

Isover UNI

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 should be protected suitably against the weather (outer cassette sheathing, diffusion and vapour-proof foil).



APPLICATION

Isover Uni slabs are suitable for unloaded insulation of outer walls (ventilated facades under the cladding with insulant inserted into cassettes or frames), insulation of pitched roofs, ceilings, drop ceilings and other light sandwich constructions. The material is suitable for fire protection partition walls where a density $\geq 40 \text{ kg}\cdot\text{m}^{-3}$ is required.

PACKAGING, TRANSPORT, WAREHOUSING

Isover Uni insulation slabs are packed into PE film with package height up to 0.5 m. The slabs must be transported in covered vehicles under conditions that keep them dry and prevent other damage. 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 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.
- Dimensional stability during temperature change.

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]		
40	1200 × 600	12	8.64	0.35	198.72	1.10
50	1200 × 600	10	7.20	0.36	165.60	1.40
60	1200 × 600	8	5.76	0.35	132.48	1.70
80	1200 × 600	6	4.32	0.35	99.36	2.25
100	1200 × 600	5	3.60	0.36	82.80	2.85
120	1200 × 600	4	2.88	0.35	66.24	3.40
140	1200 × 600	3	2.16	0.30	56.16	4.00
150	1200 × 600	3	2.16	0.33	51.84	4.25
160	1200 × 600	3	2.16	0.35	49.68	4.55
180	1200 × 600	2	1.44	0.26	41.76	5.10
200	1200 × 600	2	1.44	0.29	37.44	5.70

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	-3% or -3 mm ¹⁾ and +5 mm or +5 mm ²⁾	Class of thickness tolerances T4
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	
Relative change in length $\Delta\epsilon_l$, in width $\Delta\epsilon_b$, in thickness $\Delta\epsilon_d$	[%]	EN 1604	1	Dimensional stability under the specified temperature and humidity conditions DS (70,-)

TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code			
Thermal technical properties							
Declared value of thermal conductivity coefficient λ_b ³⁾	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.035				
Design thermal conductivity λ_d ⁴⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.038				
Specific heat capacity c_d	[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	[-]	Declaration according to EN 13162+A1	1	Declared value for water vapour diffusion resistance factor MU1			
Other properties							
Density	[kg·m ⁻³]	EN 1602	40				
Acoustic properties⁵⁾							
Practical sound absorption coefficient α_p	[-]	EN 13162+A1	Level of practical sound absorption coefficient				AP
		EN ISO 11654					
		Measurement according to EN ISO 354					
	Frequency	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
	Thickness	40 mm	0.15	0.40	0.85	0.95	0.95
	60 mm	0.25	0.70	1.00	1.00	1.00	1.00
	80 mm	0.35	0.95	1.00	1.00	1.00	1.00
	100 mm	0.45	1.00	1.00	1.00	1.00	1.00
Weighted sound absorption coefficient α_w	[-]	EN ISO 11654 (for NRC according to ASTM C423)	Level of weighted sound absorption coefficient				AW
		Single number value	α_w	α_{str}	NCR		
Sound Absorption Average α_{str}			40 mm	0.70 (MH)	0.79	0.80	
Noise reduction coefficient NRC	Thickness		60 mm	1.00	0.93	0.95	
			80 mm	1.00	1.01	1.00	
			100 mm	1.00	1.05	1.05	
Specific air flow resistivity r	[kPa·s·m ⁻²]	EN 13162+A1	Level of air flow resistivity				AFr
		Measurement according to EN ISO 9053-1	12.3				

¹⁾ Value with greatest numerical tolerance.

²⁾ Value with lowest numerical tolerance.

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

⁴⁾ 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.

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

RELATED DOCUMENTS

- Declaration of Performance
- Environmental Product Declaration
- ISO 9001, ISO 14001, ISO 45001

More about the product

www.isover.cz/en/products/isover-uni



1/11/2024 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.