

Isover T-N

Stone wool insulation



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 should be protected in the heavy floating floor construction by a separating PE foil when the "wet process" is used.



APPLICATION

Isover T-N slabs are suitable for improving of impact and airborne sound reduction in heavy floating floors, especially with anhydrite screeding, or for locations with higher imposed load. (Residential buildings, offices, classrooms, lecture halls). The imposed load can not exceed 4 kN/m².

PACKAGING, TRANSPORT, WAREHOUSING

Isover N 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. They should be stored flat in sheltered space to 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]	Volume per package			Quantity per pallet [m ²]	Declared thermal resistance R _D [m ² ·K·W ⁻¹]
		[pcs]	[m ²]	[m ³]		
25	1200 × 600	8	5.76	0.14	69.12	0.65
30	1200 × 600	7	5.04	0.15	60.48	0.80
40	1200 × 600	6	4.32	0.17	43.20	1.10
50	1200 × 600	4	2.88	0.14	34.56	1.35

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	-5 % or -1 mm ¹⁾ and +15 % or +3 mm ¹⁾	Class of thickness tolerances	T6
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 <i>λ_b</i> ²⁾	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.036		
Design thermal conductivity <i>λ_b</i> ³⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0,037		
Specific heat capacity <i>c_a</i>	[J·kg ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	800		
Mechanical properties					
Compressibility <i>c</i>	[mm]	Declaration according to EN 13162+A1	≤ 3	Declared level for compressibility Declared level of tensile strength perpendicular to faces	CP3
		Measurement according to ČSN 12431			

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TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code			
Vlhkostní vlastnosti							
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			
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				
Acoustic properties ⁴⁾							
Dynamic stiffness s'	[mm]	Declaration according to EN 13162+A1	Declared value of dynamic rigidity				SD
			25	30	40	50	
	[MN·m ⁻³]	Měřeno dle ČSN ISO 9052-1 (idt. EN 29052-1)	25.0	20.4	19.5	14.6	
Additional acoustic properties							
	[mm]		25	30	40	50	
Decrease the level of impact noise ΔL_w ⁵⁾	[dB]	EN ISO 717-2	24	25	26	28	
Compressibility K	[%]	ČSN 730532	2.6	2.6	1.7	1.6	
Elasticity ϵ	[%]	ČSN 730532	87.4	86.9	82.3	86.5	
Loss factor η	[-]	ČSN ISO 9052-1	0.09	0.10	0.08	0.08	
Other properties							
Density	[kg·m ⁻³]	EN 1602	125-140				

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⁾ Informative non-declared value beyond the scope of CPR, obtained by specific tests.

⁵⁾ Determined by a calculation made for a heavy floating floor upon a standard 120 mm reinforced concrete ceiling slab and 40 mm anhydrite screeding.

RELATED DOCUMENTS

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

More about the product

www.isover.cz/en/products/isover-t-n



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