

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	1 200 × 600	8	5.76	0.14	69.12	0.65
30	1 200 × 600	7	5.04	0.15	60.48	0.80
40	1 200 × 600	6	4.32	0.17	43.20	1.10
50	1 200 × 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 λ _g ²⁾	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.036		
Design thermal conductivity λ _g ³⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.037		
Specific heat capacity <i>c_v</i>	[J·kg ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	800		
Mechanical properties					
Compressibility <i>c</i>	[mm]	Declaration according to EN 13162+A1 Measurement according to ČSN 12431	≤ 3	Declared level for compressibility Declared level of tensile strength perpendicular to faces	CP3

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 properties⁴⁾								
Dynamic stiffness s'	[mm]	Declaration according to EN 13162+A1	Declared value of dynamic rigidity				SD	
	[MN·m ⁻²]	Měřeno dle ČSN ISO 9052-1 (idt. EN 29052-1)	25	30	40	50		
			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					
Environmental properties/impacts								
Volume of pre-consumer recycled content for production ⁶⁾	[%]	EN 15804+A1, ČSN ISO 14025	65.5-72.5					
Volume of post-consumer recycled content for production ⁶⁾	[%]	EN 15804+A1, ČSN ISO 14025	0					
Non-hazardous waste disposed ⁷⁾	[kg /FU ⁸⁾]	EN 15804+A1, ČSN ISO 14025	0.775		NHWD			
Total use of non-renewable primary energy resources	[MJ /FU]	EN 15804+A1, ČSN ISO 14025	39.8		PENRT			
Global warming potential	[kg CO ₂ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	3.93		GWP			
Ozone depletion	[kg CFC 11 ekv. /FU]	EN 15804+A1, ČSN ISO 14025	2.07E-07		ODP			
Acidification potential	[kg SO ₂ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.028		AP			
Eutrophication potential	[kg PO ₄ ³⁻ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.0026		EP			
Photochemical ozone creation	[kg C ₂ H ₄ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.00407		POPC			
Abiotic depletion potential for non-fossil resources	[kg Sb ekv. /FU]	ČSN EN 15804+A1, ČSN ISO 14025	7.41E-08		ADP-elements			
Abiotic depletion potential for fossil resources	[MJ (Calorific value) /FU]	ČSN EN 15804+A1, ČSN ISO 14025	37		ADP-fossil fuels			

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.

⁶⁾ According to EN ISO 14021, part 7.8 - Recycled content.

⁷⁾ In this case it is standard mixed waste.

⁸⁾ FU = functional unit (1 m² of insulation at a thickness of 25 mm for life cycle phases A1-A3).

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



10/1/2024 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.