

Sheep wool: a natural insulator.

Healthy insulation can naturally do more.



ISOLENAWOLLE



Company Family.

“We are convinced that
manufacturing products from
sustainable raw materials is the
order of the day.”



Photo: Lehner family

Our family and our company are inextricably linked. Values such as sustainability, quality and health originate from one and the same fundamental attitude.

We consider it our duty to strengthen people's environmental consciousness and to show that, together, we bear responsibility for nature, the health of the people and the conscious use of sustainable raw materials. The key to this lies in the creative development of the sheep wool and the ways in which it can be used. We produce innovative, high quality products which fulfil an important function, have a sustainable character and protect our environment.



A natural building material.

Thanks to its properties, sheep wool is the only naturally-occurring insulation material which both retains heat and protects against heat, cold and damp. Sheep wool is tried-and-tested and has proven itself over thousands of years. It is the only insulation material whose creator – the sheep – constantly tests it for fitness for purpose in the most extreme climatic conditions. The wool has to fulfil its role of protecting the sheep in every imaginable weather combination.


The uniqueness of the sheep wool raw fibre becomes a material with unique construction physics properties, even in the end product. At ISOLENA, we have over 50 years of experience with sheep wool through our in-house carpet weaving mill. We therefore understand better than anyone else how to turn this uniqueness into a range of products which perfectly meet the requirements of modern construction.





The insulation material that can do more.



D Heat insulation

 Air purification

 Humidity regulation

 Sound insulation
Fire protection

 Sustainable

 **IONIC
PROTECT®**



- | | | |
|---|--|--------------------------|
| A Interior cladding | C Air sealing | E Wind sealing |
| B Installation level
ISOLENAWOLLE | D Main insulation level
ISOLENAWOLLE | F Facade cladding |



Nature has given us a unique, sustainable raw material whose use is the order of the day.

D Sheep wool is an outstanding insulator,

ISOLENAWOLLE achieves top insulation values by its very nature* and offers a unique combination of product benefits like no other insulation material.

* Thermal conductivity λ 0,0339 – 0,042 W/mK

creates a healthy climate in the room,

Sheep wool is able to purify the air in a room with a very short space of time, removing many odours and harmful substances, such as formaldehyde.

regulates humidity,

Sheep wool can absorb up to 33 % of its own weight in moisture, without compromising its insulating effect.

represents quality and safety and

ISOLENAWOLLE has been technically inspected many times, carries the international natureplus quality seal and holds the European Technical Approval (ETA).

is a sustainable raw material.

As a natural product, sheep wool is shorn twice a year and can be returned to the environmental cycle at any time.

IONIC PROTECT®, the new, innovative wool protection

is the most useful invention since virgin sheep wool to be used as insulation protection. Biocide-free, permanent and CUAP tested.



Sense the additional feel-good factor.

Sheep wool develops a feel-good climate by its very nature and is beneficial to your health. ISOLENA-WOLLE has been proven to be able to break down harmful substances, thus causing the natural air in the room to circulate.



Air
purification

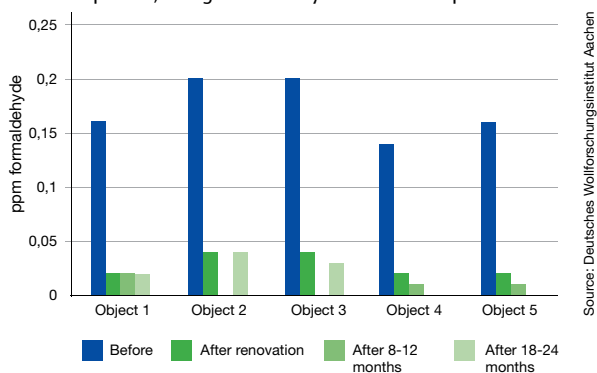


Invest in a healthy indoor climate. All you need to do is install ISOLENA sheep wool as close as possible in the internal space, such as in the installation levels, interior walls, false ceilings, inside the vapour retarder in the roof construction or in the acoustic levels.



Sheep wool removes harmful substances from the air.

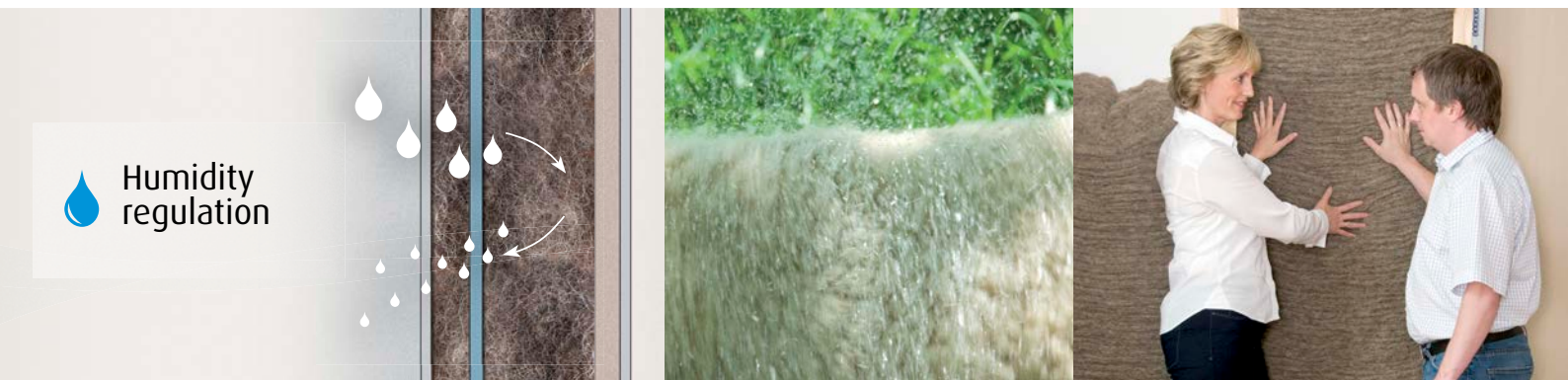
Minimising harmful substances in internal spaces through sheep wool, using formaldehyde as an example



The secret behind this excellent ability is keratin, the protein building block which makes up sheep wool. The molecules in the side branches of the amino acids are able to absorb and neutralise harmful substances such as formaldehyde. This is done through a chemical reaction in which the harmful substances are connected to these molecules and converted.

Bring balance to your interior humidity.

Damp walls are an irritant to health and decrease your sense of well-being. ISOLENAWOLLE can absorb a third of its own weight in moisture, without compromising its insulation quality.

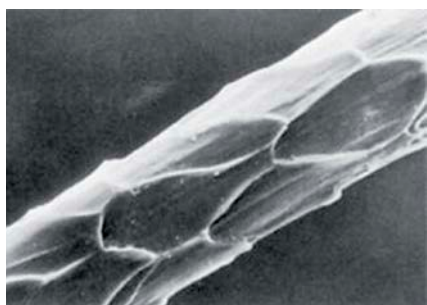


ISOLENAWOLLE has a hygroscopic effect. This means that it adapts very quickly to the interior humidity surrounding it and absorbs moisture when the humidity is higher than the compensatory moisture in the wool. If the air in the room is too dry, it releases the moisture again.



The hydrophobic effect lasts a lifetime.

Sheep wool can absorb up to 33% of its own weight in moisture, without compromising its insulation properties and without being 'wet'. It remains full and has no negative impact on the structure. This is down to the unique structure of the protein fibres: they are **water resistant**, or hydrophobic: a property which is a great advantage for critical installation situations, such as when greater amounts of condensation form. And sheep wool offers yet another advantage: as a protein fibre, it does not form a breeding ground for mould. Sheep wool is therefore protected against mould by its very nature.



Sheep wool under the microscope.

Set benchmarks when it comes to safety.

When it comes to fire protection, ISOLENAWOLLE offers the highest level of safety thanks to its high flash point. It requires no flame inhibitor and therefore generates no poisonous gases in the case of fire.


Fire protection classification:

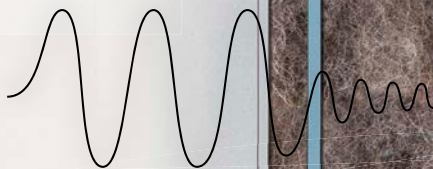
Classification of the fire behaviour of an acoustic ceiling element:

- Perforated plasterboard panel, 12 mm thick, perforation 18/18-5 mm diameter
- Isolena Optimal, thickness 40 mm, density 18 kg/m³
- 60 mm rear ventilation

Compliant with Austrian standard EN 13501-1, the construction product described is classified B s1, d0 with regard to its fire behaviour. In general, ISOLENAWOLLE is thoroughly inspected by the accredited authorities.



 Sound insulation
Fire protection



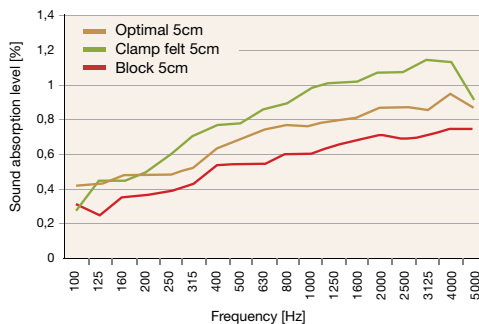
ISOLENAWOLLE





Outstanding sound insulation.

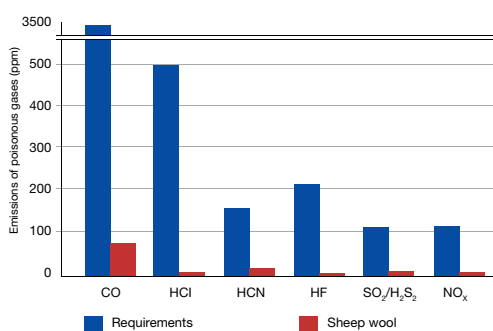
Sound absorption properties



Sheep wool offers excellent sound absorption properties for many acoustic situations with high requirements. Equip acoustic ceilings with the special ISOLENA acoustic nonwovens or simply with ISOLENA sheep wool felts so that you can hold your important meetings undisturbed and with the greatest possible concentration.

It is for good reason that ISOLENA acoustic products are increasingly being used by modern architects, building physicists and clients in schools, office buildings and event spaces, as well as in private houses, as an acoustic insulation material in installation levels and false ceilings.

Decomposition of harmful substances in poisonous gases



Source: Benisek Phillips, J. Fire Science, edition 1 Nov./Dec. 1983

Top fire protection.

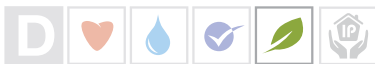
The natural fibres of the sheep wool have a self-combustion temperature of 560 – 600°C. This is around twice as high as that of wood (270°C). It also melts away from a heat source without dripping. Thanks to their special production process, ISOLENA sheep wool products need no additional flame inhibitor and achieve outstanding values in the European and Swiss standard fire tests.

Put your trust in a sustainable insulation material.



SOLENAWOLLE is the insulation material of today and tomorrow for environmentally-conscious people who think about ecological concerns. After all, only the wool of living sheep is suitable for the production of insulation materials with such high quality standards. Only this is and remains so permanently elastic, full and full of life, just as it needs to be to fulfil the many roles of an insulation material.

Our sheep wool comes direct from nature; more specifically, from Alpine sheep from Austria, Germany and Switzerland. As the only natural insulation material, it is 100% integrated into the cycle of nature.



The test mark for sustainable construction materials: nature plus®

International society for sustainable construction and living – natureplus e.V.

The natureplus® quality mark represents health compatibility, environmentally friendly production, the protection of finite resources, and fitness for purpose. Products which carry this mark consist predominantly of raw materials which are sustainable or which have been extracted in a nature-friendly way. Demanding inspections and the strictest threshold values in Europe for substances which are hazardous to health guarantee that the certified products are harmless.

Can be used in a wide variety of ways.



Gabled ceiling:
Premium / Optimal / Block
Klemmfilz*



Roof:
Premium / Optimal
Klemmfilz*



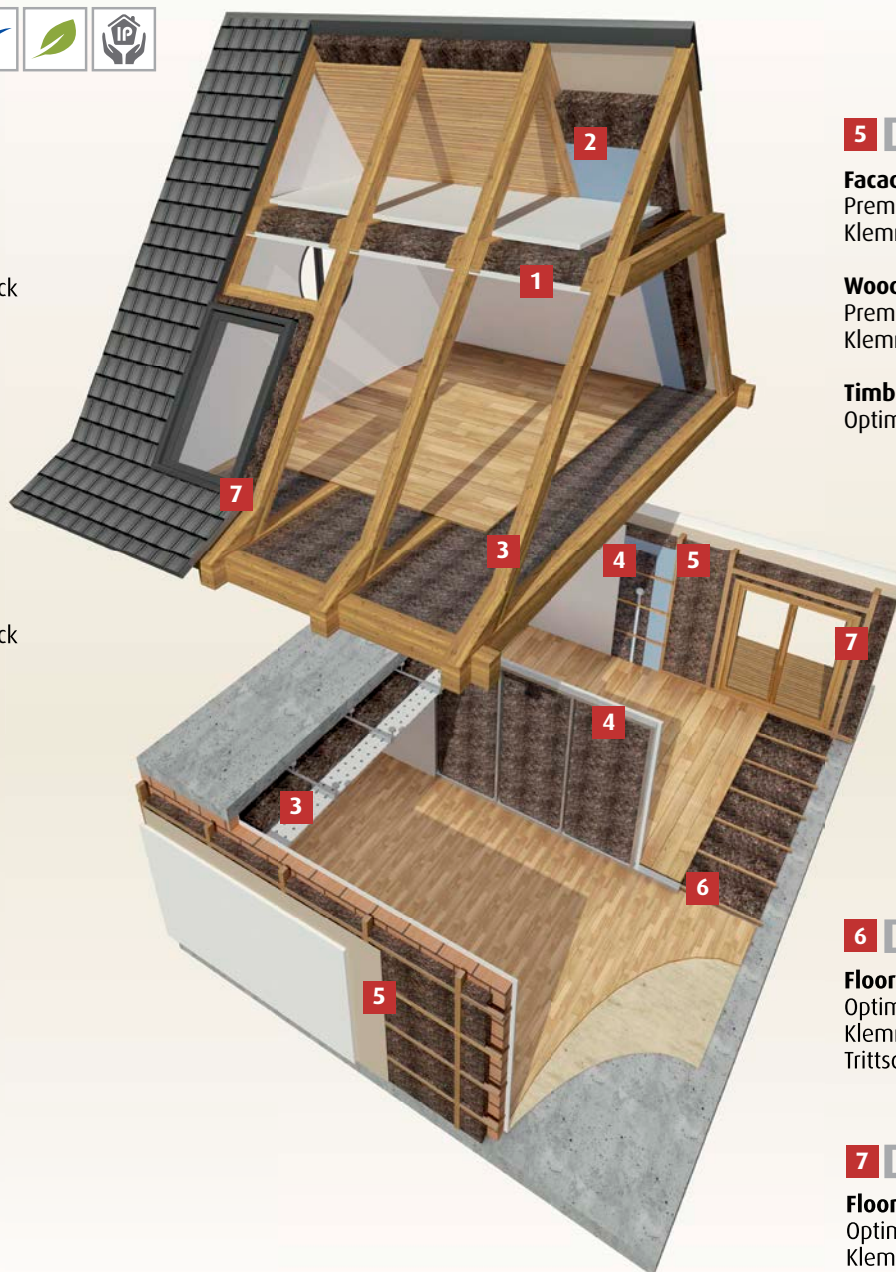
Ceiling:
Premium / Optimal / Block
Klemmfilz*

Acoustic ceiling:
Optimal / Klemmfilz*
Akustik-Aktiv-Filz



Wall:
Premium / Optimal
Klemmfilz*

Installation level:
Optimal / Klemmfilz*



Facade:
Premium / Optimal
Klemmfilz*

Wooden frame construction:
Premium / Optimal
Klemmfilz*

Timber:
Optimal / Block



Floor:
Optimal / Block
Klemmfilz* / Trittschallfilz
Trittschalldämmung



Floor:
Optimal / Block
Klemmfilz* / Trittschallfilz
Trittschalldämmung

* Extraordinary insulation effect and sound absorption

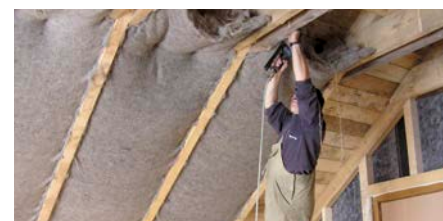
Wall installation:



Floor installation:



Roof installation:



ISOLENA product overview.



ISOLENA Premium

New technology – for fast installation in high insulation strengths.

Raw density:	20 kg/m ³
Thermal conductivity:	tr 0,0359 W/mK



ISOLENA Optimal

Standard product with support felt for easy fastening.

Raw density:	18 kg/m ³
Thermal conductivity:	tr 0,0385 W/mK



ISOLENA Block

Light, good value sheep wool nonwoven.

Raw density:	14 kg/m ³
Thermal conductivity:	tr 0,042 W/mK



ISOLENA Klemmfalz

Extraordinary insulation effect and sound absorption.

Raw density:	30 kg/m ³
Thermal conductivity:	tr 0,0339 W/mK



ISOLENA Trittschalldämmung

Footfall sound insulation. The original, 3.5 mm, with sodium kraft paper. Under floating floors, footfall sound improvement up to 21 DB.

Raw density:	100 kg/m ³
Footfall sound improvement:	bis 21 DB



ISOLENA Trittschallfilz

Footfall sound felt. 9 mm, for full-area laying under floors and ceilings. Also suitable as footfall sound felt for edge strip or for laying under flooring buffer beams.

Raw density:	100 kg/m ³
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ISOLENA Fugenband

Sheep wool filler for thermal insulation of hollow spaces around windows and doors.

VPE:	200 lfm
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ISOLENA Lose Wolle

Loose wool fleece for fitting joints and gaps.

VPE: Sacks of	5 kg
or	10 kg



ISOLENA Akustik-Aktiv-Filz

Inside air filter and sound absorber.

Raw density:	55 kg/m ³
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Physical properties

Thermal conductivity:	0,0339 - 0,042
Combustibility class:	E s1, d0 / Bs1, d0
	BKZ in CH 5,3
* Flammability of an acoustic ceiling element	B s1, d0
Flash point:	570° C – 600° C
Water vapour diffusion permeability:	1 – 2
Wool protection:	IONIC PROTECT®

Perforated plasterboard panel 12 mm thick, perforation 18/18-5 mm diameter, Isolenawolle Optimal (thickness 40 mm), 60 mm rear ventilation compliant with Austrian standard EN 13501-1

Acoustic ceiling:



Facade installation:



Window installation:



Greatest possible safety in handling.



- Inspection of all production batches by an authorised external inspection laboratory
- Wool equipped with wool protection IONIC PROTECT®: CUAP tested
- Internal quality inspection: Weight, dimensions, density and voluntary inspection in accordance with the criteria of the ETA inspection plan (European Technical Approval)
- Unique ISOLENA density guarantee
- Every square metre of ISOLENA insulation material carries our personal certificate; we guarantee the best quality and processing for your well-being.



ISOLENA sheep wool insulation is delivered in ready-to-use, custom sizes, and is easy to use. There is no need for a dust mask or protective clothing. Sheep wool is very easy to use and is gentle on skin and health.

ISOLENA provides premium quality insulation materials for facades, floors, walls, ceilings and roofs for new constructions and renovations. The Premium insulation rolls with new stability and high insulation strengths can save you even more time – single-layer up to 300 mm with no artificial additives. The new stability of the Premium insulation rolls saves time in installation.

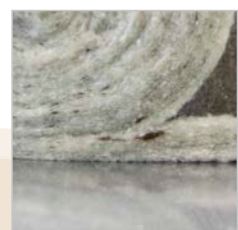
Ask about our special products, such as the Isolen window braid, buffing wheels, blockhouse sealing strips, aluminium lining, etc.



ISOLENA
Buffing wheel



ISOLENA
Window braid



ISOLENA
Loghouse sealing strips



Outstanding.



**Energy
Globe
Award**



It happens to the best of us.



Blockhouse, Erlen, Switzerland

Client:	Detached house – blockhouse Erlen, Switzerland
Executor:	Hans Koster Blockhausbau, CH-8586 Ennetach
Use:	Sheep wool between the log planks and all other insulation levels



Höfler house

Client:	Höfler family
Executor:	Wooden facade: Buchner, 4273 Unterweißenbach Plaster facade: Kern, 4273 Unterweißenbach
Use:	Sheep wool insulation in the facade



Miesenberger detached house

Client:	Miesenberger family, Neumarkt/Mkr.
Executor:	Böhmerwald-Holz reg. GenmbH, 4134 Putzleinsdorf/4171 Auberg, Upper Austria
Architect:	Schneider & Lengauer, 4212 Neumarkt i. Mühlkreis
Use:	Sheep wool insulation in roof and walls



Kindergarten Mondsee

Client:	Montessori Waldkindergarten 5310 St. Lorenz
Architect:	Architekt DI David Ebner
Executor:	Jakob Ebner BauGmbH 5310 Mondsee
Use:	Entire project executed with sheep wool insulation

“16 years ago, I built the first organic house; breathable and without plastic. The pleasant handling, the naturalness, the climate of well-being and the moisture behaviour of the sheep wool thoroughly impressed me.”

Franz Peter Kunz



Bregenzer Festspielhaus

Client:	Office of State Capital Bregenz
Architect:	Dietrich / Untertrifaller Architekten ZT GmbH, 6900 Bregenz
Executor:	Trockenbau München GmbH
Use:	Sound insulation (acoustic ceiling)



Company building, Multikraft

Client:	Multikraft (Stumpflhof), Pichl bei Wels
Architect:	Architekturbüro ARKADE ZT GmbH, 4170 Haslach
Executor:	Hema Holzbau Henriette Kuttler 4633 Kematen am Innbach
Use:	Sheep wool insulation in roof, floors, (some) walls

“My focus was on a comfortable and healthy climate to live in. Furthermore, I was impressed that, when disposed of, ISOLENAWOLLE can be returned to the environmental cycle.”

Norbert Miesenberger, client



Passive houses/detached houses, Vienna

Client:	Aichholzer family
Architect:	MAGK architektur aichholzer klein ZT OG, 1060 Wien
Executor:	Zimmerei Proksch-Weilguni OEG, 2084 Weitersfeld
Use:	Sheep wool insulation in walls and ceiling



District Centre Ludesch – House of the Future

Client:	Gemeinde Ludesch 6713 Ludesch
Architect:	Architekturbüro DI Hermann Kaufmann 6858 Schwarzach
Executor:	ARGE Wucher Bauunternehmen GmbH & CO KG and SUTTER Holzbau GesmbH 6713 Ludesch
Use:	Sheep wool insulation in interior walls, sound insulation (acoustic ceiling)



Felben-Wellhausen School

Use:	Sheep wool insulation in ceilings and walls for air purification and renovation to eliminate harmful substances
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“We want to build and manage houses like plants and towns as a part of nature.”

Philipp Kaufmann
Founding President of the Austrian Sustainable Building Council

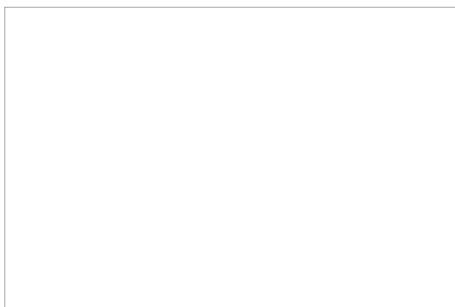
Climate Protection Supermarket Linz-Froschberg

Client:	Spar Klimaschutz Supermarkt Linz-Froschberg
Architect:	Arch. DI Reinhold Kroh, 4040 Linz
Executor:	Secco Construct GmbH 4492 Hofkirchen im Traunkreis
Use:	Sheep wool insulation in walls





Advice from:



ISOLENAWOLLE

Healthy insulation can naturally do more.

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