

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](http://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.



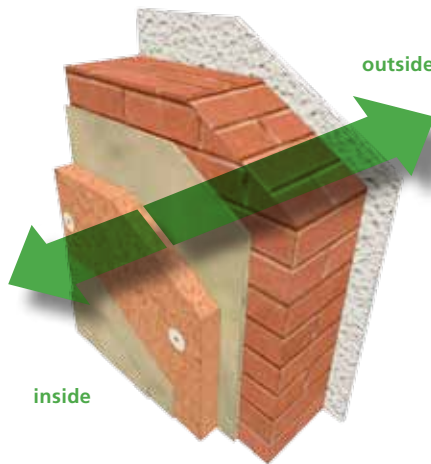
**STEICO***internal*:

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 board<sup>1</sup>. 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:

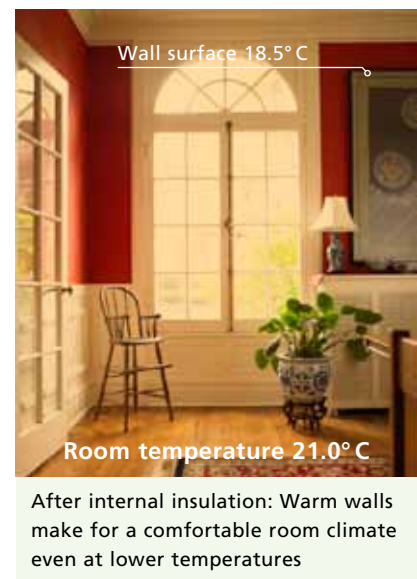
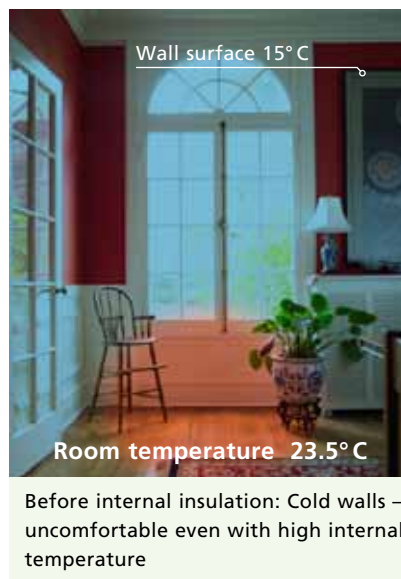
### Moisture buffering with controlled release.

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](http://www.steico.co.uk)



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.

<sup>1</sup>Source: construction-physics Calendar



## | PACKAGING STEICO*internal*

Thickness [mm]	Edge profile	Size [mm]	Cover. dim. [mm]	Weight [kg/m <sup>2</sup> ]	Pieces / Pallet	m <sup>2</sup> / 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.

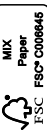
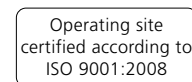
Max. stacking height: 2 pallets

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 $\lambda_D$ [W/(m*K)]	0.038
Declared thermal resistance $R_D$ [(m <sup>2</sup> *K)/W]	1.0 (40)/1.5 (60)/2.0 (80)
Density [kg/m <sup>3</sup> ]	ca.160
Water vapour diffusion resistance factor $\mu$	5
$s_d$ value [m]	0.2 (40)/0.3 (60)/0.4 (80)
Specific heat capacity $c$ [J/(kg*K)]	2100
Minimum compression strength [kPa]	40
Declared level of Airflow resistance [(kPa*s)/m <sup>2</sup> ]	$\geq$ 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



**STEICO**  
natural building products

Your STEICO Agent

www.steico.co.uk