



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 l	[% , mm]	EN 822	±2%		
Width b	[% , mm]	EN 822	±1,5%		
Thickness d	[% , 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 S_b	[mm·m ⁻¹]	EN 824	5		
Deviation from flatness S_{max}	[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_D 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 properties ⁵⁾									
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	1.00
			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 Sound Absorption Average α_{av} Noise reduction coefficient NRC	[-]	EN ISO 11654 (for NRC according to ASTM C423)			Level of weighted sound absorption coefficient			AW	
		Single number value	α_w		α_{av}		NCR		
	Thickness		40 mm	0.70 (MH)		0.79		0.80	
			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 fl ow 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.