

# Instructions for use

## STEICOflex

Environmentally friendly insulation  
systems made from natural wood fibres

### Technology and details



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**STEICO**  
engineered by nature

# $\lambda_D$ 0.036

STEICOflex 036 has the lowest thermal conductivity of all natural insulating materials



## STEICOflex

### Better insulation, naturally.

STEICOflex insulation mats are made from natural softwood, which gives them all the benefits that wood offers as a natural construction material. STEICOflex is the ideal insulation for anyone wishing to combine high technology with building sustainably and protecting the climate.

STEICO uses only wood sourced responsibly through forestry certified by the FSC® (Forest Stewardship Council) or PEFC® (Programme for the Endorsement of Forest Certification Schemes). Both certification systems impose stringent requirements on forestry businesses in terms of sustainability, environmentally friendly forest management, work quality and social responsibility. Furthermore, STEICO products bear the quality seal of the IBR (Institut für Baubiologie Rosenheim), which is a testament to their environmental credentials.



The information in this booklet applies to the STEICOflex 036 and STEICOflex 038 wood fibre insulation mats. Both are referred to as STEICOflex for the sake of simplicity.

## Application areas

# Application areas

## STEICOflex – the flexible wood fibre insulation mat

The flexible and vapour-permeable wood fibre insulation mat is equally suited to cavities in roof, wall and ceiling structures and to cavity insulation in partition walls, facing formwork and installation levels.

STEICOflex is highly compressible. It is installed dry and will not resist compression. STEICOflex is produced and monitored in accordance with the EN 13171 standard.



### Applications as per German standard DIN 4108-10:2015. National standards and regulations must be observed

<b>DZ</b>	Insulation between rafters; double-skin roof Uppermost floor not designed for floor traffic but accessible	
<b>DI – zk</b>	Internal insulation to ceiling (from below) or roof Insulation below rafters/load-bearing construction, suspended ceiling, etc	
<b>WH</b>	Insulation to timber-frame and timber-panel construction	
<b>WI – zk</b>	Internal insulation to wall	
<b>WTR</b>	Insulation to partitions	

Tensile strength: zk = none

# Handling

## Installing STEICOflex properly

When handling STEICOflex inside the building shell, you will need an airtight layer and a vapour barrier layer on the inside and a driving rain and wind seal on the outside (see also 'STEICOmulti sealing system') product overview. The planner should verify that STEICOflex has been used correctly.

Cavities fitted with STEICOflex should be sealed after four weeks at the most to prevent damage to the insulation. STEICOflex must be protected from moisture at all times. If STEICOflex is installed in exterior structures during cold weather, it is important to fit the necessary vapour barrier

and apply an airtight seal to it immediately after installation. This will prevent moisture from penetrating the thermal insulation and other structural layers from the interior.

In the case of variable-moisture vapour barrier sheets such as STEICOmulti *renova*, vapour diffusion resistance will reduce at high relative humidity. This is particularly important to note when construction moisture (interior plastering, liquid screed) increases on building sites in winter.

## Storage and transport

### Dos and don'ts

- Do not remove transport packaging until the pallet is on solid and level ground
- Do not place anything on top of stored pallets
- Do not place any significant loads on insulation packaging when it is in storage or being transported
- Store STEICOflex in a dry place
- Retain pallet inserts and packing labels for your construction site records



## Sizes and cutting

### Sizes

#### Rectangle measuring 1,220 x 575 mm



- The width of 575 mm is designed to suit the conventional timber-frame system spacing of 625 mm with wooden studs 60 mm wide.
- STEICO*flex* 038 is also available in a size of 625 x 1,200 mm and widths of 40, 60 and 80 mm for use between metal studs (C studs/U tracks with widths of 75, 100 and 125 mm).

#### Wedge (triangle) measuring 1,220 x 670 mm



- Suitable for cutting with the STEICO insulation knife for use on smaller wall or roof surfaces

### Cutting

STEICO*flex* can be cut easily with an insulation knife, a reciprocating saw, a jigsaw or any power hand saw with two reciprocating serrated blades.

STEICO*flex* produces very little dust when handled and is gentle on skin.

#### STEICO*isoflex cut combi* – the cutting table

In the case of frequent insulation work and to improve cutting precision, a power saw can be set up on a special cutting table: the STEICO*isoflex cut combi*. The precise positioning means that there is no need to keep calibrating the desired insulation width over and over again. The cutting operations are kept parallel, and it is possible to cut at precise angles.

The STEICO*isoflex cut combi* cutting table can easily be transported to the required location on standard castors, which makes it flexible and time-saving for on-site production of elements for walls, ceilings and roofs.

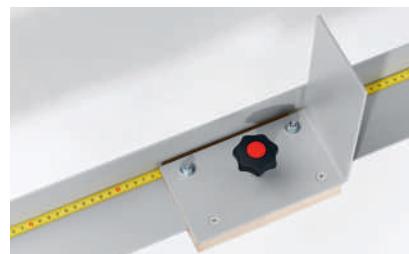
STEICO*isoflex cut combi* is available as part of our product range. Please ask your specialist dealer whether equipment is available for hire. See page 6 for other cutting equipment.



Safe handling



Cutting at precise angles



Accurate width settings

## Cutting equipment

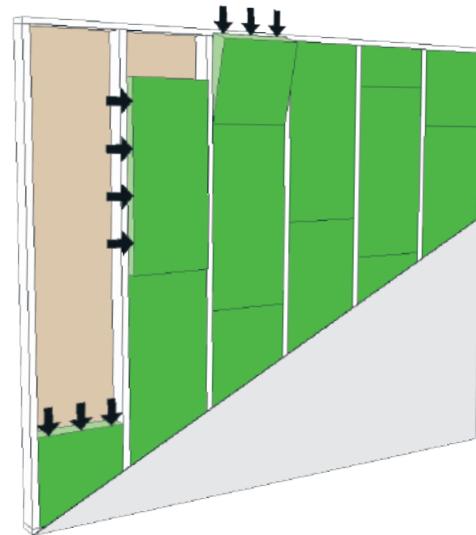
Cutting devices	Accessories	Notes
Bosch GFZ 16-35 AC	TF 350 WM double serrated blade set	–
Dewalt DWE396, DWE397, DWE398, DWE399	DT2979-QZ serrated blade set	–
Mafell DSS 300 cc wire insulation saw	ST 1700 Vario saw workbench S 200 high-capacity extractor	Max. cutting depth: 300 mm Cutting depth of 140 mm when swivelled 60° Fibre extraction and vacuum cleaner recommended
Jigsaw	Bosch T 1013 AWP jigsaw blade	Good cutting quality up to an insulation thickness of 160 mm Vacuum cleaner recommended
	Bosch T 313 AW jigsaw blade	Maximum insulation thickness: 100 mm Vacuum cleaner recommended
Plunge-cut circular saw	Kaindl Insucut circular blade Diameters: 160–350 mm	For thin insulation in combination with a hand-held circular saw and a track system. Vacuum cleaner recommended
Festool	ISC 240 EB cordless insulation saw (cutting set: SG-240 / W-ISC)	Max. cutting depth: 240 mm Larger cutting depths with cutting set SG-350/W-ISC
STEICO insulation knife	–	Serrated knife for small surfaces and tidying up

## Installation with oversize to assist friction fitting

STEICOflex is installed slightly longer and wider than it needs to be. This ensures that STEICOflex can be friction-fitted in the cavity. The oversize to assist friction fitting in the cavity measures approximately 10 mm. The wood fibre insulation mat clings snugly in place in the cavity and will retain its shape there permanently.

The oversize to assist friction fitting depends on the insulation thickness, the rafter spacing, the roughness of the rafters and the roof pitch.

The maximum insulation thickness corresponds to the rafter height/stud depth.



### The following maximum span widths can be applied to the horizontal ceiling area:

Insulation thickness [mm]	Maximum span width [mm]
40	450
50	475
60	500
80	550
100	600
120	650
140	700
160	750
180	800
200	850
220	850
240	850

Greater widths are possible for installation at inclines and in walls. STEICOflex wood fibre insulation mats fitted horizontally need to be secured to prevent them from falling out immediately after installation.

Suitable action should be taken to surround the edges of the cavities at storey height – 3.5 metres at most.



It is possible to fill large gaps by laying the mats on their sides. To avoid waste, you can take the remainder of a mat and push it into the cavity together with a new mat.  
= CONTINUOUS INSTALLATION

## General information

### Safety

Cutting and handling the flexible STEICOflex wood fibre insulation mats will produce dust. You should wear a commercially available dust mask when working overhead with STEICOflex. Observe all national regulations regarding working with wood dust. BG-Vorschriften zu

verwenden. Ferner sind die Bestimmungen der TRGS 553 zu beachten.

### Maximum temperatures

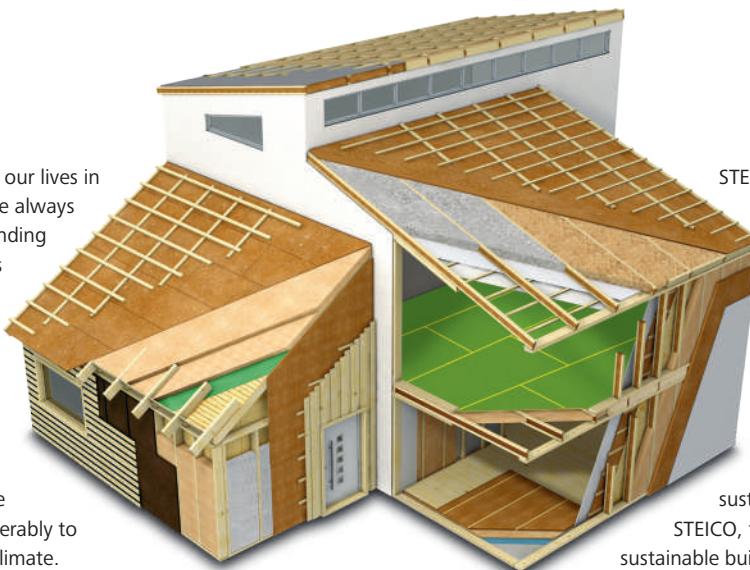
Installed elements such as ceiling spotlights with surface temperatures of more than 100 °C must not come into direct contact with STEICOflex. It

may be necessary to enclose fittings.

### Disposal

STEICOflex bears German waste codes 030105 and 170201, meaning that it is to be disposed of in the same way as wood and timber products. Observe all national regulations regarding disposal.

We spend approx. 80 % of our lives in enclosed rooms. But are we always aware what we are surrounding ourselves with? STEICO has set itself the target of developing building products which consider the needs of both man and nature. Our products are therefore produced using sustainable natural materials. They help reduce energy use and add considerably to a natural healthy internal climate.



STEICO insulation and construction materials, carry a number of distinguished 'seals of approval' which is a sign of high quality, healthy and functional building products. The raw materials used in STEICO products are certified by FSC® (Forest Stewardship Council®) and PEFC® (Programme for the Endorsement of Forest Certification®), ensuring a traceable and fully sustainable usage of the raw materials.

STEICO, the number 1 choice for your sustainable building solutions.

## Natural insulation and construction systems for new builds and renovations – roof, ceiling, wall and floor



Renewable raw materials without harmful additives



Excellent cold protection in winter



Excellent summer heat protection



Energy saving and increased property worth



Weather tight and breathable



Excellent fire protection



Excellent sound protection



Environmentally friendly and recyclable



Light and easy to handle



Insulation for healthy living



Strong quality control



Compatible insulation and structural building systems



FSC® C128750



PEFC®  
Förder  
nachhaltiger  
Waldbewirtschaftung

