

The impression of newly fallen snow





Waterschap Rivierenland
Architect: AGS Architecten & Planners B.V. - Heerlen.
Photographer: Peter Bliet

New technology serving people

As the leading acoustic ceiling company, for thirty years Ecophon has consistently been paving the way in acoustic ceiling surface development. Our work is constantly focused on the fundamental challenge of developing an acoustic ceiling surface – of finding the perfect balance between material resistance and sound energy permeability and, not least, of giving the surface an attractive appearance. Over the years we have been at the forefront in developing new properties for acoustic ceiling surfaces and we are now able to offer the most advanced solutions in this field.

Akutex™ surfaces are based on unique technology

Our most versatile acoustic ceiling surface is the painted surface Akutex. This porous surface allows almost 100% of the sound energy to penetrate into and be absorbed by the glass wool core. The pores are very small so, from the hygienic point of view, the surface is compact and smooth, dirt-repellent and easy to clean. Thanks to the surface structure of Akutex, reflectance of both incident daylight and artificial light is excellent. Light is reflected diffusely and evenly, without any dazzle or glare, and this ensures efficiency where indirect lighting is concerned. The resistance of the Akutex surface also means that the tiles are robust and well-suited for on-site handling.

Ecophon's Akutex surface technology has been developed with the support of several research institutes. Architects all over the world value the technology, seeing it as an important element in room design, resulting in functional as well as emotional comfort for end users.

Akutex™ T and Akutex™ FT

There are two types of Akutex surfaces from Ecophon – the tried and tested Akutex T and the new Akutex FT, with a more modern, sophisticated look – inspired by the Scandinavian winter and with improved functional features.

The true character of pure light

One of the most important aspects of an acoustic ceiling surface is of course its appearance. An acoustic ceiling is often the largest continuous surface in a room, influencing the entire feel of the interior. Sometimes the ceiling is a visual design element, and sometimes a natural, timeless background but, whatever the role of the ceiling, it is the surface that is visible and so its interaction with the room in general is of fundamental importance.

Akutex™ T – tried and tested

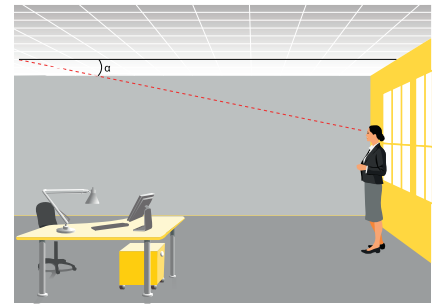
The Akutex T surface has been used for many years now and it serves extremely well in many different types of buildings. Its classic look has set a standard that many have tried to emulate. Ceiling tiles with an Akutex T surface have long been the leading solution on the market, and they are still very popular among architects all over the world.

Akutex™ FT – modern and sophisticated

The new surface from Ecophon constitutes a significant step in the acoustic ceiling surface evolution process. The technology has now been taken one stage further, offering a surface with a completely new look as well as improved functional properties. The painted Akutex FT surface has improved scratch and gloss resistance with a superior retro-reflection coefficient, so that light is diffused comfortably. The gloss value is less than 1, ensuring a soft, matt appearance from every angle. Since the surface technology allows a maximum of light to enter the room without causing colour bleeding from outside or inside, both the surface and the light retain their true character. The surface has visual integrity, giving the room greater definition. This feature enables Akutex FT to meet new architectural demands, such as for modern buildings with open spaces, large windows and the use of strong colours on walls.

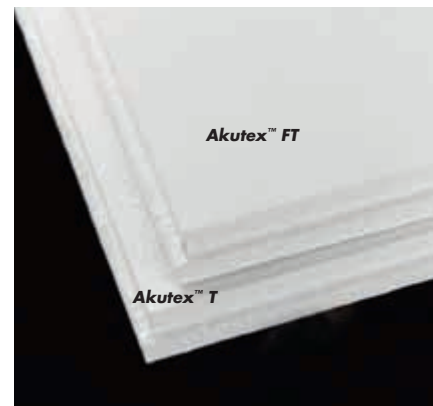
Inspired by the Scandinavian winter

The Akutex FT surface is matt and smooth, with a lime-washed, natural look – almost like hand-made paper or newly fallen snow. Appropriately, Akutex FT's white surface has been given the name White Frost.



The retro-reflection coefficient

The usual methods of measurement (light reflection and light diffusion) do not totally explain how a ceiling surface is perceived. The retro-reflection coefficient helps to complete the picture. This coefficient is derived from a method for measuring the amount of light reflected from the painted lines on roads; how much light is reflected back to the driver when driving on a dark road with the headlights on. By upending this concept and taking measurements on the ceiling we get information about how light the ceiling surface appears to be. A high retro-reflection coefficient indicates that the ceiling appears light and that the surface has visual integrity.



Gloss and whiteness

An Akutex surface ensures low gloss. Akutex T has a gloss value below 5 when measured at 85° (ISO 2813, ASTM D 523 and DIN 67530), and the new Akutex FT has a gloss value of less than 1. Akutex FT also has another whiteness, and the colour code is NCS S0500-N.



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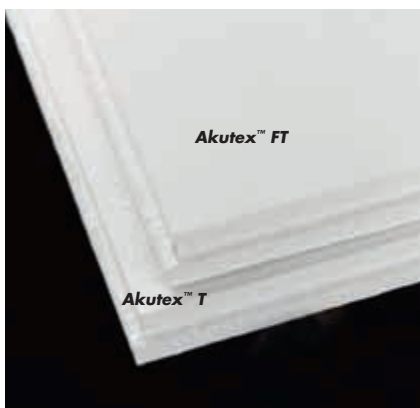


The tranquil comfort of subdued sound

The amount of sound energy absorbed by an acoustic ceiling is related to the board's thickness, density, surface porosity and structure. Glass wool is extremely suitable for this purpose. The surface is of vital importance for a room's acoustics, as it affects the degree of sound energy that is transmitted or reflected.

The Akutex™ surface is a vital element

The Akutex surface is based on a focused development process, aimed at finding the perfect structure and porosity to deal with sound energy in the frequency span decisive for the acoustic environment. The porous surface has a unique ability to transmit a considerable amount of sound energy to the glass wool core, thus preserving the absorbers' ability to reduce reverberation and sound levels, significantly increase the clarity of speech and prevent sound propagation in open plan rooms, thus achieving Room Acoustic Comfort™. The Akutex surface is one part of a solution involving an entire product and its functional benefits, all working together to allow the acoustic ceiling system to make a marked improvement in the indoor environment.



An acoustic ceiling is never better than its surface.

The Akutex FT surface has optimal properties for creating sound energy permeability. Compared to Akutex T, the average pore size is less than half, and the number of pores is doubled. During the visual upgrading of the Akutex FT painted surface, we have succeeded in maintaining all of Akutex T's excellent acoustic properties.

Akutex™ T

The porous surface allows almost 100% of the sound energy to penetrate into and be absorbed by the glass wool core. Akutex T is a crucial element in the system constituting a class A absorbent.

Akutex™ FT

Compared to Akutex T, the average pore size is less than half, with the number of pores being doubled, but the superior acoustic properties are still retained. The new technology gives improved production precision, with reduced variation in surface performance. This decreases the difference between calculated and measured room acoustic values.

Exceptional sheerness year after year

There is no doubt that, with the end-users' functional and emotional wellbeing in mind, acoustic comfort and a positive ambience are of major importance in a room. For people who spend a lot of time there, these aspects can make a considerable difference to the quality of life. The Akutex surface technology is one part of a whole that ensures the best possible comfort for end-users.

The Akutex™ surface is hygienic and safe

For comfort and peace of mind, it is reassuring to know that, healthwise, all the materials used are hygienic and safe. Here, the Akutex surface technology demonstrates optimal qualities. The unique technology ensures that dust and dirt do not adhere to the surface, so cleaning involves a minimum of effort and cost. There are no harmful emissions from the material, neither in the early nor later stages of the ceiling's life. Ecophon products bear the Indoor Climate Label, the Finnish M1 emission classification of building materials, and they are recommended by the Swedish Asthma and Allergy Association.

Akutex™ FT – the long-life surface

Increased production precision gives Akutex FT a great many advantages. With the smaller pores, the product is even more dirt repellent, making the surface easier to clean. It is also less impactsensitive in different environments and this, together with the excellent cleaning properties, lengthens its service life significantly.



**Recommended
by the
Swedish Asthma
and Allergy Association**







NääS Fabriker hotell
Photographer: Ulf Celander

The absolute assurance of sustainability



Ecophon works constantly to improve existing surface properties and to develop new ones. This is a key priority for us, as the surface has such significance from the visual as well as the functional point of view. We strive continuously in every possible way to improve the prerequisites for all end-users.

Environmental contribution

Our mission for the future also has a wider perspective. Management of the earth's resources is now one of the most important environmental issues. This calls for eco-awareness, for knowledge and for a determination to work towards improvement. Concern for the environment is thus a central aspect in all decision-making at Ecophon.

-25%

Energy savings of 25%

In the Akutex™ FT production process, we have managed to reduce our energy consumption by 25%, which we regard as being a good contribution and a step in the right direction. The surface has also been developed to meet the requirements for total recycling. When using indirect lighting, the high light reflection factor of the Akutex surface means that fewer light fittings need to be installed while still achieving the recommended light levels. All Ecophon products with the Akutex surface carry the Nordic Swan eco-label. This standard includes both external and internal environmental aspects that cover the whole life cycle perspective, from raw material to recycling.



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