

Isover Merino

Mineral fibreglass insulation



TECHNICAL SPECIFICATION

Insulation slabs made of Isover fibreglass wool. Production is based on the defibring of the melt of glass and other additives and ingredients. The mineral fibres that are produced are then shaped into slabs on the production line. The fibres are made water-repellent over their entire surface. Slabs under construction have to be suitably protected (steam protection foil, protection against dust, other layers of construction).



APPLICATION

Isover Merino slabs are flexible and have a stable shape but cannot bear loads. They are suitable for any thermal, acoustic, no-load insulation, especially for double construction, ceiling fillings, hanging false ceilings, and cavities (improving the acoustic absorption of the construction, assembled floors with posts), and for ventilated façades with frame insulation (maximum two storeys, using timber studs with a 300-mm clearance).

PACKAGING, TRANSPORT, WAREHOUSING

Isover Merino slabs are packaged in PE film. They come in MPS packs (IMPS = 12 packages). Loose packages can be supplied upon agreement with the manufacturer. The slabs must be transported in covered vehicles under conditions that keep them dry and prevent other types of 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 _b [m ² ·K·W ⁻¹]
		[pcs]	[m ²]	[m ³]		
50	1200 × 625	20	15.00	0.34	240	1.25
60	1200 × 625	16	12.00	0.34	240	1.50
80	1200 × 625	12	9.00	0.34	180	2.05
100	1200 × 625	10	7.50	0.34	150	2.55
120*	1200 × 625	8	6.00	0.34	120	3.05
140*	1200 × 625	6	4.50	0.34	90	3.55

* Consult the producer for terms of delivery.

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 mm or +15 mm ²⁾	Class of thickness tolerances T5
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(23/90)

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Parameter	Unit	Methodology	Value	Designation code				
Thermal technical properties								
Declared value of thermal conductivity coefficient $\lambda_p^{2)}$	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.039					
Design thermal conductivity $\lambda_d^{3)}$	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.042					
Specific heat capacity c_p	[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_m	[°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	14					
Acoustic properties⁵⁾								
Practical sound absorption coefficient α_p	[-]	Declaration according to EN 13162+A1	Declared level of practical sound absorption coefficient					AP
		Declaration according to EN ISO 11654						
		Measurement according to EN ISO 354						
	Frequency		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
	Thickness	20 mm	0.10	0.35	0.60	0.75	0.90	0.90
	In front of the wall, 60 mm	50 mm	0.25	0.60	0.90	1.00	1.00	1.00
		80 mm	0.45	0.75	1.00	1.00	1.00	1.00
	Thickness	20 mm	0.20	0.55	0.85	0.85	0.90	0.90
	In front of the wall, 150 mm	50 mm	0.40	0.75	1.00	1.00	1.00	1.00
		80 mm	0.65	1.00	1.00	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 29053	Level of air flow resistivity					AFr
Environmental properties/impacts								
Volume of pre-consumer recycled content for production ⁵⁾	[%]	ČSN ISO 14021	-					
Volume of post-consumer recycled content for production ⁵⁾	[%]	ČSN ISO 14021	-					
Non-hazardous waste disposed ⁶⁾	[kg /FU ⁷⁾]	EN 15804+A1, ČSN ISO 14025	0.497	NHWD				
Total use of non-renewable primary energy resources	[MJ /FU]	EN 15804+A1, ČSN ISO 14025	45.5	PENRT				
Global warming potential	[kg CO ₂ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	2.59	GWP				
Ozone depletion	[kg CFC 11 ekv. /FU]	EN 15804+A1, ČSN ISO 14025	7.15 E-08	ODP				
Acidification potential	[kg SO ₂ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.0258	AP				
Eutrophication potential	[kg PO ₄ ³⁻ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.0023	EP				
Photochemical ozone creation	[kg C ₂ H ₄ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.00684	POPC				
Abiotic depletion potential for non-fossil resources	[kg Sb ekv. /FU]	EN 15804+A1, ČSN ISO 14025	1.56 E-06	ADP-elements				
Abiotic depletion potential for fossil resources	[MJ (Calorific value) /FU]	EN 15804+A1, ČSN ISO 14025	50.4	ADP-fossil fuels				

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.

⁶⁾ In this case it is standard mixed waste.

⁷⁾ FU = functional unit (1 m² of insulation at a thickness of 100 mm for life cycle phases A1-A3).

RELATED DOCUMENTS

- Declaration of Performance
- Environmental Product Declaration
- ISO 9001, ISO 14001, ISO 45001, ISO 50001



3/7/2023 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.