



Isover EPS GreyWall Plus

Grey facade boards with increased insulation effect

TECHNICAL SPECIFICATION

Isover EPS GreyWall Plus insulation boards are the latest type of EPS boards using nanotechnology for professional insulation. Millions of insulator cells with trace graphite additives effectively reflect heat back to its source, significantly improving insulation properties. These boards are manufactured using the latest CFC and HCFC-free (known as CFCs) technologies. Modern technology ensures consistent quality and minimal energy consumption in production, giving the boards an excellent price/performance ratio. All Isovver EPS boards are manufactured in a flame retardant design with enhanced fire safety.



APPLICATION

Isover EPS GreyWall Plus insulation boards are designed especially for ETICS facade insulation systems with the highest demands on insulation efficiency, i.e. for insulation layers of energy-efficient buildings (low-energy and passive houses) with common insulation thicknesses of 200-500 mm. At the same time, Isovver EPS GreyWall Plus insulators are used for high-quality insulation of existing buildings. When applying, it is necessary to follow the technological procedure of the specific insulation system, including, for example, screening with nets or the use of specific adhesives and sealants.

PACKAGING, TRANSPORT, WAREHOUSING

EPS Isovver insulation boards of the size 1000 × 500 mm are packed in PE foil in packages of maximum height 500 mm. Non-standard sizes, e.g. 1000 × 2000 mm, 1000 × 2500 mm are taped. The boards must be transported and stored under conditions that prevent their deterioration. Do not store in direct sunlight.

BENEFITS

- Excellent thermal insulation properties.
- Excellent mechanical properties.
- Also suitable for ETICS tl. 200-350mm.
- Minimum weight.
- Easy processing.
- Long life.
- Ecological and health safety.
- Permanent moisture resistance.
- Biological neutrality.
- Economic advantage.

EDGES

Boards are equipped with a straight edge as standard.

DIMENSIONS AND PACKAGING

Thickness [mm]	Length × width [mm]	Volume per package			Declared thermal resistance R_0 [m ² ·K·W ⁻¹]
		[pcs]	[m ²]	[m ³]	
20	1 000 × 500	25	12.5	0.250	0.60
30	1 000 × 500	16	8.0	0.240	0.95
40	1 000 × 500	12	6.0	0.240	1.25
50	1 000 × 500	10	5.0	0.250	1.60
60	1 000 × 500	8	4.0	0.240	1.90
80	1 000 × 500	6	3.0	0.240	2.55
100	1 000 × 500	5	2.5	0.250	3.20
120	1 000 × 500	4	2.0	0.240	3.85
140	1 000 × 500	3	1.5	0.210	4.50
150	1 000 × 500	3	1.5	0.225	4.80
160	1 000 × 500	3	1.5	0.240	5.15
180	1 000 × 500	2	1.0	0.180	5.80
200	1 000 × 500	2	1.0	0.200	6.45
220	1 000 × 500	2	1.0	0.220	7.05
240	1 000 × 500	2	1.0	0.240	7.70
260	1 000 × 500	1	0.5	0.130	8.35
280	1 000 × 500	1	0.5	0.140	9.00
300	1 000 × 500	1	0.5	0.150	9.65

Upon agreement, products can also be delivered in other thicknesses and dimensions.

Isover EPS GreyWall Plus

Grey facade boards with increased insulation effect

TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code	
Geometric shape					
Length tolerance	[% , mm]	EN 822	±2 mm	Class of length tolerances	L2
Width tolerance	[% , mm]	EN 822	±2 mm	Class of width tolerances	W2
Thickness tolerance	[% , mm]	EN 823	±1 mm	Class of thickness tolerances	T1
Deviation from squareness of the edge on length and width S_b	[mm·m ⁻¹]	EN 824	±2	Class of squareness on length and width	S2
Deviation from flatness S_{max}	[mm]	EN 825	3	Class of flatness	P3
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 (70,90)1
			±0.2	Class of dimensional stability under constant normal laboratory conditions	DS(N)2
			1	Level of dimensional stability under specified temperature and humidity conditions	DS (70,-)1
Thermal technical properties					
Declared value of thermal conductivity coefficient λ_D ¹⁾	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13163+A1 Measurement according EN 12667	0.031		
Design thermal conductivity λ_D ²⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.032		
Specific heat capacity c_d	[J·kg ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	1270		
Mechanical properties					
Tensile strength perpendicular to faces σ_{nt}	[kPa]	EN 1607	100	Declared level of tensile strength perpendicular to faces	TR100
Bending strength σ_b	[kPa]	EN 12089	115	Level of bending strength	BS115
Modulus of elasticity in shear G_{Mi}	[kPa]	EN 12090	1000	The value of the modulus of shear strength	G _{Mi}
Fire safety properties*					
Reaction to fire class	[-]	EN 13501-1+A1	E*		
Maximum temperature for use	[°C]		70		
Hydrothermal properties					
Long-term water absorption by partial immersion W_{lp}	[kg·m ⁻²]	Declaration according toEN 13163+A1 Measurement according EN 12087	0.5	Declared level for long-term water absorption by partial immersion	WL(P)0,5
Long term water absorption by total immersion W_{lt}	[%]	EN 12087	5	Level of long-term water absorption by total immersion	WL(T)5
Water vapour diffusion resistance factor μ	[-]	EN 13163+A1	20-40	Value for water vapour diffusion resistance factor	MU40
Other properties					
Density	[kg·m ⁻³]	EN 1602	13.5-15**		

¹⁾ Declared values were set under the following conditions: (reference temperature 10 °C, humidity u_{dry} reached by drying) according to EN ISO 10456.

²⁾ 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.

* Self-extinguishing properties of EPS are ensured using a polymer-based flame retardant. The insulation boards do not contain HBCDD. Fire safety of buildings has to be classified for complete structures and systems, the EPS is not used without fire-resistant coatings.

** The specific density is indicative only and is especially intended for the statics and fire load calculation.

Note: The specific application must meet general requirements of Saint-Gobain Construction Products CZ, Ltd., Isover, technical materials, valid technical norms, and the specific project.

RELATED DOCUMENTS

- Declaration of Performance
- Environmental Product Declaration (EPD)
- Quality class A
- ISO 9001, ISO 14001, ISO 45001, ISO 50001
- Technical information – Isover EPS HBCDD free

More about the product

www.isover.cz/en/products/isover-eps-greywall-plus



11/8/2023 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.