

Responsibility and Foresight

# natural insulation healthy living

At ISOLENAWOLLE, we care for people and for nature.

That is why it is so important to us to have our products tested by authorized bodies – in accordance with current standards – simple and transparent.

We stand for top quality – namely 100% sheep's wool without bonding agents or supporting mesh.

Insulating mats you can rely on in terms of their shape, size and weight. Trust is good, control is better. So we re-weigh every roll. Every ISOLENAWOLLE customer gets their own documentation about wool type, weight and size.

We take great care to choose the best Isolena insulating wools. Only bulky wools with pesticide-free wool protection **Ionic Protect®** are processed.

Such a wonderful natural product is fun.

Our **ISOLENAWOLLE** team stands for dedicated professional advice and punctual delivery.



*"We are confident that  
manufacturing products from  
renewable raw materials is the  
order of the day."*



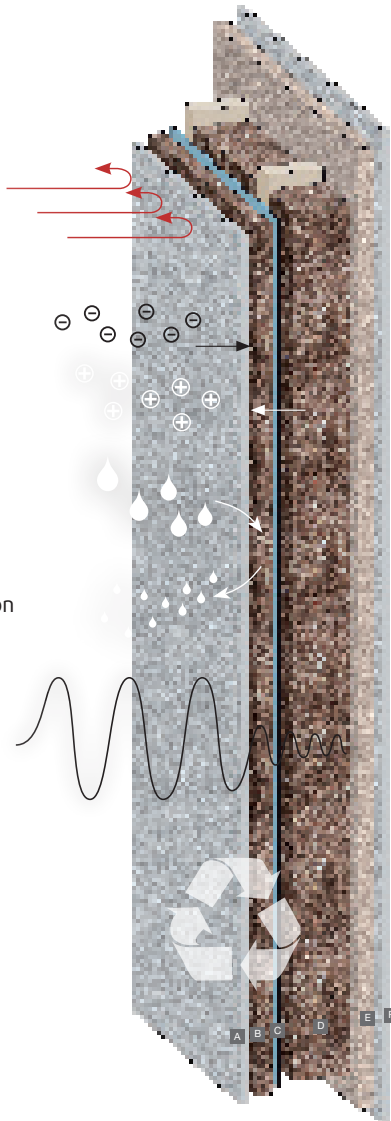
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Marketing

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**Wool — an investment that pays off in the long run!**

## D Heat insulation



## Heart Air purification

## Water drop Humidity regulation

## Checkmark Sound insulation Fire protection

## Leaf Sustainable



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

**D Sheep wool is an outstanding insulator,** ISOLENAWOLLE achieves top insulation values by its very nature\* and offers a unique combination of product benefits, unmatched by any other insulation material.

\* Thermal conductivity  $\lambda_{tr}$  0,0339 – 0,042 W/mK

## Heart creates a healthy climate in the room,

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

## Water drop regulates humidity,

Sheep wool can absorb up to 33% of its own weight in moisture, without losing any of its insulating properties.

## Checkmark represents quality and safety and

ISOLENAWOLLE undergoes numerous technical inspections, carries the international quality seal natureplus and has received the European Technical Approval (ETA).

## Leaf 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.

## IP IONIC PROTECT®, the new, innovative wool protection

is the most useful invention since virgin sheep wool has been used as insulation material. Biocide-free and EAD/CUAP tested.





# Air purification

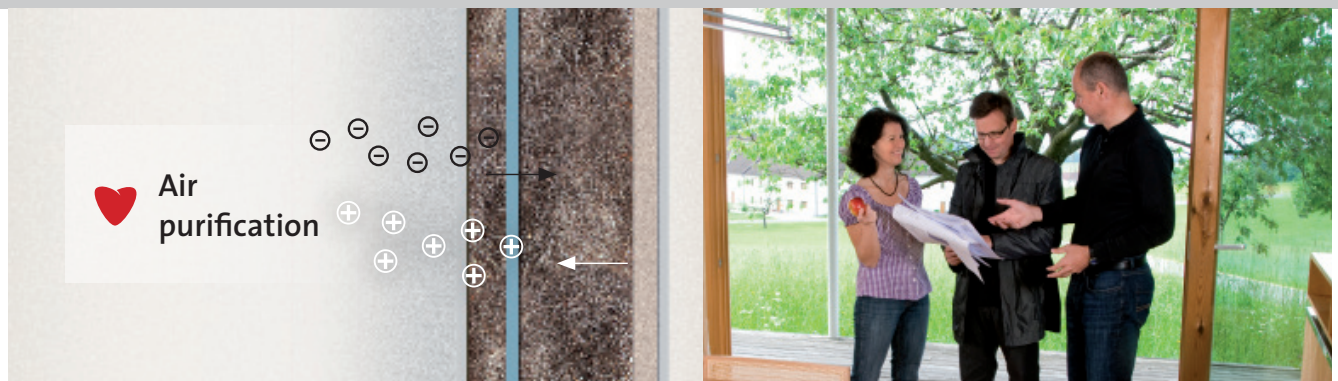
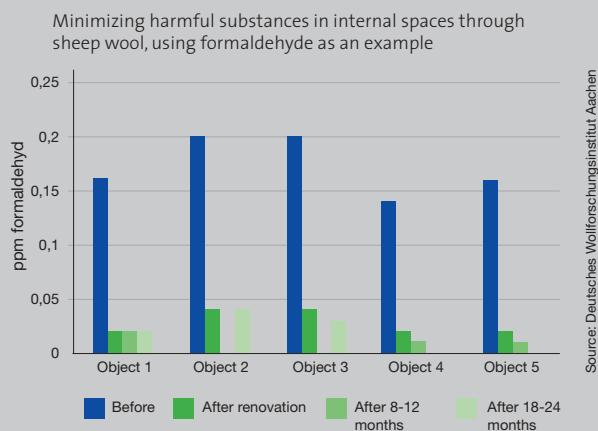
**Sense the additional feel-good factor.**

Sheep wool generates an agreeable climate by its very nature and is beneficial to your health. ISOLENAWOLLE has been proven to be able to break down harmful substances, thus causing the natural air in the room to circulate.

## **Sheep wool removes harmful substances from the air.**

Invest in a healthy indoor climate. All you need is to install ISOLENAWOLLE sheep's wool as close as possible to the interior, such as in the installation levels, interior walls, or false ceilings, inside the vapor barrier in the roof structure or in the acoustic levels.

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 neutralize harmful substances such as formaldehyde. This is done through a chemical reaction in which the harmful substances are connected to these molecules and converted.





# Humidity regulation

Bring balance to your interior humidity level.

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 losing any of its insulation properties.

**The hydrophobic effect lasts a lifetime.**

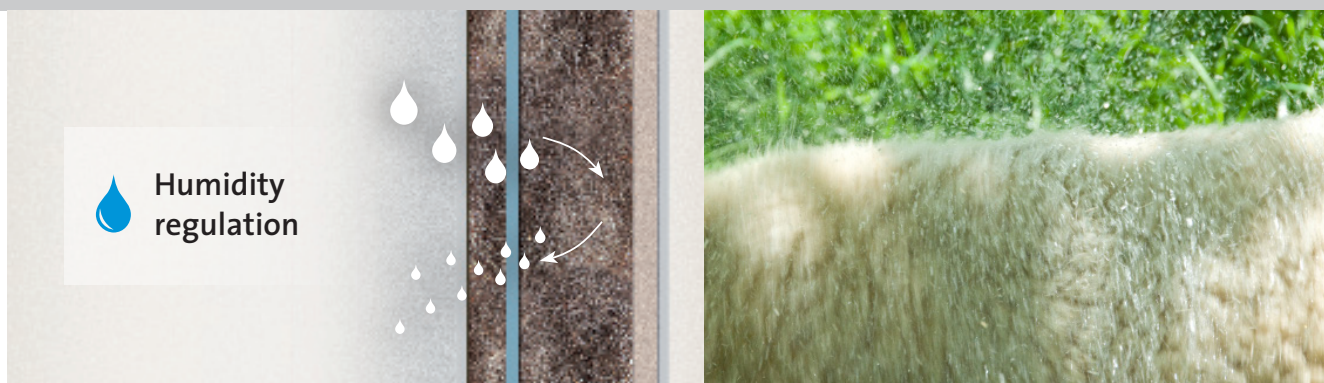
At the same time, ISOLENAWOLLE has a hygroscopic action, which means that it adapts very quickly to the surrounding humidity. It absorbs moisture if the atmospheric humidity is higher than the wool's equilibrium moisture content and if the air in the room is too dry, it releases the moisture again.

Sheep wool can absorb up to 33% of its own weight in moisture, without compromising its insulation properties and without becoming "wet". It remains full and has no negative impact on the structure. This is down to the unique structure of the protein fibers: they are **water-resistant**, or hydrophobic. A characteristic that is highly advantageous for critical installation situations, for instance where condensation is more likely to form.

And sheep's wool offers yet another advantage: as a protein fiber, it does not create any breeding grounds for molds. Sheep's wool therefore does not need any mold protection.



Sheep wool under the microscope







# Sound insulation & fire protection

Set benchmarks when it comes to safety.

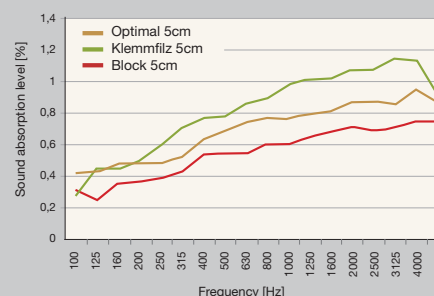
When it comes to fire protection, ISOLENAWOLLE offers the highest level of safety thanks to its high flash point. It requires no flame retardant and therefore generates no poisonous gases in the case of fire.

## Excellent sound insulation.

Sheep wool has very good sound absorption properties and is adapted for many demanding acoustic situations. Equip acoustic ceilings with the special ISOLENAWOLLE acoustic nonwovens or simply with ISOLENAWOLLE sheep wool felts and hold your important meetings undisturbed and with everyone's full concentration.

There is a reason why ISOLENAWOLLE acoustic products are increasingly being used by architects, building engineering physicists and owners with a sense of responsibility, whether in schools, office buildings and event locations or in private homes as acoustic insulation materials in technical spaces and drop ceilings.

Sound absorption properties

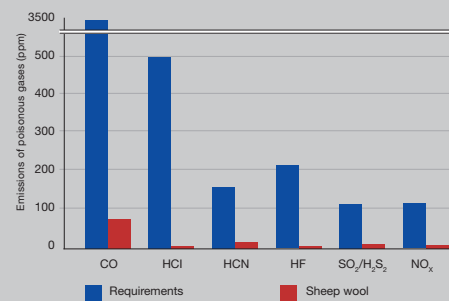


## Top fire protection.

The natural fiber of sheep's wool has an auto-ignition temperature of 560 - 600°C. This is about twice as high as wood (270°C). Furthermore, it melts away from the source of heat without dripping.

ISOLENAWOLLE sheep's wool products do not require any additional fire retardants and achieve outstanding results in European and Swiss standard fire tests.

Decomposition of harmful substances in poisonous gases



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





# Renewable

Put your trust in a sustainable insulation material.

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

## The seal for sustainable construction materials: nature plus®

The International Association for Sustainable Building and Living - naturplus e.V.

The natureplus® label stands for health compatibility, environmentally friendly production, the protection of finite resources, and fitness for purpose. Products which carry this label 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 don't harm your health.

ISOLENAWOLLE presents the ideal insulation material for the present and the future for all environmentally conscious people. That's because only the wool of live sheep is suitable for manufacturing insulation materials with such high quality standards. Only this material remains as elastic, fluffy and vital as it has to be to perform its many tasks as an insulation material.

Sheep's wool also offers yet another advantage: as a protein fiber, it does not present any breeding grounds for molds. Sheep's wool therefore does not need any mold protection.





# Ionic Protect®

...the new innovative wool protection

Just in case.



**Ionic Protect**® is the most valuable invention since shorn sheep's wool started being used as an insulation material. Pesticide-free and EAD/CUAP-tested.

The process developed by ISOLENAWOLLE is called **Ionic Protect**® and is patent-protected. It consists of a plasma ion treatment of wool fibers with the aim of being able to protect these from all negative influences that it may be exposed to in the building.

**Ionic Protect**® means permanent plasma ion-based pesticide free protection for ISOLENAWOLLE.

This unique treatment method is only carried out by ISOLENAWOLLE and gives sheep's wool all the properties it needs to constantly function as an insulation material. Its functionality has been tested and verified in laboratories (EAD/CUAP test).

Another milestone on ISOLENAWOLLE's path to sustainability!

