

Isover MAXIL NT

Mineral insulation from stone wool

TECHNICAL SPECIFICATION

Insulating slabs made of Isover mineral wool. The production is based on defibring method of the minerals composition melt and additional 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 MAXIL NT 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 into the multi-layer masonry. The slabs can be mechanically bond using the 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 MAXIL NT. The coating is not adapted to additional adjustments (painting, gluing, etc.). The material is suitable for fire protection system constructions where the density $75 \geq \text{kg} \cdot \text{m}^{-3}$ is required.

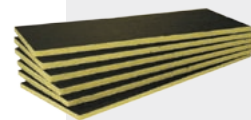
Especially the energy saving insulation type $\lambda_0 = 0,034 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$.

PACKAGING, TRANSPORT, WAREHOUSING

Isover MAXIL NT insulation slabs are packed into the PE foil 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.

BENEFITS

- very good thermal insulation performance
- fire-resistant
- 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 insect
- easy workability - can be cut, drilled into, etc.
- dimensional stability during temperature change



DIMENSIONS AND PACKAGING

Thickness	[mm]	30*	40*	50*	60*	80*	100*
Length x width	[mm]	1200 x 600					
Volume per package	[ks]	15	10	8	7	5	4
	[m²]	10.80	7.20	5.76	5.04	3.60	2.88
	[m³]	0.32	0.29	0.29	0.30	0.29	0.29
Quantity per palette	[m²]	120.96	86.40	69.12	60.48	43.20	34.56
Declared thermal resistance R_D	[m²·K·W⁻¹]	0.85	1.15	1.45	1.75	2.35	2.95

* It is necessary to consult with the producer for the terms of delivery.

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 % 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 the thermal conductivity coefficient λ_D ³⁾	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.034	
Design thermal conductivity λ_y ⁴⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.036	
Specific heat capacity c_a	[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_f	[°C]	DIN 4102 part 17	≥ 1000	
Hydrothermal properties				
Water vapour diffusion resistance factor μ	[-]	EN 13162+A1	1	Declared value for water vapour diffusion resistance factor MU1
Other properties				
Density	[kg·m ⁻³]	EN 1602	75	

¹⁾ Whichever gives the greatest numerical tolerance.

²⁾ Whichever gives the smallest numerical tolerance.

³⁾ Declared values were set under the following conditions (reference temperature 10 °C, humidity u_{dry} which is reached by drying) according EN ISO 10456.

⁴⁾ It is 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.

RELATED DOCUMENTS

- Declaration of Performance CZ0001-008
- Environmental Product Declaration
- ISO 9001, ISO 14001, OHSAS 18001, ISO 50001

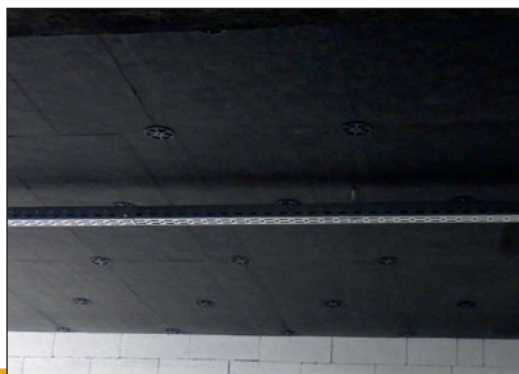
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Parameter	Unit	Methodology	Value	Designation code
Acoustic properties ⁵⁾				
The practical sound absorption coefficient α_p	[-]	Declaration according to EN 13162+A1	Declared level of practical sound absorption coefficient	AP
		Declaration according to EN ISO 11654		
		Measurement according to EN ISO 354		
	Frequency	125 Hz	250 Hz	500 Hz
	Thickness	40 mm	60 mm	80 mm
Weighted sound absorption coefficient α_w Noise Reduction Coefficient NRC	[-]	Declaration according to EN ISO 11654 (for NRC according ASTM C423)	Declared level of weighted sound absorption coefficient	AW
		Single number value		
		Thickness		
	40 mm	60 mm	80 mm	100 mm
	100 mm	125 Hz	250 Hz	500 Hz
Specific air flow resistivity r	[mm] [kPa·s·m ⁻²]	Declaration according to EN 13162+A1	Level of air flow resistivity	AFr
		Measurement according to EN 29053		

⁵⁾ Informative non-declared value beyond scope of CPR, obtained by concrete tests.



Example of product application Isover MAXIL NT