

Isover T-P

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, layers of the floor construction, etc.)



APPLICATION

Precisely cut slabs used in light and heavy floating floors in combination with Isover N/PP insulating strips. There are high quality demands in case of underlay surface of the dry floating floors on which the precise cut slabs are laid. Thanks to its high accuracy and minimum compressibility these slabs are applicable even in the thin anhydrite floors. Maximum imposed load for this insulation is 5 kN/m².

PACKAGING, TRANSPORT, WAREHOUSING

Isover T-P 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]		
20	1200 × 600	10	7.20	0.14	86.40	0.50
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	1.05
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	0 mm and +10 % or +2 mm ¹⁾	Class of thickness tolerances T7
Deviation from squareness of the edge on length and width <i>S_b</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 $\lambda_D^{2)}$	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.037	
Design thermal conductivity $\lambda_u^{3)}$	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.038	
Specific heat capacity <i>c_d</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	≤ 2	Declared level for compressibility Declared level of tensile strength perpendicular to faces CP2
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
The point load at a given deformation <i>F_p</i>	[N]	Declaration according to EN 12430	400	Declared level of point load for 5 mm deformation PL(5)400

TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code				
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	[-]	Declaration according to EN 13162+A1 Measurement according to EN 12086	1	Declared value for water vapour diffusion resistance factor MU1				
Acoustic properties⁴⁾								
Dynamic stiffness s'	[mm]	Declaration according to EN 13162+A1	Declared value of dynamic rigidity					SD
			20	25	30	40	50	
	[MN·m ⁻³]	Measurement according to ČSN ISO 9052-1 (idt. EN 29052-1)	30.9	26.7	25.6	20.8	19.1	
Additional acoustic properties								
	[mm]		20	25	30	40	50	
Decrease the level of impact noise ΔL_w ⁵⁾	[dB]	EN ISO 717-2	-	22	-	-	-	
Compressibility K	[%]	ČSN 730532	2.8	1.9	1.7	1.7	1.1	
Elasticity ϵ	[%]	ČSN 730532	88.7	83.5	85.9	87.1	85.4	
Loss factor η	[-]	ČSN ISO 9052-1	0.11	0.09	0.09	0.09	0.09	
Other properties								
Density	[kg·m ⁻³]	EN 1602	145-155					
Environmental properties/impacts								
Volume of pre-consumer recycled content for production ⁶⁾	[%]	ČSN ISO 14021	65.5-70.5					
Volume of post-consumer recycled content for production ⁶⁾	[%]	ČSN ISO 14021	0					
Non-hazardous waste disposed ⁷⁾	[kg /FU ⁸⁾]	EN 15804+A1, ČSN ISO 14025	0.884	NHWD				
Total use of non-renewable primary energy resources	[MJ /FU]	EN 15804+A1, ČSN ISO 14025	45.3	PENRT				
Global warming potential	[kg CO ₂ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	4.51	GWP				
Ozone depletion	[kg CFC 11 ekv. /FU]	EN 15804+A1, ČSN ISO 14025	2.36E-07	ODP				
Acidification potential	[kg SO ₂ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.0321	AP				
Eutrophication potential	[kg PO ₄ ³⁻ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.00297	EP				
Photochemical ozone creation	[kg C ₂ H ₄ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.00463	POPC				
Abiotic depletion potential for non-fossil resources	[kg Sb ekv. /FU]	EN 15804+A1, ČSN ISO 14025	8.31E-08	ADP-elements				
Abiotic depletion potential for fossil resources	[MJ (Calorific value) /FU]	EN 15804+A1, ČSN ISO 14025	42.1	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 CZ0001-011
- Certificate of constancy of performance
- Environmental Product Declaration
- ISO 9001, ISO 14001, ISO 45001, ISO 50001



21/2/2023 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.