ISOVER SAINT-GOBAIN
Assurance in insulation

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.

PACKAGING, TRANSPORT, WAREHOUSING

The insulating rolled strips ISOVER Evo are compressed and packed in PE foil (1MPS = 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

DIMENSIONS AND PACKAGING

Thickness	[mm]	**TWIN** 100/50	**TWIN** 120/60	**TWIN** 160/80	100	120	140	160	180	200
Length × width	[mm]	5500 × 625	4600 × 625	3500 × 625	5500 × 1200	4600 × 1200	4000 × 1200	3500 × 1200	3200 × 1200	2800 × 1200
Volume per package	[pcs]	4	4	4	1	1	1	1	1	1
	[m²]	6.88/13.75	5.75/11.50	4.38/8.75	6.60	5.52	4.80	4.20	3.84	3.36
	[m³]	0.688	0.690	0.700	0.660	0.662	0.672	0.672	0.691	0.672
Quantity per palette	[m²]	165/330	138/276	105/210	158.40	132.48	115.20	100.80	92.16	80.64
Declared thermal resistance R_D	[m²·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.

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	-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_b	[mm·m⁻¹]	EN 824	5		
Deviation from flatness S_{max}	[mm]	EN 825	6		
Relative change in length $\Delta\varepsilon_l$, in width $\Delta\varepsilon_b$, in thickness $\Delta\varepsilon_d$	[%]	EN 1604	1	Dimensional stability under the specified temperature and humidity conditions	DS (23,90)
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_v[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	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_t	[°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	MU1
Other properties					
Density	[kg·m⁻³]	EN 1602	19.5		
Acoustic properties[5]					
The practical sound absorption coefficient α_p	[-]	Declaration according to EN 13162+A1 Declaration according to EN ISO 11654 Measurement according to EN ISO 354	Declared level of practical sound absorption coefficient		AP

Frequency		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 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		AW
Sound Absorption Average $\alpha_{stř}$	Single number value		α_w	$\alpha_{stř}$	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*		Declaration according to EN 13162+A1	Level of air flow resistivity		AFr
	[kPa·s·m⁻²]	Measurement according to EN ISO 9053-1	≥ 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.
[5] Informative non-declared value beyond scope of CPR, obtained by concrete tests.

RELATED DOCUMENTS

- Declaration of Performance 296 EVO
- Environmental Product Declaration
- ISO 9001, ISO 14001, ISO 45001

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