

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]					
Declared thermal resistance R _D	[m ² ·K·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 _D	[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 Δε _l , in width Δε _w , in thickness Δε _d	[%]	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
Thermal technical properties				
Declared value of the thermal conductivity coefficient λ _D ¹⁾	[W·m ⁻¹ ·K ⁻¹]	Declaration according to EN 13163+A1 Measurement according to EN 12667	0.035	
Design thermal conductivity λ _D ²⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.035	
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	150	Level of compressive stress at 10% deformation CS(10)I50
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 _t	[%]	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	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.