STEICO internal

Wood fibre insulation boards for internal insulation

Wood fibre insulation board for internal masonry and timber frame insulation

- High building physics safety
- Can be combined with recommended Lime and Clay plasters
- Contributes to the regulation of indoor air moisture
- Independently tested and recommended by the German Institute for Building Biology Rosenheim
- Diffusion open and sorptive - natural moisture management to protect the construction
- Wood from responsible forestry - PEFC certified

Application area

- Interior insulation for mineral surfaces

Technical data

Produced and supervised according to	EN 13171
Board designation	WF – EN 13171 – T4 – CS(10\ Y)50 – TR2,5 – AFr 100
Fire class (RTF) according to EN 13501-1	E
Permanent temperature range [°C]	≤100
Declared thermal conductivity [W/(m*K)]	0.038
Density [kg/m³] (approx.)	160
Water vapour diffusion resistance factor μ	5
Specific heat capacity [J/(kg*K)]	2,100
Compressive strength at 10% compression δ_{10} [N/mm²]	0.05
Compression strength [kPa]	50
Tensile strength perpendicular to face [kPa] (approx.)	≥ 2.5
Manufacturing process	wet process / utilisation of the wood's own lignin for panel bonding
Ingredients	wood fibre, bond between layers
Bonded carbon [kg CO_2 equivalent./m³] (approx.)	270

Additional technical data

Thickness [mm]	Declared thermal resistance [(m²*K)/W]	s_d value [m]
40	1.05	0.20
60	1.55	0.30
80	2.10	0.40
100	2.60	0.50

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Forms of delivery

Handy formats, e.g. for construction site assembly

Thickness [mm]	Edge profile	Length [mm]	Width [mm]	Length net [mm]	Width net [mm]	Number/pal. [pcs.]	Coverage/pal. gross [m²]	Coverage/pal. net [m²]
40	T+G	1200	380	1186	366	84	38.304	36.462
40	SE	1200	380	1200	380	84	38.304	38.304
60	T+G	1200	380	1183	363	57	25.992	24.742
60	SE	1200	380	1200	380	57	25.992	25.992
80	SE	1200	380	1200	380	42	19.152	19.152
100	SE	1200	380	1200	380	33	15.048	15.048

Weight and packing

Handy formats, e.g. for construction site assembly

Thickness [mm]	Edge profile	Length [mm]	Width [mm]	Weight/m² [kg]	Weight/pcs. [kg]	pac./pal. paper/ cardboard (approx) [kg]	pac./pal. plastic (approx) [kg]	pac./pal. wood (approx) [kg]	Weight./pal. (approx.) [kg]
40	T+G	1200	380	6.40	2.7	4.20	0.8	18.2	255
40	SE	1200	380	6.40	2.9	0.10	0.7	18.2	265
60	T+G	1200	380	9.60	4.0	4.00	0.8	18.2	255
60	SE	1200	380	9.60	4.4	0.10	0.7	18.2	275
80	SE	1200	380	12.80	5.8	0.10	0.7	18.2	265
100	SE	1200	380	16.00	7.3	0.10	0.7	18.2	265

Notes

Storage

- Store wood fibre boards horizontally, flat and dry
- Protect edges from damage
- Only remove the film packaging when the ambient climate is dry and keep the pallet packing label
- Maximum stacking height: 2 pallets

Disposal

Waste cuttings:
- Waste code according to 2014/955/EU: 03 01 05

Dismantling:
- Waste code according to 2014/955/EU: 17 02 01

Cutting

- The boards can be cut to size using the STEICO*isoflex cut combi* cutting table, band saw, circular saw, jigsaw and other wood-cutting tools.

Occupational health and safety

- Comply with local regulations for the processing of wood-fibre material.
- Suitable protective measures must be taken when cutting the wood fibre insulation boards. (dust extraction, dust mask)

Building moisture

- Excess moisture caused by e.g. fresh screed, plaster, or paint must be removed by ventilation.
- Dry air must be provided inside the building during the construction phase.
- Wood fibre insulation boards are delivered dry. On building sites a material moisture level is reached that permits immediate plaster coating.
- Before plastering, a moisture content limit of 13% must be maintained in the wood fibre boards.
- For renovations and new buildings made of mineral building materials a high core moisture content of the substrate must be avoided.
- All types of external moisture sources (e.g. rising humidity) must be must be excluded or, if necessary, eliminated by specialists.

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Installation

Substrate

- The substrate must be firm, even, dry, load-bearing and free of grease, oil and dust.
- The doweling must be checked for suitability before fastening and bonding the wood fiber board on the wall
- A fully stable mineral surface must be available
- If the substrate is uneven, a levelling plaster must be applied
- Gypsum plaster, gypsum residues, wallpaper and adhesive as well as other adhesion-reducing, diffusion-inhibiting or even capillary impermeable coatings must be removed before gluing on the wood fibre insulation board

Bonding to masonry

- The entire surface of the wood fibre insulation board is bonded to the wall with lime or clay plaster (according to the plaster manufacturer's instructions). (Minimum bonding surface 80%)
- The adhesive mortar is applied to the masonry and to the unstamped back of the STEICO*internal* over the entire surface using a notched trowel.
- After bonding, the adhesive mortar must be allowed to dry for approx. 24 hours before the board is dowelled with appropriate dowels. (2 dowels per board distributed in the centre = approx. 4.5 dowels per m²)

Plastering wood fibre boards

- For onding STEICO*internal*, we recommend a multi-layer plaster system (lime or clay) with a mesh inlay (reinforcing mesh)
- The first layer of reinforcement is applied with a pressed leveling, which is then levelled horizontally with a notched trowel.
- After the reinforcing plaster has dried, a second layer of reinforcing plaster is applied, in which the reinforcing mesh is embedded.
- Once both reinforcement layers are completely dry, the finishing render can be applied. (Approx. 1 day drying time per mm of plaster thickness)

Cable and wiring installation

- Electrical cables are laid flush into the existing external wall before the STEICO*internal* is bonded.
- We recommend the internal insulation boxes from Kaiser as installation boxes for cables
- Heating and water pipes should be avoided in the external wall due to the risk of frost.

Additional information

- All plaster types and plaster layer thicknesses are based on the specifications of the respective plaster manufacturer
- As STEICO*internal* is an internal insulation, insulation thicknesses > 40mm are not free of building physics requirements and must be verified by experts using suitable instationary (numerical) software in accordance with EN 15026, e.g. WUFI Pro.
- Protection against driving rain: If affected walls are exposed to the weather and are not protected by neighbouring buildings of at least the same height, a fully intact exterior render or a rear-ventilated weatherboarding is required. Otherwise, specialists should be consulted to advise on suitable measures for the specific project.

Certificates and quality management

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Caption

other abbreviations

pal. Pallet
T&G Tongue and Groove
pac. Packaging
approx. Approximately
SE square edge
Pcs. Pieces

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The contents of this document have been prepared in consideration of European product standards and provide a general overview of component structures, construction methods, and installation. Local applicable regulations have not been considered. Before using our products, please verify that the applicable regulations for the specific area of use are followed.

The currently valid version can be found at: www.steico.com/tds_steicointernal_eur_en