

# ISOVER EPS Perimeter

## Insulating boards made in forms

### TECHNICAL SPECIFICATION

ISOVER EPS Perimeter are thermally insulating EPS boards made in forms. Their characteristic features are minimum moisture absorption, high pressure resistance, and frost resistance. They are made in the size of 1250 × 600mm, and are fitted with a rabbet around their perimeter. Like XPS boards, they are designed for thermal insulation of the bottom parts of the building in direct contact with moisture, such as foundation boards, basement walls, etc. They are designed for a maximum permanent pressure load of 3600 kg/m<sup>2</sup> with a deformation < 2%.

ISOVER EPS Perimeter insulation boards are made using the latest technologies without any contents of CFCs and HCFCs (known as freons). The modern technology ensures constant quality and minimum power demands of production, which provides the boards with the excellent price/output ratio. All EPS ISOVER boards are made in fire-self-extinguishing design with increased fire safety.\*

### PACKAGING, TRANSPORT, WAREHOUSING

EPS ISOVER insulation boards are packed in PE foil in packets with the maximum height of 500 mm. Boards must be transported and stored under the conditions preventing from damage.

### BENEFITS

- low water absorption
- freeze-thaw resistance
- excellent thermal insulation
- excellent mechanical properties
- minimum weight
- easy workability
- long life span
- environment and health friendly
- biological neutrality
- economical



### DIMENSIONS AND PACKAGING

Thickness [mm]	40	50	60	80	100	120	140	160	180	200
Length × width [mm]	1250 × 600									
Volume per package [pcs]	12	10	8	6	5	4	3	3	2	2
Volume per package [m <sup>2</sup> ]	9.00	7.50	6.00	4.50	3.75	3.00	2.25	2.25	1.50	1.50
	0.360	0.375	0.360	0.360	0.375	0.360	0.315	0.360	0.270	0.300
Declared thermal resistance R <sub>0</sub> [m <sup>2</sup> ·K·W <sup>-1</sup> ]	1.15	1.45	1.75	2.35	2.90	3.50	4.10	4.70	5.25	5.85

\* It is necessary to consult with the producer for the terms of delivery. Minimální dodací množství 5 m<sup>2</sup>. Po dohodě lze dodat i v jiných tloušťkách (max. 200 mm).

### EDGE PROFILE

### TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code
<b>Geometric shape</b>				
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 <sub>2</sub>	[mm·m <sup>-1</sup> ]	EN 824	±5	Class of squareness on length and width S5
Deviation from flatness S <sub>max</sub>	[mm]	EN 825	10	Class of flatness P10
Relative change in length Δε <sub>l</sub> , in width Δε <sub>b</sub> , in thickness Δε <sub>d</sub>	[%]	ČSN EN 1604	±0.2	Class of dimensional stability under constant normal laboratory conditions DS(N)2
			1	Dimensional stability under the specified temperature and humidity conditions DS (70,-)1
<b>Thermal technical properties</b>				
Declared value of the thermal conductivity coefficient λ <sub>0</sub> <sup>1)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	Declaration according to EN 13163+A1 Measurement according to EN 12667	0.034	
Design thermal conductivity λ <sub>v</sub> <sup>2)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	0.034	
Specific heat capacity c <sub>v</sub>	[J·kg <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	1270	
<b>Mechanical properties</b>				
Compressive stress at 10% deformation σ <sub>10</sub>	[kPa]	EN 826	200	Level of compressive stress at 10% deformation CS(10)200
Long-term compressive stress at 2% deformation	[kPa]		36	
Tensile strength perpendicular to faces σ <sub>nt</sub>	[kPa]	EN 1607	150	Level of tensile strength perpendicular to faces TRI50
Bending strength σ <sub>b</sub>	[kPa]	EN 12089	250	Level of bending strength BS250
<b>Fire safety properties</b>				
Reaction to fire class	[-]	EN 13501-1+A1	E**	
Long-term thermal resistance	[°C]		80	
<b>Hydrothermal properties</b>				
Long-term water absorption by total immersion W <sub>10</sub>	[kg·m <sup>-2</sup> ]	Declaration according to EN 13163+A1 Measurement according to EN 12087	0,5	Level of long-term water absorption by partial immersion WL(P)0,5
Long term water absorption by total immersion W <sub>1t</sub>	[%]	EN 12087	3	Level of long-term water absorption by total immersion WL(T)3
Water vapour diffusion resistance factor μ	[-]	EN 13163+A1	40-100	Value for water vapour diffusion resistance factor MUI00
<b>Other properties</b>				
Density	[kg·m <sup>-3</sup> ]	EN 1602	28-30***	

<sup>1)</sup> Declared values were set under the following conditions (reference temperature 10 °C, humidity u<sub>dry</sub>, which is reached by drying) according EN ISO 10456.

<sup>2)</sup> 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.

\* Self-extinguishing properties of EPS are ensured using a polymer-based flame retardant. The insulation boards do not contain HBCD.

\*\* 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 division, technical materials, valid technical norms, and the specific project.

### RELATED DOCUMENTS

- Declaration of Performance CZ0004-019
- ISO 9001, ISO 14001, ISO 45001, ISO 50001

14. 5. 2020 The information is valid up to date of publishing. The manufacturer reserves right to change the data.