

Isover T-i

Stone wool insulation



TECHNICAL SPECIFICATION

Insulating slabs made of Isover mineral wool. The production is based on the defibring method of the mineral 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 have to be protected suitably (vapour-proof foil, waterproofing, flat roof bearing layer, etc.)



APPLICATION

Isover T-i slabs are designed for thermal, acoustic and fire insulation of flat roofs. They can be used as a bottom or middle layer into multiple layer systems. It is necessary to combine them with a covering top layer from Isover S, S-i. For safe rainwater drainage, there is a suitable combination with gravity flow systems Isover SD and Isover DK as well as with Isover AK attic wedge blocks, which help to change the horizontal direction of the waterproofing to the perpendicular direction.

PACKAGING, TRANSPORT, WAREHOUSING

Isover T-i insulating slabs are packed into PE film to a height of up to 1.3 m. The slabs must be transported in covered vehicles under conditions that keep them dry and prevent other damage. They should be stored flat in a sheltered space up to a maximum layer height of 2 m.

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.

DIMENSIONS AND PACKAGING

Thickness [mm]	Length × width [mm]	Transport packaging [m ³]	Volume per package [m ²]	Declared thermal resistance R ₀ [m ² ·K·W ⁻¹]
30	2 000 × 1 200	3.024	100.8	0.80
40	2 000 × 1 200	2.880	72.0	1.05
50	2 000 × 1 200	2.880	57.6	1.35
60	2 000 × 1 200	2.880	48.0	1.60
70	2 000 × 1 200	3.024	43.2	1.85
80	2 000 × 1 200	3.070	38.4	2.15
100	2 000 × 1 200	3.120	31.2	2.70
120	2 000 × 1 200	2.880	24.0	3.20
140	2 000 × 1 200	3.024	19.2	3.75
160	2 000 × 1 200	3.024	19.2	4.30

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	-1% or -1 mm ¹⁾ and +3 mm	Class of thickness tolerances	T5
Deviation from squareness of the edge on length and width <i>S_e</i>	[mm·m ⁻¹]	EN 824	5		
Deviation from flatness <i>S_{max}</i>	[mm]	EN 825	6		
Thermal technical properties					
Declared value of thermal conductivity coefficient λ_0 ²⁾	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.037		
Design thermal conductivity λ_0 ³⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.038		
Specific heat capacity <i>c_p</i>	[J·kg ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	800		
Mechanical properties					
Compressive stress at 10% deformation σ_{10}	[kPa]	Declaration according to EN 826	40	Declared level of compressive stress at 10% deformation	CS(10)40
Tensile strength perpendicular to faces σ_m	[kPa]	Declaration according to EN 1607	5	Declared level of tensile strength perpendicular to faces	TR5
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_t</i>	[°C]	DIN 4102 part 17	≥ 1000		
Hydrothermal properties					
Short-term water absorption <i>W_p</i>	[kg·m ⁻²]	Declaration according to EN 13162+A1 Measurement according to EN 1609	1	Declared level for short-term water absorption	WS
Long-term water absorption by partial immersion <i>W_{lp}</i>	[kg·m ⁻²]	Declaration according to EN 13162+A1 Measurement according to EN 12087	3	Declared level for long-term water absorption by partial immersion	WL(P)
Water vapour diffusion resistance factor μ	[-]	Declaration according to EN 13162+A1 Measurement according to EN 12086	1	Declared value for water vapour diffusion resistance factor	MU1
Other properties					
Density ⁴⁾	[kg·m ⁻³]	EN 1602	110-150		

¹⁾ Value with greatest numerical tolerance.

²⁾ Declared values were set under the following conditions: (reference temperature 10 °C, humidity u_{dry} reached by drying) according to EN ISO 10456.

³⁾ 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.

⁴⁾ The apparent density is only informative in connection with logistics and static needs.

RELATED DOCUMENTS

- Declaration of Performance
- Certificate of constancy of performance
- Environmental Product Declaration (EPD)
- ISO 9001, ISO 14001, ISO 45001, ISO 50001

7/9/2023 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.