



Isover Twinner

Insulation board are designed for façade systems

TECHNICAL SPECIFICATION

Isover Twinner is a sandwich thermal and noise insulation board made of Isover EPS GreyWall Plus graphite insulation core with enhanced insulating effect and a 30 mm-thick Isover TF Profi cover layer. Bonding is achieved using an industrial polyurethane adhesive that ensures high tensile and shear strength and enables efficient production of 120–300 mm-thick insulation boards for energy-efficient buildings. Isover Twinner insulation boards are manufactured using the latest CFC-/HCFC (also known as Freon) -free technologies. The EPS insulating component has a self-extinguishing design with improved fire safety.



APPLICATION

Isover Twinner insulation boards are designed for façade systems, especially suitable for buildings with increased fire safety demands, e.g. residential buildings higher than 12 m, when superior fire resistance properties enable insulation of walls without inserting MW fire strips. Other areas of typical use include e.g. low energy and passive houses.

PACKAGING, TRANSPORT, WAREHOUSING

Isover Twinner 1000 × 500 mm insulation boards are packaged in PE foil in packages with a max. height of 500 mm. Material must be transported and stored in conditions that prevent degradation. Do not store in direct sunlight (max. thermal resistance of graphite core 70 °C).

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_D [m ² ·K·W ⁻¹]
		[pcs]	[m ²]	[m ³]	
120	1 000 × 500	4	2.0	0.240	3.60
140	1 000 × 500	3	1.5	0.210	4.20
150	1 000 × 500	3	1.5	0.225	4.50
160	1 000 × 500	3	1.5	0.240	4.80
180	1 000 × 500	2	1.0	0.180	5.45
200	1 000 × 500	2	1.0	0.200	6.05
220	1 000 × 500	2	1.0	0.220	6.85
240	1 000 × 500	2	1.0	0.240	7.50
260	1 000 × 500	1	0.5	0.130	8.10
280	1 000 × 500	1	0.5	0.140	8.75
300	1 000 × 500	1	0.5	0.150	9.35

* It is necessary to consult with the producer for the terms of delivery. Minimum delivery quantity 10 m³.

BENEFITS

- Superior fire resistance – fire reaction class B – s1, d0.
- The insulation meets the tests according to ISO 13785-1 and ISO 13785-2 and thus complies with the requirements of CSN 730810:2016 cl. 3.1.3.3 - 3.1.3.8. without fire separation strips MW and other measures.**
- Increased fire safety during application.
- Provides excellent thermal insulation – λ_D 0,032-0,033 W·m⁻¹·K⁻¹.**
- Easy workability with minimal weight.
- Superior protection of grey EPS against sunlight (shading not required when applying, installation possible from scaffolding).
- Thickness up to 300 mm (for low-energy and passive houses).
- Excellent shear properties even for large insulation thicknesses.
- Fire-resistant insulation up to 300 mm thick (up to 150 MJ/m²).

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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
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	0.032 -0.033 ³⁾		
Design thermal conductivity λ_D ²⁾	[W·m ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	0.034 -0.035		
Mechanical properties					
Tensile strength perpendicular to faces σ_m	[kPa]	EN 1607	10	Declared level of tensile strength perpendicular to faces	TR10
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	B*		
Maximum temperature for use	[°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	[-]			according to EPS and MW parts	
Other properties					
Density (EPS+MW)	[kg·m ⁻³]	EN 1602	25-50**		
Density (EPS)	[kg·m ⁻³]	EN 1602	13.5-14*		

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.

³⁾ Part MW 0.036 W·m⁻¹·K⁻¹, part EPS 0.031 W·m⁻¹·K⁻¹.

* 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

- Certificate no. 230602 V/AO
- Declaration of conformity
- ISO 9001, ISO 14001, ISO 45001, ISO 50001

More about the product

www.isover.cz/en/products/isover-twiner-zakladni-desky



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