

Sustainable construction products



AREAS OF APPLICATION

Studs for highly insulated walls with **reduced thermal bridging**

Joist for **floors** in timber-frame and masonry applications

Rafters for **roofs** in timber-frame and masonry applications



- Lightweight and dimensionally stable
- Service: design, take offs, extensive technical brochures
- Superior strength and easy installation of services
- Reduces thermal bridging
- Also available as a pre-insulated wall stud
- Easy cutting with hand or machine tools
- Solid timber flanges – dried, machine stress graded and finger jointed. Webs from high grade natural fibreboard
- ETA – European Technical Approval
- National distribution
- FSC® Certified

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



STEICO – LIVING NATURALLY!

STEICO products are innovative building materials that offer long-term performance, increase the comfort of living and help to visibly increase the energy efficiency in buildings. STEICO products are especially economical and environmentally-friendly as they are produced from sustainable resources. Whether for engineered timber elements or insulation materials, roofing boards or wall panels, STEICO offers a suitable product for each building application!

All STEICO products benefit from the properties of the natural materials that they are manufactured from. All products are easy to handle, non-allergenic and durable, i.e. building materials for future generations.

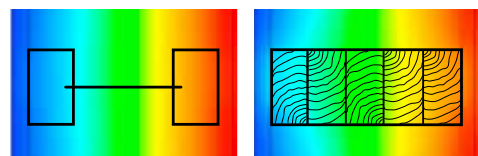
THE STEICOconstruction PRE-INSULATED BEAMS

One speciality are the pre-insulated studs. The space between the web and the flange is pre-insulated with STEICO insulation materials, made from natural wood fibres. Accordingly, there is no requirement for profiling the insulation to fit the recess of the I section on site. This means you can handle the studs in the same way as you would traditional solid studs.



STEICO pre-insulated beams are a pre-requisite in highly insulated wall constructions with reduced thermal bridging. Excellent results for both winter and summer heat protection as well as for sound and fire issues can be achieved when combined with the STEICO insulation system.

REDUCTION OF THERMAL BRIDGING



Wall section with STEICO I-Joist compared with a solid stud

The more technically advanced insulation materials become, the more focus has to be applied to the structural elements of a construction. In spite of the good structural properties of

wood, solid timber studs and rafters allow heat to pass from the inside to the outside of a wall or roof. This means that they are in effect a thermal bridge and this can be improved.

The I section profiles of the STEICOjoist and STEICOWall, with their reduced cross section of an 8 or 6mm web, reduce the capacity for a thermal bridge. In addition this leads to a reduction of raw materials in a typical construction of about 50%. Today, the depth of insulation materials required can dictate the overall dimensioning of a structure. The depth of insulation may be reduced by the use of STEICO I-Joist products, by increasing thermal efficiency and raw material usage.

FIRE PERFORMANCE

STEICOjoist and STEICOWall have fire classifications according to EN 1301-1:2002: D-s2,d0. Floor constructions with fire resistance of 30 and 60 minutes are approved. Please contact STEICO Ltd. for further information.

LIGHTWEIGHT IN COMBINATION WITH HIGH BEARING CAPACITY



STEICOjoists fulfil the demands from house builders for greater clear spans and better dimensional stability, whilst not increasing the size of the cross section of the construction elements. STEICOjoists have a high strength to weight ratio in relation to its equivalent solid

timber section. Whilst steel, concrete and large section solid timber components require mechanical handling, the STEICOjoists are up to 50% lighter than solid timber and maybe manually handled. Handling becomes easier, thus erection times are significantly reduced, making extensive labour cost savings.

INSTALLATION OF HOLES



The amount of pipes for plumbing and air conditioning in modern buildings is growing constantly. Installation of services on the intermediate floors can cause problems and can lead to unnecessarily deep floor build ups and increasing costs. Using the STEICOjoist you can drill certain service access

holes in the web without a reduction of the load bearing capacity of the beam.

STATE OF THE ART CONSTRUCTION SOFTWARE

A bespoke software package for STEICO I-Joist products provides an exceptional technical support service for the user. The software provides engineering calculations, material take offs as well as construction drawings and details. Please contact STEICO Ltd. for further information.



PROVEN QUALITY



- Flanges from machine graded, finger-jointed softwood
- High tensile strength – 22 N/mm² with STEICOjoist
- Strength Graded to L36-Joists & L17-Walls
- Webs from Natural Fibre Board according to EN622-2
- High shear capacity – 14 N/mm²

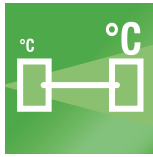
ADDITIONAL SERVICES

- Detailed technical literature
- Framing and Design software for take offs and design
- Partnerships with Simpson Strong-Tie and Cullens



OVERVIEW OF ALL I-JOISTS

Reduction of thermal bridging



Easy installation of services



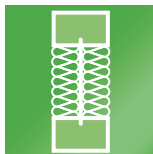
Lightweight. Easy to handle and install



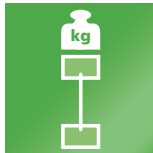
High dimensional stability through controlled moisture content



Available pre-insulated to form a solid cross section for ease of installation



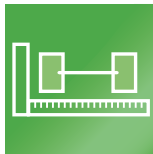
High load bearing capacity



Easy to machine

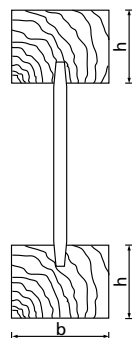


Strict manufacturing tolerances



Type	Flange b*h [mm]	Depth H [mm]	Weight [kg / m]
STEICO <i>joist</i> SJ45	45*45	200	2.9
	45*45	220	3.1
	45*45	240	3.2
	45*45	300	3.7
	45*45	360	4.2
STEICO <i>joist</i> SJ60	60*45	200	3.5
	60*45	220	3.8
	60*45	240	3.9
	60*45	300	4.3
	60*45	360	4.8
	60*45	400	5.0
STEICO <i>joist</i> SJ90	90*45	200	4.8
	90*45	220	5.1
	90*45	240	5.1
	90*45	300	5.6
	90*45	360	6.2
	90*45	400	6.4
STEICO <i>wall</i> * SW45	45*45	160	2.4
	45*45	200	2.7
	45*45	240	2.9
	45*45	300	3.3
	45*45	360	3.7
STEICO <i>wall</i> * SW60	60*45	160	3.0
	60*45	200	3.3
	60*45	240	3.5
	60*45	300	3.9
	60*45	360	4.3
	60*45	400	4.5
STEICO <i>wall</i> * SW90	90*45	240	4.8
	90*45	300	5.2
	90*45	360	5.7
	90*45	400	5.8

Available in lengths up to 13.5 m.



Lengths of up to 16 meters, depths from 160 - 400 mm and the option for pre-insulation combine to make the STEICO*construction* range a fully integrated construction system.

The STEICO*construction* Building System meets the requirements of:

- The Building Regulations
- NHBC Standards
- ZURICH Insurance
- Robust Details Ltd.



Operating site certified according to ISO 9001:2000

STEICO
natural building products

Your STEICO partner

www.steico.com