



Isover Unirol Profi

Mineral fibreglass insulation

TECHNICAL SPECIFICATION

Rolled insulation mats made of Isover fibreglass wool are covered with hydrophobic fibres on the entire surface. The production method is based on the fibering of glass melt and other additives and ingredients. The mineral fibres produced are processed into the final mat shape on the production line. The insulation in the construction should be protected (vapour-proof foil, suitable protection against dust setting in case of loosely laid insulation, additional construction layers). The insulation is not harmful to the environment or public health, it is resistant to moulds, fungi and wood-destroying insects.



APPLICATION

The fibreglass insulation mats with excellent heat-insulating properties are used as thermal and acoustic insulation of sloping roofs and ceilings.

Superior energy saving type of insulation $\lambda_D = 0,033 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$.

PACKAGING, TRANSPORT, WAREHOUSING

The Isover rolls are strongly compressed within the package and wrapped with PE foil (1 MPS = 24 Rolls, volume 4,09 m³). After unpacking, the rolls quickly acquire full thickness. Compressing makes manipulation easier and saves space in warehouses, during transport and on the construction site. Rolls have to be transported in covered vehicles under conditions preventing them from getting wet or being degraded. The products are stored indoors or outdoors depending on the conditions specified in the current Isover price list.

BENEFITS

- Fire resistance.
- Very good thermal insulation performance.
- 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.
- The product's surface is lined, making for easier and faster cutting.

DIMENSIONS AND PACKAGING

Thickness [mm]	Length x 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]		
50	9 500 × 1200	1	11.40	0.57	273.60	1.50
60	8 000 × 1200	1	9.60	0.58	230.40	1.80
80	6 000 × 1200	1	7.20	0.58	172.80	2.40
100	4 500 × 1200	1	5.40	0.54	129.60	3.00
120	4 000 × 1200	1	4.80	0.58	115.20	3.60
140	3 300 × 1200	1	3.96	0.55	95.04	4.20
160	2 900 × 1200	1	3.48	0.56	83.52	4.80
180	2 600 × 1200	1	3.12	0.56	74.88	5.45
200	2 400 × 1200	1	2.88	0.58	69.12	6.05
220	2 300 × 1200	1	2.76	0.61	66.24	6.65

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 -5 mm ¹⁾ and +15 % or +15 mm ²⁾	Class of thickness tolerances T2
Deviation from squareness of the edge on length and width S_e	[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(23,90)

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Parameter	Unit	Methodology	Value	Designation code				
Thermal technical properties								
Declared value of thermal conductivity coefficient λ_p ³⁾	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.033					
Design thermal conductivity λ_d ⁴⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.036					
Specific heat capacity c_d	[J·kg ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	840					
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	21					
Acoustic properties⁵⁾								
Practical sound absorption coefficient α_p	[-]	Declaration according to EN 13162+A1 Declaration according to EN ISO 11654 Measurement according to EN ISO 354	Level of practical sound absorption coefficient				AP	
		Frequency	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
		60 mm	0.40	0.90	0.95	0.95	1.00	1.00
		80 mm	0.55	1.00	1.00	1.00	1.00	1.00
100 mm	1.00	1.00	1.00	1.00	1.00	1.00		
Weighted sound absorption coefficient α_w Sound Absorption Average α_{str} Noise reduction coefficient NRC	[-]	EN ISO 11654 (for NRC according ASTM C423)	Level of weighted sound absorption coefficient				AW	
		Single number value	α_w	α_{str}	NCR			
		60 mm	1.00	0.78	0.95			
		80 mm	1.00	0.96	1.00			
100 mm	1.00	1.00	1.00					
Specific air flow resistivity r	[kPa·s·m ⁻²]	Declaration according to EN 13162+A1 Measurement according to EN ISO 9053-1	Level of air flow resistivity				AFr	
			≥ 5					

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
- ISO 9001, ISO 14001, ISO 45001

More about the product

www.isover.cz/en/products/isover-unirol-profi



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