STEICO *flex*

flexible thermal insulation from wood

Environmentally-friendly insulation system made from **natural** wood fibres

AREAS OF APPLICATION

Flexible cavity insulation in **roof, dry wall** and **floor** constructions

Cavity insulation for **partition walls, external walls** and **service zones**

- flexible thermal insulation
- classified as non-irritant to skin
- good compression resistance
- expands to fit adjoining components
- prevention of thermal bridges
- excellent insulation properties in winter and summer
- water vapour open for a healthy room environment
- helps to regulate the indoor climate
- provides a green architectural solution
- easy handling
- ecological and environmentally-friendly, recyclable

For more information please visit our website at **www.steico.com**

STEICO*flex* is certified with the European quality mark – natureplus®.

The natureplus®-seal of quality embodies health awareness, environmentally-friendly production, protection of limited natural resources and their suitability of application. Products with this label are made predominantly from renewable/ sustainable sources of raw materials.

AREAS OF APPLICATION
(according to national regulations)

Between rafter and joist insulation, dry wall insulation and loft insulation

Insulation of timber frame structures

Wall insulation

Internal partition wall insulation

HEAT PROTECTION

STEICO*flex* makes a significant contribution to your comfort at home due to its excellent insulation performance in winter. STEICO*flex* provides optimum heat protection for your whole structure including walls, ceilings and roofs.

In addition, thanks to its low thermal conductivity and high heat capacity, STEICO*flex* also protects your house against overheating in summer. The high material density of approximately 50 kg/m³ and the high specific heat capacity of 2100 J/kgK (more than twice as high as mineral wool) provide heat insulation on the hottest days.

MORE VITALITY IN A HEALTHY ROOM ENVIRONMENT

Whether you feel really comfortable within your own four walls depends on many factors but the right environmental climate is definitely a key factor , so are pleasant temperature, optimum humidity and fresh air.

STEICO*flex* consists of natural wood fibres and demonstrates all the advantages of wood as a natural building material. This flexible insulation board has a water vapour open structure, so that water vapour can pass through to the ventilated cavity – in a similar way to breathable fabrics.

Wood fibres have a much higher capacity to retain moisture than conventional insulating materials. As a result, STEICO*flex* makes a contribution to the regulation of the air humidity (e.g. when installed as inner wall insulation). Additionally, its high capacity to retain moisture prevents condensation risks. The entire construction is safeguarded against interstitial condensation. Using STEICO*flex* for both external or internal insulation, sound is effectively absorbed. Furthermore, due to its strong compression resistance and expansion characteristics, STEICO*flex* contributes to the elimination of the airborne sound permanently by ensuring that all voids remain filled.

ECOLOGY

The raw material for all STEICO wood fibre insulating materials originates from sustainable forestry, which complies with the strict requirements of the FSC® (Forest Stewardship Council). The goal of the FSC® is the promotion of environmentally-friendly, socially responsible and economically sustainable forest management. Consequently those using STEICO*flex* make a significant contribution to climate protection.

An average tree stores approximately 1 tonne of CO_2 during its growth and at the same time produces 0.7 tonnes of oxygen. The CO_2 stored in the trees in the form of carbon remains in the finished product – while the replanted trees continue to absorb the greenhouse gas CO_2 from the atmosphere.

MACHINING – SIMPLE AND NON ALLERGENIC

STEICO*flex* is characterised by good compression resistance as well as dimensional stability. Cut sizes maintain their form and are safe to install even when done so overhead. Thanks to the flexible structure of the insulation material, smaller unevenness can easily be levelled.

As with all STEICO natural fibre insulating materials, STEICO*flex* is particularly user friendly and will not knowingly cause itching or scratching – whether during cutting or installing. In order to make simple and uncomplicated cuts, it is best to use a special STEICO insulation knife or an electric all purpose saw (recommendation: Bosch GFZ A 14-35). Custom made insulation knives available direct from STEICO.

STEICO*flex* is installed into voids using minimum pressure (cut the board 10 mm oversize to assist friction fitting). For ‚Do-It-Yourself' users we recommend the use of 2 x 100 mm STEICO*flex* sheets for an insulation thickness of 200 mm.

STEICO*flex*'s standard widths are appropriate for general timber frames centres. Off cuts may be used to fill small voids to minimize wastage. To fill wider voids install the boards in a horizontal direction.

Raw materials

The raw material for STEICO*flex* comes from thinnings of surrounding pine forests and from saw mill residue.

No conventional formaldehyde or PMDI binders are used in the production of STEICO wood fibre insulating materials. Based on this, STEICO*flex* falls far below the minimum value of 0.1parts per million for formaldehyde emissions, required by the World Health Organisation (WHO).

Due to the constant control of raw materials during the production and by third party supervision, STEICO products are certified as emission free and non hazardous.

TIP

When STEICO*flex* is fitted in winter months, a vapour barrier should be fitted immediately to the inside face to prevent moisture uptake by the insulation.

PACKAGING

STEICO*flex* sheets

Thickness [mm]	Dimensions [mm]	Weight/m² [kg]	Pieces / Package	Packages / Pallet	Coverage / Pallet [m²]	Approximate weight / Pal. [kg]
40	1220 * 575	2.00	10	12	84.2	186
50	1220 * 575	2.50	9	10	63.1	186
60	1220 * 575	3.00	8	10	56.1	186
80	1220 * 575	4.00	6	10	42.1	170
100	1220 * 575	5.00	4	12	33.7	170
120	1220 * 575	6.00	4	10	28.1	175
140	1220 * 575	7.00	4	8	22.0	160
160	1220 * 575	8.00	3	10	21.0	170
180	1220 * 575	9.00	3	8	16.8	190
200	1220 * 575	10.00	2	12	16.8	200
220	1220 * 575	11.00	22 pieces per pallet		15.4	170
240	1220 * 575	12.00	22 pieces per pallet		14.0	175

Other board sizes are available on request.

STORAGE / TRANSPORT

STEICO*flex* must be kept dry. In case of moisture ingress please dry immediately and prevent further moisture uptake

STEICO*flex* should be stored flat on a level surface

Transport packaging should only be removed once the pallet is on a safe and level surface

CHARACTERISTIC VALUES STEICO*flex*

Produced and supervised according to EN 13171	
Board designation	WF – EN 13171 – T2 – TR1 – AF5
Fire class according to EN 13501-1	E
Declared thermal conductivity λ_D [W/(m*K)]	0.038
Declared thermal resistance R_D [(m²*K)/W]	1.05 / 1.30 / 1.55 / 2.10 / 2.60 / 3.15 / 3.65 / 4.20 / 4.70 / 5.25 / 5,75 / 6,30
Thickness [mm]	40 / 50 / 60 / 80 / 100 / 120 / 140 / 160 / 180 / 200 / 220 / 240
Density [kg/m³]	ca. 50
Water vapour diffusion resistance value μ	1/2
Specific heat capacity c [J/(kg*K)]	2100
Declared level of airflow resistance [(kPa*s)/m²]	≥ 5
Ingredients	wood fibres, polyolefin fibres, ammonium phosphate
Waste code (EAK)	030105 / 170201

Operating site certified according to ISO 9001:2000

STEICO
natural building products

Your STEICO Agent

www.steico.com