



# Isover Topsil NT

## Stone wool insulation

### TECHNICAL SPECIFICATION

Insulating slabs made of Isovver mineral wool. The production method is based on drawing the mineral composition 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 water repellent. The slabs in the construction should be protected in a suitable manner (outer sheathing, alternatively diffusion foil).



### APPLICATION

Isover Topsil NT boards are suitable for insulating the external walls of pre-hung facade systems, they are inserted under the cladding in a grid or mechanically anchored, in multi-layer masonry. The boards can be mechanically anchored to the wall with holders for soft mineral insulation. Insulation boards are not glued to the substrate. To strengthen the surface, these boards are also covered with black glass non-woven fabric. The adhesive must be protected from excessive wind during the installation of a ventilated facade. In the case of using material to insulate the false ceilings, it is also necessary to consider in advance the use of metal dowels for the sake of fire safety, and their location must not be on the edge of the board. The adhesive itself is not suitable for additional modifications (painting, gluing, etc.). The material is suitable for fire protection system structures where the volume density  $60 \geq \text{kg}\cdot\text{m}^{-3}$  is required.

**Superior thermal insulation material with  $\lambda_0 = 0.033 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$ .**

### 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 Tospil 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 Isovver price list.

### DIMENSIONS AND PACKAGING

Thickness [mm]	Length × width [mm]	Quantity per pallet [m <sup>2</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	1.50
60*	1 200 × 600	3.110	51.84	1.80
80*	1 200 × 600	3.110	38.88	2.40
100*	1 200 × 600	3.024	30.24	3.00
120*	1 200 × 600	3.110	25.92	3.60
140*	1 200 × 600	3.024	21.60	4.20
160*	1 200 × 600	2.765	17.28	4.80
180*	1 200 × 600	3.024	16.80	5.45
200*	1 200 × 600	2.880	14.40	6.05

\* 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>e</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 (23/90)		
Thermal technical properties								
Declared value of thermal conductivity coefficient $\lambda_p$ <sup>3)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	Declaration according to EN 13162+A1	0.033					
		Measurement according to EN 12667						
Design thermal conductivity $\lambda_a$ <sup>4)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	0.035					
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>i</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	60					
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	40 mm	0.16	0.47	0.86	1.00	1.00	1.00
		60 mm	0.27	0.92	1.00	1.00	1.00	1.00
		80 mm	0.50	1.00	0.96	1.00	1.00	1.00
100 mm		0.50	1.00	0.98	1.00	1.00	1.00	
Weighted sound absorption coefficient $\alpha_w$	[-]	EN ISO 11654 (for NRC according ASTM C423)		Level of weighted sound absorption coefficient				AW
	Single number value		$\alpha_w$					
	Thickness	40 mm	0.75 (MH)					
		60 mm	1.00					
		80 mm	1.00					
		100 mm	1.00					
Specific air flow resistivity <i>r</i>		EN 13162+A1		Level of air flow resistivity			AFr	
	[mm]	Measurement according to EN ISO 9053-1		60				
	[kPa·s·m <sup>-2</sup> ]			22.1				

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



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