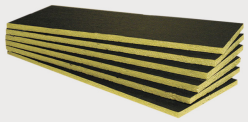
Product identification code: CZ0001-043
Specification code: MW-EN 13 162-T4-MU1

Isover Topsil NT

Stone wool insulation



TECHNICAL SPECIFICATION

Insulating slabs made of Isover 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 ≥ kg·m^{-3} is required.

Superior thermal insulation material with λ_D = 0.033 W·m^{-1}·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 Isover price list.

DIMENSIONS AND PACKAGING

Thickness [mm]	Length × width [mm]	Quantity per pallet [m^3]	Quantity per pallet [m^2]	Declared thermal resistance R_D [m^2·K·W^{-1}]
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 *l*	[%, mm]	EN 822	±2%		
Width *b*	[%, mm]	EN 822	±1,5%		
Thickness *d*	[%, 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 S_b	[mm·m^{-1}]	EN 824	5		
Deviation from flatness S_{max}	[mm]	EN 825	6		
Relative change in length $\Delta\varepsilon_l$, in width $\Delta\varepsilon_b$, in thickness $\Delta\varepsilon_d$	[%]	EN 1604	1	Dimensional stability under the specified temperature and humidity conditions	DS (23/90)
Thermal technical properties					
Declared value of thermal conductivity coefficient λ_D[3]	[W·m^{-1}·K^{-1}]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.033		
Design thermal conductivity λ_u[4]	[W·m^{-1}·K^{-1}]	ČSN 73 0540-3	0.035		
Specific heat capacity c_d	[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 t_t	[°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	60		
Acoustic properties[5]					

Practical sound absorption coefficient α_p	[-]	EN 13162+A1 EN ISO 11654 Declaration according to EN ISO 354	Level of practical sound absorption coefficient					AP
	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 α_w	[-]	EN ISO 11654 (for NRC according ASTM C423)	Level of weighted sound absorption coefficient					AW
	Single number value		α_w					
	Thickness	40 mm	0.75 (MH)					
		60 mm	1.00					
		80 mm	1.00					
		100 mm	1.00					
Specific air flow resistivity *r*		EN 13162+A1	Level of air flow resistivity					AFr
	[mm]	Measurement according to EN ISO 9053-1	60					
	[kPa·s·m^{-2}]		22.1					

[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
- Certificate of stability of properties
- ISO 9001, ISO 14001, ISO 45001, ISO 50001

23/8/2023 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.

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