to fire security that cannot be positioned at the edge of the slab. The coating is not suitable for additional treatment (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  $\lambda_0 = 0.034 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$ .**

### 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 NT 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]	Quantity per pallet [m <sup>3</sup> ]	Quantity per pallet [m <sup>2</sup> ]	Declared thermal resistance $R_0$ [m <sup>2</sup> ·K·W <sup>-1</sup> ]
50*	1 200 × 1 000	2.520	50.40	1.45
60*	1 200 × 600	3.110	51.84	1.75
80*	1 200 × 600	3.110	38.88	2.35
100*	1 200 × 600	3.024	30.24	2.90
120*	1 200 × 600	3.110	25.92	3.50
140*	1 200 × 600	3.024	21.60	4.10
160*	1 200 × 600	2.765	17.28	4.70
180*	1 200 × 600	3.024	16.80	5.25
200*	1 200 × 600	2.880	14.40	5.85

\* Consult the producer for terms of delivery.

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## 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 <sup>1)</sup> and +5 mm or +5 mm <sup>2)</sup>	Class of thickness tolerances	T4						
Deviation from squareness of the edge on length and width <i>S<sub>b</sub></i>	[mm·m <sup>-1</sup> ]	EN 824	5								
Deviation from flatness <i>S<sub>max</sub></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 $\lambda_D$ <sup>3)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.034								
Design thermal conductivity $\lambda_D$ <sup>4)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	0.036								
Specific heat capacity <i>c<sub>d</sub></i>	[J·kg <sup>-1</sup> ·K <sup>-1</sup> ]	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<sub>f</sub></i>	[°C]	DIN 4102 part 17	≥ 1000								
Hydrothermal properties											
Water vapour diffusion resistance factor $\mu$	[-]	Declaration according to EN 13162+A1	1	Declared value for water vapour diffusion resistance factor	MU1						
Other properties											
Density	[kg·m <sup>-3</sup> ]	EN 1602	50								
Acoustic properties <sup>5)</sup>											
Practical sound absorption coefficient $\alpha_p$	[-]	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				
120 mm		0.60	1.00	1.00	1.00	1.00	1.00				
Weighted sound absorption coefficient $\alpha_w$ Noise reduction coefficient NRC	[-]	EN ISO 11654 (for NRC according ASTM C423)		Level of weighted sound absorption coefficient			AW				
		Single number value						$\alpha_w$		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 <sup>-2</sup> ]	EN 13162+A1 Measurement according to EN ISO 9053-1		Level of air flow resistivity			AFr				
				20							

<sup>1)</sup> Value with greatest numerical tolerance.

<sup>2)</sup> Value with lowest numerical tolerance.

<sup>3)</sup> Declared values were set under the following conditions: (reference temperature 10 °C, humidity  $u_{dry}$  reached by drying) according to EN ISO 10456.

<sup>4)</sup> 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.

<sup>5)</sup> Informative non-declared value beyond the scope of CPR, obtained by specific tests.

## RELATED DOCUMENTS

- Declaration of Performance CZ0001-006
- Certificate of stability of properties
- ISO 9001, ISO 14001, ISO 45001, ISO 50001

## More about the product

[www.isover.cz/en/products/mineralni-vlna/isover-fassil-nt](http://www.isover.cz/en/products/mineralni-vlna/isover-fassil-nt)



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