

Environmentally-friendly insulation system
made from natural wood fibres



| AREAS OF APPLICATION

Internal insulation of
external walls

| MATERIAL

Wood fibre insulation board produced
in accordance with EN 13171 and with
ongoing quality supervision.

Wood for STEICO*internal* comes
from sustainable forestry and is
independently certified by the FSC®.

- 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.

OUR PLASTER RECOMMENDATION:



Solo One Coat from
Lime Green Products

For more information please visit our website at www.steico.co.uk



Comfort from within

Healthy, affordable and energy efficient.

Internal insulation makes sense: It reduces heating costs and can greatly improve the internal climate. There are many areas of application and on many buildings internal insulation is the only affordable solution.

There are many reasons to insulate internally. When external elevations can't be changed, when a single apartment in a block of flats is cold or when existing external insulations are insufficient or need improvement.

Internal insulation also offers possibilities in buildings that are not often used such as holiday homes, meeting rooms and guest rooms. With internal insulation systems the rooms heat up much quicker so the whole wall structure does not need 'heating through'.

In addition, the fixing of internal insulation is often much easier. There are no expensive scaffolding costs and the works can carry on regardless of external weather conditions. As internal insulation is more critical than external insulation in terms of building physics it is recommended to use components that are compatible together in use.



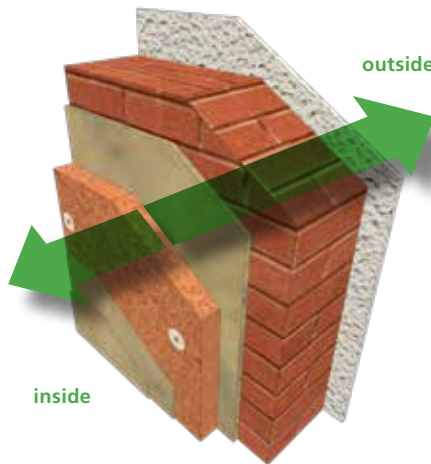
STEICO*internal*:

The easy to use insulation boards are ideal for use in tight room spaces. They are available with a T & G profile or as square edge.

| ADVANTAGE WOOD FIBRE – ON THE SAFE SIDE WITH STEICO

STEICO*internal*, the multi-purpose internal insulation board that saves energy and improves the internal climate.

The easy to use wood fibre boards are water vapour open and allow the passage of moisture through capillary action. Research at the Fraunhofer Institute for Building Physics has shown that wood fibre is able to buffer more moisture than any other researched internal insulation board¹. This means that STEICO*internal* provides excellent internal air quality, as moisture buffering and moisture transfer through capillary action, provide an internal climate that make mould growth almost impossible.



The working principle of wood fibre:

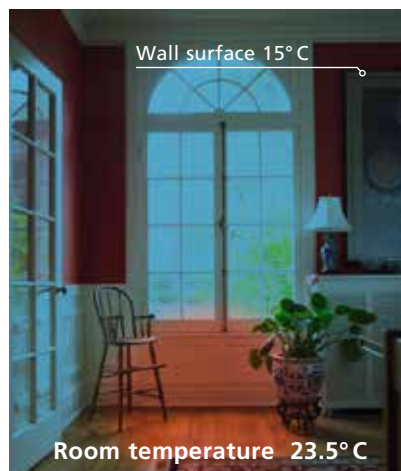
Moisture buffering with controlled release.

At times of high humidity eg in bedrooms at night or when cooking, the buffering effect of wood fibre removes additional moisture without the risk of condensation forming. Thanks to the transfer of moisture due to capillary action buffered moisture is transported to the face of the board so that any evaporation can occur through the external wall or into the room itself. An additional vapour control layer is therefore not required.

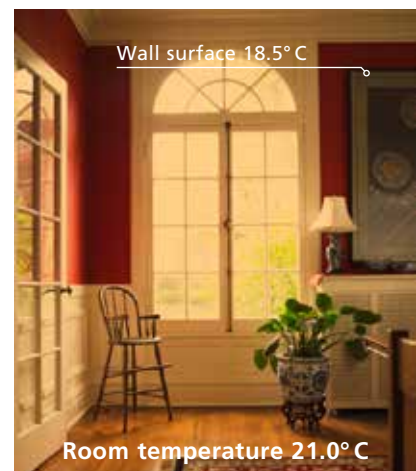
| GOOD CLIMATE LOOKING GOOD

Saving on energy costs and a healthy internal climate are important arguments for internal insulation but the appearance also plays an important role.

STEICO*internal* can be directly fixed and plastered and there are a multitude of available finishes and colours available. In order to ensure that the positive aspects of wood fibre are utilised to their best potential, STEICO has worked in conjunction with Lime Green Products to produce a detailed system fixing approach. The full details are available at www.steico.co.uk



Before internal insulation: Cold walls – uncomfortable even with high internal temperature



After internal insulation: Warm walls make for a comfortable room climate even at lower temperatures

Insulating with STEICO*internal* greatly increase the internal wall surface temperature – another important protection against the possible build-up of mould. Rooms also feel significantly warmer if the wall surface temperature is higher. If the room feels warmer, then it is often possible to decrease the actual room temperature.

¹Source: construction-physics Calendar



PACKAGING STEICO^{internal}

| Thickness [mm] | Edge profile | Size [mm] | Cover. dim. [mm] | Weight [kg / m ²] | Pieces / Pallet | m ² / Pallet | surface / Pallet | Weight / Pal [kg] |
|----------------|-----------------|-------------|------------------|-------------------------------|-----------------|-------------------------|------------------|-------------------|
| 20* | square edged | 1,350 * 600 | 1,350 * 600 | 3.20 | 116 | 94,0 | 94,0 | ca. 300 |
| 40 | tongue & groove | 1,200 * 380 | 1,186 * 366 | 6.40 | 84 | 38.3 | 36.5 | ca. 260 |
| 60 | tongue & groove | 1,200 * 380 | 1,186 * 366 | 9.60 | 54 | 24.6 | 23.4 | ca. 250 |
| 40 | square edged | 1,200 * 380 | 1,200 * 380 | 6.40 | 84 | 38.3 | 38.3 | ca. 260 |
| 60 | square edged | 1,200 * 380 | 1,200 * 380 | 9.60 | 57 | 26.0 | 26.0 | ca. 250 |
| 80 | square edged | 1,200 * 380 | 1,200 * 380 | 12.80 | 42 | 19.2 | 19.2 | ca. 270 |

*STEICO^{therm SD} for detailing and window reveals

CHARACTERISTIC VALUES STEICO^{internal}

STORAGE / TRANSPORT

Store flat, level and under cover.

Protect edges from damage.

Remove plastic foil packing only when the pallet is on hard, dry and even ground.

Max. stacking height: 2 pallets

For dust extraction please refer to national requirements

| Produced and supervised according to EN 13171 | |
|--|--|
| Board designation | WF – EN 13171 – T3 – CS(10\Y)40 – TR2.5 – AF 100 |
| Edge profile | tongue and groove / square edged |
| Fire class according to EN 13501-1 | E |
| Declared thermal conductivity λ_D [W/(m*K)] | 0.038 |
| Declared thermal resistance R_D [(m ² *K)/W] | 1.0 (40)/1.5 (60)/2.0 (80) |
| Density [kg/m ³] | ca.160 |
| Water vapour diffusion resistance factor μ | 5 |
| s_d value [m] | 0.2 (40)/0.3 (60)/0.4 (80) |
| Specific heat capacity c [J/(kg*K)] | 2100 |
| Compression strength [kPa] | 40 |
| Declared level of Airflow resistance [(kPa*s)/m ²] | ≥ 100 |
| Raw material | wood fibre, bond between layers |

STEICO recommends the use of Lime and Clay based plasters. For enhanced performance STEICO recommends the specially formulated plasters from Lime Green Products.

lime|green



allows Moisture Control Design compliant with
 ✓ EN 15026
 ✓ ASHRAE 160
 ✓ DIN 4108

Quality Management
 ISO 9001:2015

STEICO
 engineered by nature

Your STEICO Agent

www.steico.co.uk