



- Environmentally friendly internal insulation made from natural softwood
- Ideal for renovation of masonry and traditional timber constructions
- Excellent control of condensation – advanced performance using intelligent building physics
- Can be utilised without an additional vapour barrier
- Water vapour open for a healthy internal climate
- Ecological and recyclable with no impact on the environment

### Application area



- Interior insulation for mineral surfaces

### Fields of application according to DIN 4108 - 10: 2021

- WI (zk, zg)

### 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/m <sup>3</sup> ]	approx. 160
Water vapour diffusion resistance factor $\mu$	5
Specific heat capacity [J/(kg*K)]	2,100
Compressive strength at 10% compression $\delta_{10}$ [N/mm <sup>2</sup> ]	0.05
Compression strength [kPa]	50
Tensile strength perpendicular to face [kPa]	≥ 2.5
Manufacturing process	wet process / utilisation of the wood's own lignin for panel bonding
Ingredients	wood fibre, bond between layers
European Waste Code (EWC)	030105/170201, disposal as wood and wood-based materials, waste wood category A II
Bonded carbon [kg CO <sub>2</sub> equivalent./m <sup>3</sup> ]	270

### Additional technical data

Thickness [mm]	Declared thermal resistance [(m <sup>2</sup> *K)/W]	s <sub>d</sub> value [m]
40	1.05	0.20
60	1.55	0.30

### Forms of delivery

Handy formats, e.g. for construction site assembly

Thickness [mm]	Edge profile	Length [mm]	Width [mm]	Number/pal. [pcs.]	Coverage/pal. gross [m <sup>2</sup> ]
40	SE	1200	380	84	38.304
60	SE	1200	380	57	25.992

### Weight and packing

Handy formats, e.g. for construction site assembly

Thickness [mm]	Edge profile	Length [mm]	Width [mm]	Weight/m <sup>2</sup> [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	SE	1200	380	6.40	2.9	0.10	0.7	18.2	265
60	SE	1200	380	9.60	4.4	3.75	0.7	18.2	275

### 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

- Disposal of offcuts: Waste code (EWC / AVV) 170201/030105, disposal as wood and wood-based materials, waste wood category II
- Disposal after dismantling: Waste code (EWC / AVV) 170201/030105, disposal as wood and wood-based materials, waste wood category II

#### 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.
- Where mineral building substrates have a high core moisture content, additional measures, e.g. the installation of drying equipment, are recommended to remove excess moisture

## 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 m<sup>2</sup>)

### Bonding wood fibre boards

- For bonding 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 trowel, 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 an external company using a hygrothermal simulation. For insulation thicknesses of 40 mm, the above-mentioned points on driving rain protection must be observed.
- This document is based on the German technical data sheet and serves as general information in an international context. National regulations and building regulations must also be observed.

## Certificates and quality management



## ☰ Caption

### Fields of application

#### Wall

**WI** Interior wall insulation

### Differentiation of certain product features:

#### Tensile strength

**zk** No requirements for tensile strength

**zg** Low tensile strength

#### other abbreviations

**pal.** Pallet

**T&G** Tongue and Groove

**pac.** Packaging

**approx.** Approximately

**SE** square edge

**Pcs.** Pieces