

THE BEST

IDEA THAT WE HAVE EVER HAD IS WHAT WE'D LIKE TO PRESENT HERE.

FOR IS IT NOT THE SIMPLEST

AND MOST NATURAL

THING IN THE WORLD FOR YOU TO WANT TO BE NICE AND WARM?

THAT IS WHY YOU NEED PERFECT

THERMAL INSULATION

TO MAKE YOU FEEL COMFORTABLE. AND THERE CAN NEVER BE ENOUGH OF THAT

IN THE WORLD.

ISOCELL

INSULATES NATURALLY



WHAT IS ISOCELL?

It is natural thermal insulation made of cellulose fibres. ISOCELL is made by recycling clean, homogeneous newspapers. The base material is therefore wood. The paper, which is supplied already sorted, is broken down into coarse fibres, mixed with mineral salts and ground in a mill*. The mineral salts protect ISOCELL from vermin attack and mould as well as making it resistant to rotting and fire.



* ISOCELL cellulose is made in Austria, Belgium, France and Sweden in plants that are among the most modern in Europe. Production is subject to the most rigorous internal and external quality controls in order to maintain regulatory compliance for the domestic and European markets.



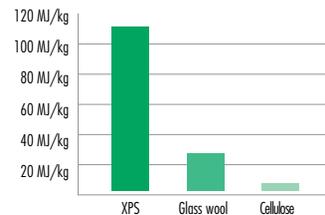
INSULATES RELIABLY





EFFECTIVE ENVIRONMENTAL PROTECTION

During its manufacture, ISOCELL cellulose is already helping to safeguard the environment. Its usage of primary energy is much lower in comparison to other insulating materials: The savings amount to one sixth compared to polystyrene and to one third compared to fibreglass.



Comparison of primary energy required for the production of insulating materials.



SAVES TIME AND MONEY

The long-fibre flock is notable for its extremely low thermal conductivity and its resistance to settling, even when the insulation is very thick. The special ISOCELL injection system permits seamless insulation without wastage. You thus save time and money.



OPTIMAL SOUND INSULATION

The tests prove it: In partition walls, ISOCELL cellulose insulation provides up to 7 dB more acoustic insulation than conventional fibre mats.



HIGH FIRE PROTECTION

Top marks: In fire resistance tests on building elements from F30 to F90, ISOCELL cellulose insulation came out on top compared to conventional insulation materials. With an EN classification of B-s2-d0, ISOCELL cellulose insulation achieved one of the best possible ratings for combustible insulation materials.



REGULATES HUMIDITY

ISOCELL cellulose insulation is able to store and release moisture without any loss of its insulating abilities. This regulates the indoor climate in a natural way and saves on heating costs. In refurbishments or flat roof systems without rear ventilation, ISOCELL acts as moisture buffer from a building physics point of view. Additionally – and in contrast to conventional fibre matting – air and wind tightness is considerably improved, particularly in timber constructions.

INSULATES SNUGLY



BEST THERMAL INSULATION VALUES

ISOCELL cellulose insulation is characterised by an especially low thermal conductivity (AT/EU: 0.039 W/mK). However, any insulation is only as good as its weakest point. But ISOCELL fills even the narrowest cracks and crevices. The result is a seamless mat of insulation free of thermal bridges.

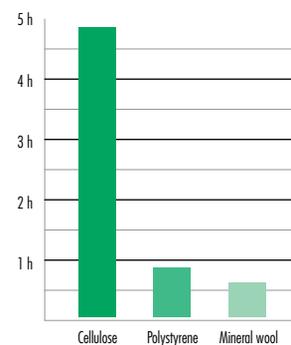
COLD

10H

OUTSTANDING HEAT PROTECTION

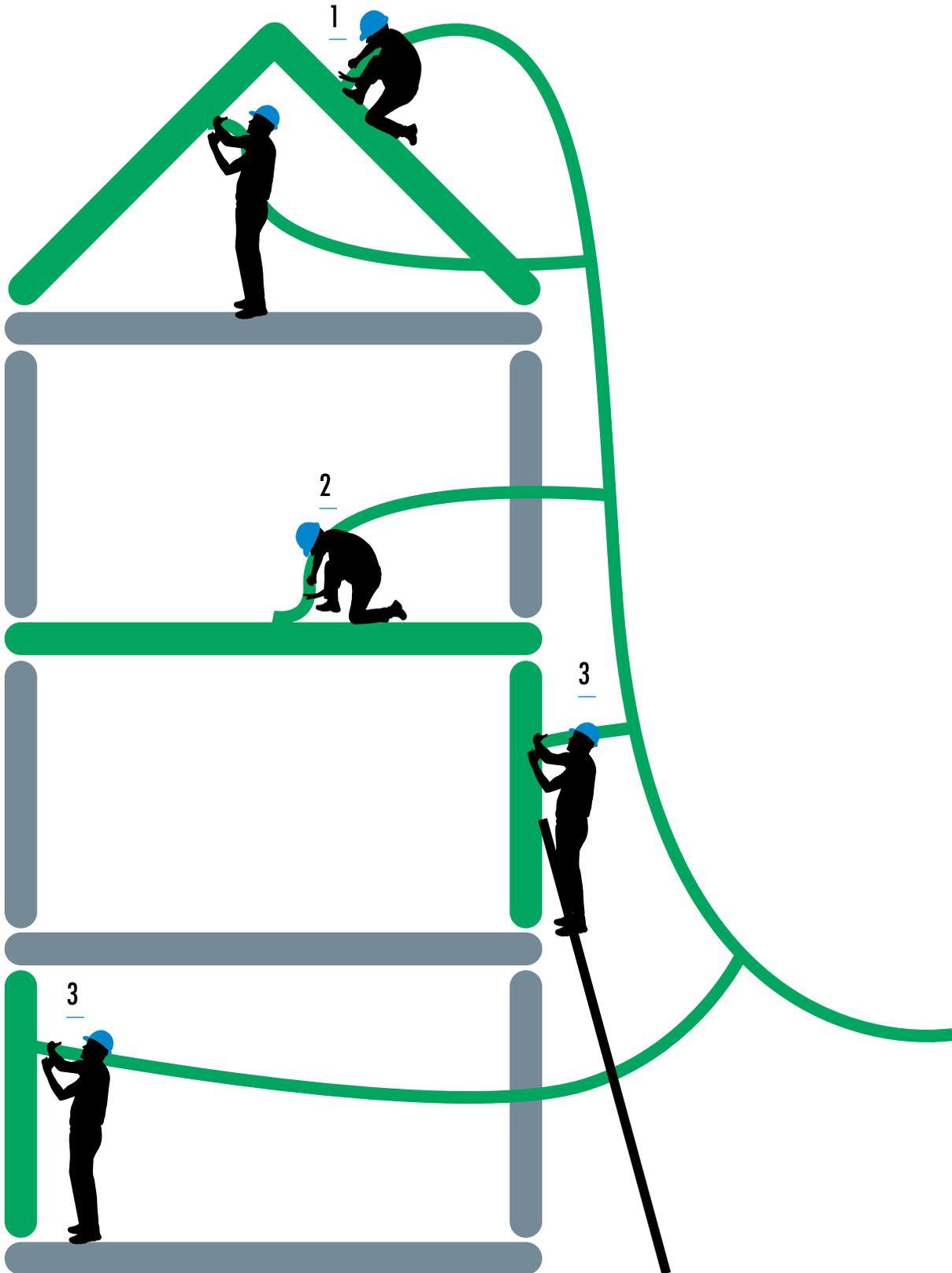
The high storage capacity of ISOCELL cellulose insulation means that the sun's heat penetrates significantly more slowly into the interior than for conventional insulating materials. Even attic rooms remain cool until far into the night, and you can sleep peacefully.

The heat protection can be calculated in a similar way as the U-value for thermal insulation. This quantity is called the phase shift (PHI). It indicates the time interval, in hours, required for a temperature wave to travel from the outside face of a component to the inside face. The greater the phase shift, the longer it takes for the interior of the building to warm up.



Delay in transmission of solar heat (= phase shift / PHI) for insulating materials in hours.

INSULATES VERSATILELY





1. INSULATION OF PITCHED ROOFS

While loft extensions are typically insulated from inside, attic rooms that are already inhabited can also be refurbished by placing the insulating material above the roof membrane from outside.



2. INSULATION OF TOP FLOOR

For unused attic spaces, we recommend the simple solution that involves open blowing of ISOCELL, while the Woodyfix system offers a walk-on solution that is similarly free of thermal bridges. Horizontal beam ceilings and flooring can be insulated using either injection or the open blowing procedure.



3. INSULATION OF WALLS

Cellulose insulation has already been employed for a long time in timber construction for insulating timber frame walls. Builders are increasingly opting for a breathable skin that uses a timber frame construction with ISOCELL cellulose insulation when renovating external walls.

Cost-effectiveness, excellent acoustic insulation values and the ability to adapt to uneven surfaces are just three of the many arguments in its favour.

Where internal insulation is concerned, ISOCELL scores well with its high capillary conductivity, whether it is applied by spraying, as in the Renocell plastered interior insulating system, or as a timber frame construction clad with panelling materials.

In addition to these applications, ISOCELL has also proven its worth as an insulating material for buffer storage, service shafts, vaulted ceilings, e.g. in churches, and as a spray-on visible acoustic insulation.



INSULATES PRACTICALLY



IT'S SO EASY

The injection specialist comes with his truck to the building site and bring along everything he needs: Blowing machine and cellulose fibres.

The builder, carpenter or plasterboarder has already prepared everything for him in advance. The blowing machine stays in the truck and is filled with cellulose there. The specialist brings the injection hose to the required position and gets cracking.

He operates the machine in the truck by remote control. The cellulose fibres mesh together inside the structure to form a seamless insulating mat. No matter whether floor, ceiling or wall – it's always one and the same product.



The ISOCELL team is available to assist you by phone as well as directly on site. Find out more at:

www.isocell.at

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