

Isover EVO 4+

Mineral fibreglass insulation

TECHNICAL SPECIFICATION

Insulating roll made with glass wool ISOVER 4+. The mineral fibres produced are processed into the final mat shape on the production line. Made in Italy with at least 80% of recycled glass and with an exclusive, patented binder, that ensures maximum indoor air quality. The insulation is not harmful to the environment or public health, and it is resistant to moulds, fungi and wood-destroying insects.

The insulation in the construction should be properly protected (vapour-proof foil, suitable protection against dust setting in case of loosely laid insulation, additional construction layers).

APPLICATION

The fibreglass insulation mats with excellent heat-insulating properties of Isover EVO are intended for thermal and acoustic insulation of partition walls, sloping roofs, ceilings and soffits. The product is not suitable for ventilated facades and exterior heat insulations.

DIMENSIONS AND PACKAGING

Thickness	[mm]	TWIN 100/50	TWIN 120/60	TWIN 160/80	100	120	140	160	180	200
Length x width	[mm]	5500 x 625	4600 x 625	3500 x 625	5500 x 1200	4600 x 1200	4000 x 1200	3500 x 1200	3200 x 1200	2800 x 1200
Volume per package	[m ³]	6.88/13.75	5.75/11.50	4.38/8.75	6.60	5.52	4.80	4.20	3.84	3.36
Quantity per palette	[m ²]	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Declared thermal resistance R _D	[m ² ·K·W ⁻¹]	165/330	138/276	105/210	158.40	132.48	115.20	100.80	92.16	80.64
Declared thermal resistance R _D	[m ² ·K·W ⁻¹]	2.85/1.40	3.40/1.70	4.55/2.25	2.85	3.40	4.00	4.55	5.10	5.70

Note: TWIN 100/50 - two rolls per package, of identical thickness 50 mm.

PACKAGING, TRANSPORT, WAREHOUSING

The insulating rolled strips Isover EVO are compressed and packed in PE foil (IMPS = 24 rolls, volume of 4.56 m³). The material is extremely compressed in the package, once unpacked it quickly attains its full thickness. The compression facilitates handling, saves storage area as well as space on the construction site. The rolls have to be transported in covered vehicles under conditions preventing their wetting or other degradation. The products are stored indoors or outdoors depending on the conditions specified in the current ISOVER price list.

BENEFITS

- fire-resistant
- 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 insect
- easy workability - can be cut, drilled into, etc.
- dimensional stability during temperature change



TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code			
Geometric shape							
Length / Width b	[%, mm]	EN 822	±2 %				
Thickness d	[%, mm]	EN 823	±1.5 %				
Deviation from squareness of the edge on length and width S _b	[mm·m ⁻¹]	EN 824	-5 % or -5 mm ¹⁾ and +15 mm or +15 mm ²⁾	Class of thickness tolerances			
Deviation from flatness S _{max}	[mm]	EN 825	5				
Relative change in length Δε _l in width Δε _b in thickness Δε _d	[%]	EN 1604	6	Dimensional stability under the specified temperature and humidity conditions			
Thermal technical properties							
Declared value of the 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]	CSN 73 0540-3	0.038				
Specific heat capacity c _d	[J·kg ⁻¹ ·K ⁻¹]	CSN 73 0540-3	840				
Fire safety properties							
Reaction to fire class	[-]	Declaration according to EN 13501-I+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	[-]	EN 13162+A1	1	Declared value for water vapour diffusion resistance factor			
Other properties							
Density	[kg·m ⁻³]	EN 1602	19.5				
Acoustic properties							
The practical sound absorption coefficient α _p	[-]	Declaration according to EN 13162+A1		Declared level of practical sound absorption coefficient			
		Declaration according to EN ISO 11654					
		Measurement according to EN ISO 354					
		Frequency	125 Hz		250 Hz	500 Hz	1000 Hz
Thickness	60 mm	0.35	0.80	1.00	1.00	1.00	1.00
	80 mm	0.55	1.00	1.00	0.95	1.00	1.00
	100 mm	0.60	1.00	1.00	1.00	1.00	1.00
Weighted sound absorption coefficient α _w	[-]	Declaration according to EN ISO 11654 (for NRC according ASTM C423)		Declared level of weighted sound absorption coefficient			
		Measurement according to EN ISO 354					
Sound Absorption Average α _{avr}		Single number value	α _w	α _{avr}	NCR		
Noise Reduction Coefficient NRC	Thickness	60 mm	1.00	0.83	0.95		
		80 mm	1.00	0.85	1.00		
		100 mm	1.00	0.94	1.00		
Specific air flow resistivity r	[kPa·s·m ⁻²]	Declaration according to EN 13162+A1		Level of air flow resistivity		AFr	
		Measurement according to EN 29053		≥ 5			

¹⁾ Whichever gives the greatest numerical tolerance.

²⁾ Whichever gives the smallest numerical tolerance.

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

⁴⁾ It is 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.

RELATED DOCUMENTS

- Declaration of Performance 296 EVO

1. 6. 2018 The information is valid up to date of publishing. The manufacturer reserves right to change the data.