ISOVER SAINT-GOBAIN
Assurance in insulation

CERTIFIED
ISO 9001 · ISO 14001
OHSAS 18001 · ISO 50001

CE

Isover TRAM EPS

Product from expanded polystyrene

TECHNICAL SPECIFICATION

Isover TRAM EPS blocks are made of expanded polystyrene. Expanded polystyrene is a light and solid organic foam widely used in European construction industry, especially as thermal insulation. Insulation boards EPS Isover boards are manufactured using the latest technology without the use of CFC and HCFC (known as freons). The use of modern technologies ensures a permanent quality and minimum energy consumption during production, resulting in an excellent price/performance ratio. All EPS Isover boards are rated as self-extinguishing with improved fire safety.*

APPLICATION

Isover TRAM EPS products are solely designed for slanting roofs structures, especially for insulation over rafters where they form parallel stripes that are necessary for the assembly itself. Detailed description of use is presented in the slanting roofs catalogue.

PACKAGING, TRANSPORT, WAREHOUSING

Isover TRAM EPS insulation blocks are wrapped in PE film in packages of a max. height of 500 mm. The blocks must be transported and stored under conditions preventing their degradation. Do not store for prolonged periods in direct sunlight.

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

DIMENSIONS AND PACKAGING

Thickness	[mm]	160	200	240	280	300
Length × width	[mm]	1000 × 100				
Volume per package	[ks]	10	10	10	5	5
	[m^2]					
	[m^3]					
Declared thermal resistance R_D	[$m^2 \cdot K \cdot W^{-1}$]	4.55	5.70	6.85	8.00	8.55

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	[$mm \cdot m^{-1}$]	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 the thermal conductivity coefficient λ_D[1)]	[$W \cdot m^{-1} \cdot K^{-1}$]	Declaration according to EN 13163+A1	0.035		
		Measurement according to EN 12667			
Design thermal conductivity λ_u[2)]	[$W \cdot m^{-1} \cdot K^{-1}$]	ČSN 73 0540-3	0.035		
Specific heat capacity c_d	[$J \cdot kg^{-1} \cdot K^{-1}$]	ČSN 73 0540-3	1270		
Mechanical properties					
Compressive stress at 10% deformation σ_{10}	[kPa]	EN 826	150	Level of compressive stress at 10% deformation	CS(10)150
Long-term compressive stress at 2 % deformation[3)]	[kPa]		30		
Bending strength σ_b	[kPa]	EN 12089	200	Level of bending strength	BS200
Fire safety properties					
Reaction to fire class	[-]	EN 13501-1+A1	E**		
Long-term thermal resistance	[°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	[$kg \cdot m^{-3}$]	EN 1602	23-25***		

[1)] Declared values were set under the following conditions (reference temperature 10 °C, humidity u_{dry} which is reached by drying) according EN ISO 10456.
[2)] 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.
[3)] Pro zatížení menší možno deformaci lineárně interpolovat k nule.

* 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 CZ0004-006
- ISO 9001, ISO 14001, OHSAS 18001, ISO 50001

4. 7. 2019 The information is valid up to date of publishing. The manufacturer reserves right to change the data.

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