SVT code: 435
Product identification code: CZ0004-003
Specification code:
EPS-EN 13 163-T2-L3-W3-S5-P10-BS150-CS(10)100-DS (N)2-DS(70,-)1-DLT(1)5-WL(T)5

Isover EPS 100

Stabilized expanded polystyrene boards

TECHNICAL SPECIFICATION

EPS (expanded polystyrene) is a light and solid organic foam widely used in the European construction industry, especially as thermal insulation. In the last 50 years, white insulation boards have acquired a strong position in construction thanks to their excellent properties. Isover EPS insulation boards are manufactured using the latest technology without the use of CFC and HCFC (known as Freon). The use of modern technologies ensures consistent quality and minimum energy consumption during production, resulting in an excellent price/performance ratio. All Isover EPS boards are rated as self-extinguishing with improved fire safety.

APPLICATION

Isover EPS 100 insulation boards are designed especially for thermal insulation with normal requirements for compressive load, such as floors, flat roofs, etc. The boards are suitable for insulating layers of energy-saving buildings (lower energy and passive houses) with standard insulation thickness of 200 to 500 mm.

BENEFITS

- Very good thermal insulation performance.
- Excellent mechanical properties.
- Minimum weight.
- Easy workability.
- Long life span.
- Environment and health friendly.
- Permanent moisture resistance.
- Biological neutrality.
- Economical.

PACKAGING, TRANSPORT, WAREHOUSING

Isover EPS insulation boards with dimensions of 1 000 × 500 mm and 1 000 × 1 000 mm are wrapped in PE foil in packages of a max. height of 500 mm. Non-standard sizes such as 1 000 × 2 000 mm or 1 000 × 2500 mm are strapped. The boards must be transported and stored under conditions preventing damage. Do not store for prolonged periods in direct sunlight.

EDGES

Standard boards have straight edges; rabbet edges are available at special surcharge (up to max. thickness of 240 mm, the coverage size will be reduced by the rabbet dimension, i.e. 15 mm).

DIMENSIONS AND PACKAGING

Thickness [mm]	Length × width [mm]	Volume per package			Declared thermal resistance R_D [m²·K·W⁻¹]
		[pcs]	[m²]	[m³]	
10	1 000 × 500	50	25.0	0.250	0.25
20	1 000 × 500	25	12.5	0.250	0.50
30	1 000 × 500	16	8.0	0.240	0.80
40	1 000 × 500	12	6.0	0.240	1.05
50	1 000 × 500	10	5.0	0.250	1.35
60	1 000 × 500	8	4.0	0.240	1.60
80	1 000 × 500	6	3.0	0.240	2.15
100	1 000 × 500	5	2.5	0.250	2.70
120	1 000 × 500	4	2.0	0.240	3.20
140	1 000 × 500	3	1.5	0.210	3.75
160	1 000 × 500	3	1.5	0.240	4.85
180	1 000 × 500	2	1.0	0.180	4.60
200	1 000 × 500	2	1.0	0.200	5.40

Subject to prior agreement, the products may be supplied in different thicknesses and sizes.

Isover
Saint-Gobain Construction Products CZ a.s.
Smrčkova 2485/4, 180 00 Prague 8 – Libeň, Czech Republic
podpora@saint-gobain.com • www.isover.cz

Isover EPS 100

Stabilized expanded polystyrene boards

TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code	
Geometric shape					
Length tolerance	[%, mm]	EN 822	±3 mm	Class of length tolerances	L3
Width tolerance	[%, mm]	EN 822	±3 mm	Class of width tolerances	W3
Thickness tolerance	[%, mm]	EN 823	±2 mm	Class of thickness tolerances	T2
Deviation from squareness of the edge on length and width S_b	[mm·m^{-1}]	EN 824	±5	Class of squareness on length and width	S5
Deviation from flatness S_{max}	[mm]	EN 825	10	Class of flatness	P10
Relative change in length $\Delta\varepsilon_l$, in width $\Delta\varepsilon_b$, in thickness $\Delta\varepsilon_d$	[%]	EN 1604	0.2	Class od dimensional stability under constant normal laboratory conditions	DS(N)2
			1	Dimensional stability under the 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 13162+A1 Measurement according to EN 12667	0.037		
Design thermal conductivity λ_u[2)]	[W·m^{-1}·K^{-1}]	ČSN 73 0540-3	0.037		
Specific heat capacity c_d	[J·kg^{-1}·K^{-1}]	ČSN 73 0540-3	1270		
Mechanical properties					
Compressive stress at 10% deformation σ_{10}	[kPa]	EN 826	10	Level of compressive stress at 10% deformation	CS(10)70
Long-term compressive stress at 2 % deformation[3)]	[kPa]		20		
Bending strength σ_b	[kPa]	EN 12089	150	Level of bending strength	BS150
Fire safety properties*					
Reaction to fire class	[-]	EN 13501-1+A1	E*		
Maximum temperature for use	[°C]		80		
Hydrothermal properties					
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	30-70		
Other properties					
Density	[kg·m^{-3}]	EN 1602	18-20**		

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
- 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-100

1/5/2025 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.

Isover
Saint-Gobain Construction Products CZ a.s.
Smrčkova 2485/4, 180 00 Prague 8 – Libeň, Czech Republic
podpora@saint-gobain.com • www.isover.cz