Troldtekt® acoustic solutions since 1935

The ideal choice for ceilings and walls

Calm and characterful interiors with Troldtekt

Modern architecture is often characterized by the use of hard, smooth surfaces in large, high-ceilinged spaces. These elements add many good qualities, but it is also the perfect recipe for poor acoustics.

The short explanation for this is that the reverberation time is too long. What is needed is one or more of the room's large surfaces to be covered with an acoustic solution that can both significantly reduce the reverberation time and contribute positively to the interior design.

An audible difference
With the right ceiling and wall cladding, you can swap noise and stress for calm and comfort.

Troldtekt acoustic panels manufactured from Danish wood and cement contribute to a healthy indoor climate free from harmful chemicals – and you can choose from a wide selection of designs and colours for your specific project.

In this brochure you will find inspiration and facts about the Troldtekt acoustic solutions.

Enjoy your reading!

Issue: 1st edition
Version 01, Februart 2025
Publisher: Troldtekt A/S
info@troldtekt.dk

Editors:
Troldtekt A/S

Layout:
Tommy Kosior

Part of the ambitious Kingspan Group

Since 2022, Troldtekt has been part of the Kingspan Group, the global leader in high-performance insulation and building envelope solutions. Kingspan's mission is to accelerate a net-zero emissions future built environment with the wellbeing of people and planet at its heart.

The Group's five operating divisions manufacture a range of high-performance products for energy efficient, low carbon and healthy buildings, enabling savings in energy, carbon and water usage in buildings, and supporting better performance and value for those who own, work and live in them.

The Group had revenues of €8.1bn in 2023, employs over 22,000 people globally, and has more than 212 manufacturing sites and a presence in over 80 countries worldwide.

A simple recipe for good acoustics

Troldtekt acoustic panels are made from Danish wood and cement. A new cement type makes it possible to choose acoustic panels with less CO_2 impact.

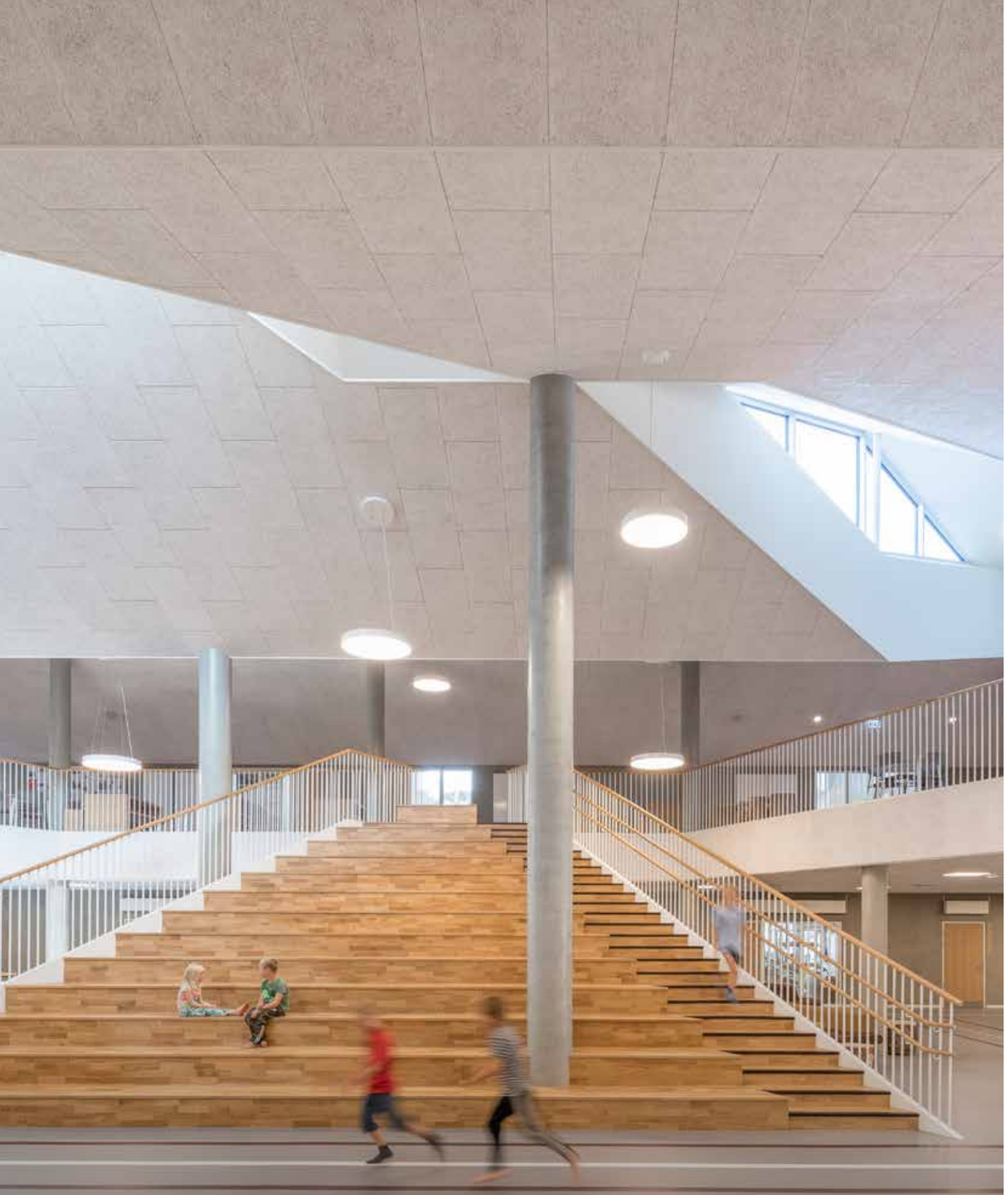
The recipe for Troldtekt acoustic panels is as simple as it is viable and has been followed since 1935. By mixing wood and cement, we create cement-bonded wood wool, which combines the strength of cement with the natural properties of wood.

Wood
The wood in Troldtekt acoustic panels is Norway spruce from Danish forests. In our production we only use certified wood, and we are certified according to the two standards for responsible forest management: FSC® (FSC®C115450) and PEFC. This means that we supply certified acoustic panels made from wood that can be traced back to responsibly managed forestry.

Cement
The cement is what gives Troldtekt acoustic panels their strength and fire-protective properties without harmful chemicals – benefits that would be difficult to achieve with other binders.

We also offer Troldtekt acoustic panels containing FUTURECEM™ cement. FUTURECEM exploits the synergies between calcined clay and limestone filler, resulting in a cement product which has less CO_2 impact. Throughout the product's life cycle, the CO_2 footprint of every Troldtekt FUTURECEM product is:

- 26 per cent lower than that of Troldtekt products based on grey cement
- 38 per cent lower than that of Troldtekt panels based on white cement.



Project: Skovbakke School, Denmark
Troldtekt solution: Troldtekt acoustic
Colour: White 101
Structure: Fine (1.5 mm wood wool)
Photo: Adam Mørk

6 good reasons for choosing Troldtekt

1 Good acoustics

A combination of wood and cement creates the unique Troldtekt surface structure which absorbs sound and reduces reverberation time in a room. Good acoustics are important for wellbeing and key for a healthy indoor climate.

2 Documented sustainability initiatives

Troldtekt acoustic panels have been certified under the internationally recognized Cradle to Cradle design concept in the gold category – documenting that they are free from harmful substances.

3 Effective fire performance

Every single wood fibre in a Troldtekt panel is encapsulated and protected by non-flammable cement. Troldtekt panels therefore have low flammability and emit little heat during a fire and almost no smoke.

4 Healthy indoor climate

Troldtekt cement-bonded wood wool is a breathable material which can absorb and release moisture. The acoustic panels do not contain allergens or harmful substances and have achieved indoor climate certifications under a number of schemes.

5 Robust and durable

Troldtekt cement-bonded wood wool has a long service life of at least 50 years, even when subjected to moisture or ball impact. The cement gives the acoustic panels their strength, while the wood makes the panels breathable and easy to work with.

6 Easy installation

Troldtekt acoustic solutions are easy to install – either directly onto battens or as a suspended ceiling in a profile system. Once in use the panels are simple to maintain, paint or repair. This can help extend their already long life.

Project: Primary school in Leipzig, Germany
Troldtekt solution: Troldtekt acoustic
Colour: White 101
Structure: Ultrafine (1.0 mm wood wool)
Photo: Marcus Korzer Photography, Leipzig

1

Do you know about reverberation time?

Good acoustics

Noise due to poor acoustics occurs when the reverberation time in a room is too long. To reduce it, you need to choose sound-absorbing materials and Troldtekt acoustic panels are an effective solution for this purpose.

Reverberation time is a measure of the time it takes for sound to fade away in a room, for example when you clap your hands. Problems with acoustics arise because hard, smooth surfaces increase the reverberation time in a room as the sound is reflected directly back.

If the reverberation time is too long it becomes difficult to distinguish conversation from noise. It takes a long time for the sound waves to dissipate, often resulting in feelings of stress, irritation and discomfort.

With a short reverberation time, the soundscape becomes more precise and speech intelligibility increases significantly, because the sound 'dies out' in the room faster. This requires a surface which is soft and uneven so that it can absorb the sound.

A ceiling on noise
The solution to noise and reverberation is therefore to shorten the reverberation time. You can do this by using materials that absorb sound instead of reflecting it. Soft furnishings such as curtains, carpets and rugs can absorb some sound, but this is often not enough.

It is therefore important that you choose materials with high sound absorption coefficients for large surfaces in a room. The open surface structure of Troldtekt acoustic panels installed on ceilings and walls means that the sound will quickly die out, producing really good acoustics.

While a concrete ceiling absorbs only 1-2 % of a sound, a suspended ceiling with Troldtekt will typically absorb 80-90 %.

Can your building pass the 'clapping test'?

☹ The sound of the clap 'tails off' and lasts for 2-3 seconds. It is hard to distinguish conversation from noise.

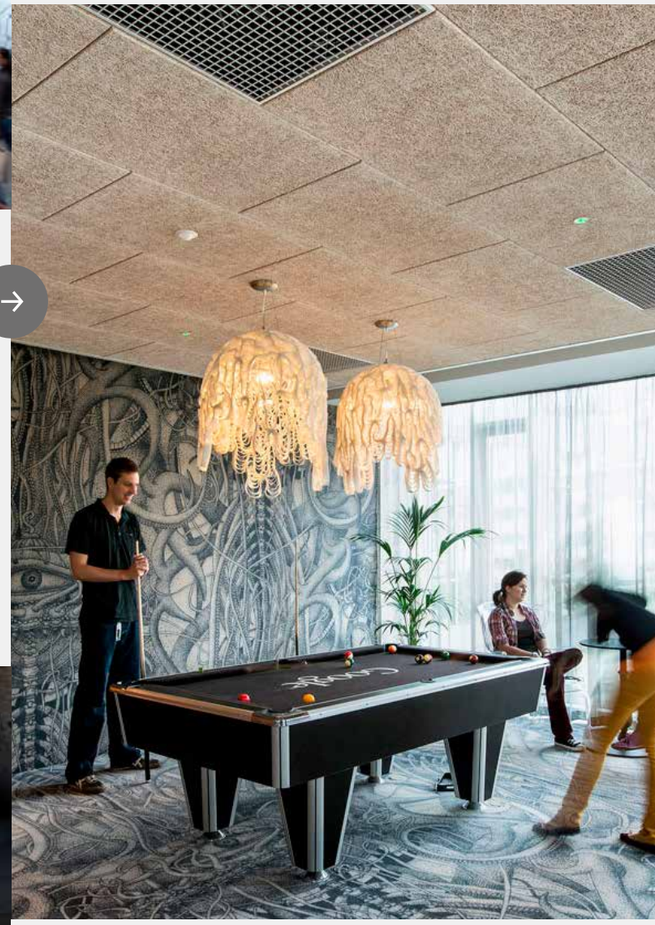
☺ The clap 'dies' immediately (after half to a full second). The sound is pleasant and well balanced.

80–90 %

Did you know that a concrete ceiling absorbs 1-2 % of sound in a room, while a suspended ceiling with Troldtekt typically absorbs about 80-90 % of sound?

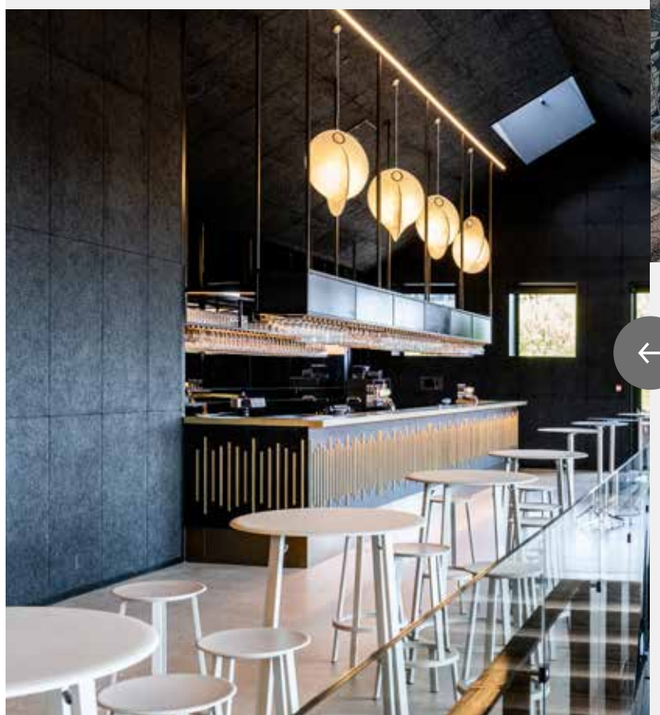
Campus UC Syd, Aabenraa, Denmark

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Fine (1.5 mm wood wool)
Photo: Tommy Kosior, Troldtekt A/S



Google Headquaters, Dublin, Ireland

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Ultrafine (1.0 mm wood wool)
Certification: Leed Platinium
Photo: Peter Würmli



Sergenten, music venue, Denmark

Troldtekt solution: Troldtekt acoustic
Colour: Black 207
Structure: Ultrafine (1.0 mm wood wool)
Photo: Zeni Architects

With and without Troldtekt: The difference it makes

You can significantly reduce reverberation time by choosing a Troldtekt acoustic solution. Whichever solution you choose, the open surface structure will absorb sounds that would otherwise reflect from the hard surfaces.

The way in which the Troldtekt acoustic panels are installed will have a bearing on the reverberation time.

In project buildings such as large offices, schools, institutions and other premises with special acoustic requirements, the optimum solution is usually to install a suspended Troldtekt ceiling within a profile system.

An ideal gap of 200-300 mm from the fixed ceiling is recommended so that there is a cavity above the acoustic ceiling.

In private homes, install Troldtekt acoustic panels directly beneath the 200-300 mm mineral wool and vapour barrier roof construction. However, installing Troldtekt under an existing ceiling may also be a viable option.

Explore the effect of constructions with Troldtekt

Different constructions with Troldtekt acoustic panels yield different results for the reverberation time.
At www.troldtekt.sg you can download sound measurements and examples.

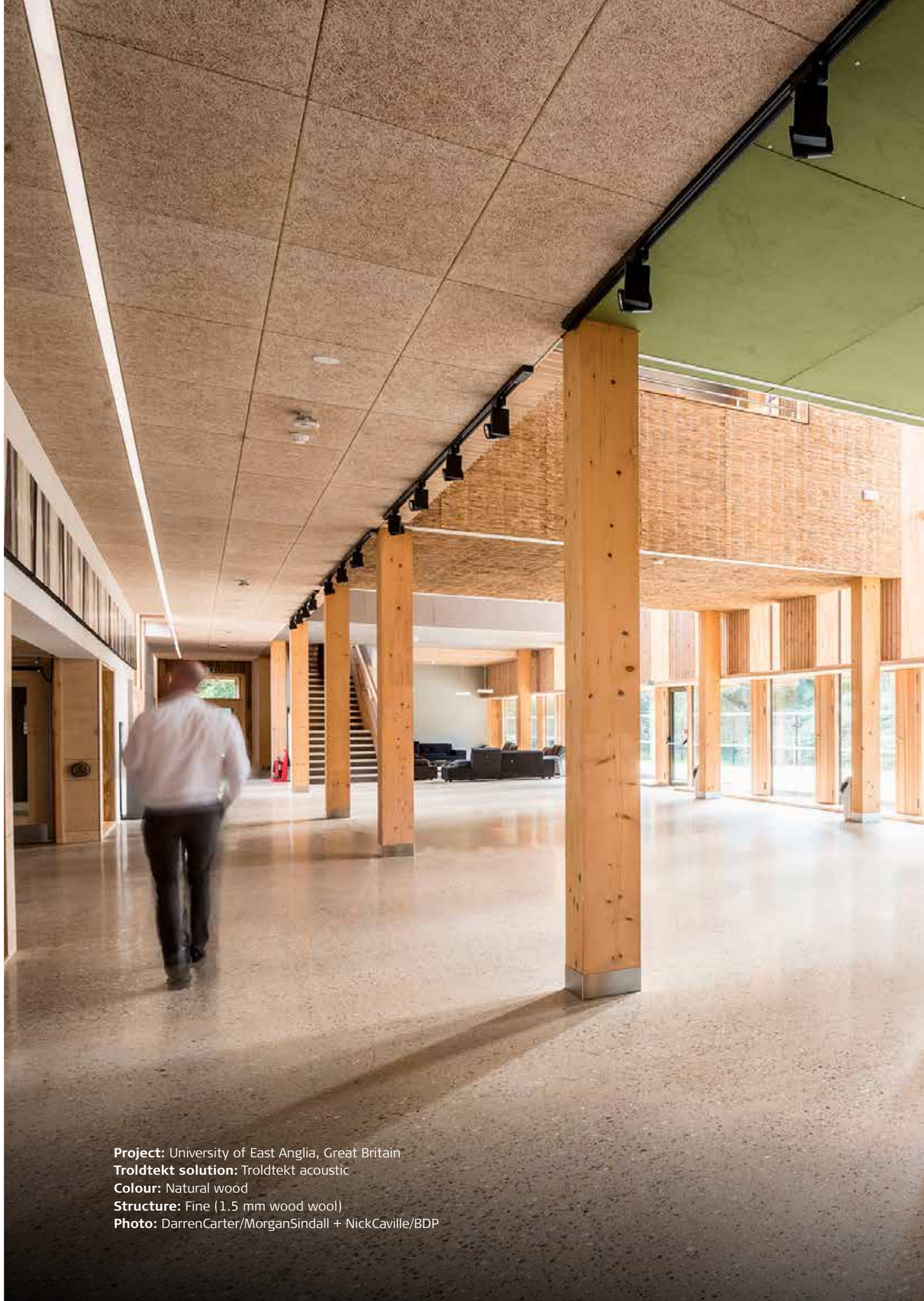
Scan the QR code to find the sound absorption values at www.troldtekt.sg

60 dB

Reverberation time is the time it takes from when a sound source (such as a clap) ceases until the sound level has decreased by 60 decibels.

$a_w = 1.0$

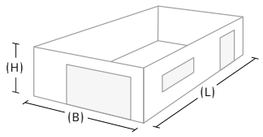
Troldtekt acoustic panels with a mineral wool backing have a sound absorption factor of approx. 1.0 for sounds above 500 Hz, i.e. the material absorbs 100 per cent of the sound. You can also say that a sound absorption factor of 1.0 corresponds to the sound disappearing out through an open window.



Project: University of East Anglia, Great Britain
Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Fine (1.5 mm wood wool)
Photo: DarrenCarter/MorganSindall + NickCaville/BDP

How much the reverberation time decreases with a suspended Troldtekt ceiling

The example below shows the reverberation time in the same room with and without a suspended Troldtekt acoustic ceiling. The reverberation time decreases from an average of 4.69 seconds to 0.48-0.53 seconds after installation of the suspended Troldtekt ceiling with underlying mineral wool. The lower reverberation time creates the best possible conditions for both conversations and concentration.

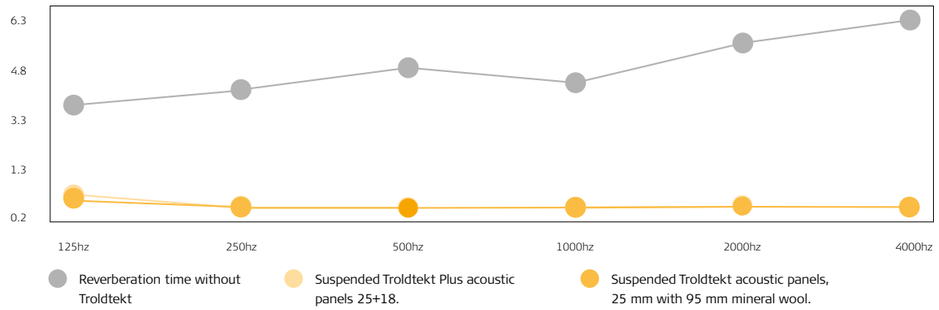


Specifications
Length (L): 9 m
Height (H): 3 m
Width (W): 7 m
Volume (V): 189 m^3

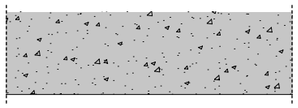
Materials
Floor: Cork, rubber or vinyl
Wall: Rendered and painted masonry or concrete
Solid wood door: 6 m^2
Double glazing 3+12+3 mm: 15 m^2

Area
Total floor area: 63 m^2
Total wall area: 75 m^2
Total ceiling area: 63 m^2

	Frequency						Average	
Reverberation time T [sec]	**125hz**	**250hz**	**500hz**	**1000hz**	**2000hz**	**4000hz**	**From 125Hz**	**From 250Hz**
Concrete ceiling without Troldtekt	3.56	4.03	4.73	4.24	5.45	6.15	4.69	4.92
Suspended Troldtekt Plus acoustic panels	0.84	0.45	0.44	0.46	0.52	0.45	0.53	0.47
Suspended Troldtekt acoustic panels with 95 mm mineral wool	0.66	0.43	0.44	0.44	0.47	0.45	0.48	0.45



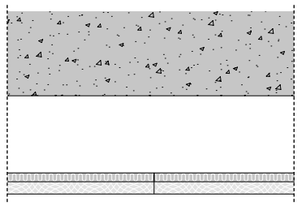
Concrete ceiling without Troldtekt



In the example, a bare concrete ceiling was used without the installation of sound absorbers.

4.69 sec.

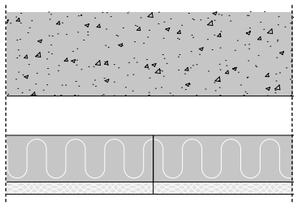
Suspended Troldtekt Plus acoustic panels



Here, a suspended Troldtekt acoustic ceiling is installed beneath the concrete ceiling. The Troldtekt Plus acoustic panels are two-layer panels with a mineral wool backing. With a gap above the Troldtekt ceiling, the total installation height is 200 mm.

0.53 sec.

Suspended Troldtekt acoustic panels with 95 mm mineral wool



Here, too, a suspended Troldtekt acoustic ceiling has been installed beneath the concrete ceiling. The structure consists of classic 25 mm Troldtekt acoustic panels and 95 mm mineral wool above. With a gap above the mineral wool, the total installation height is 200 mm.

0.48 sec.

Project: Oakmeadow Primary School, Great Britain
Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Ultrafine (1.0 mm wood wool)
Photo: Architype and Greg Townsend

Troldtekt and the circular economy

2 Documented sustainability initiatives

At Troldtekt, we are working strategically to progress towards a circular economy. The entire Troldtekt range of cement-bonded wood wool products is Cradle to Cradle Certified® at gold level.

Since 2012, Troldtekt's business strategy has been based on the internationally recognised Cradle to Cradle Certified® product standard. The vision behind Cradle to Cradle Certified® is a world where manufacturers design their products for a circular economy – and where materials can become part of new cycles.

In practice, our systematic work with the standard means that we now have detailed information about all the substances contained in Troldtekt acoustic panels, right down to 100 parts per million (ppm).

Troldtekt acoustic panels are documented free of harmful substances and can therefore safely be returned to the biological cycle. In addition, waste from the production of Troldtekt panels is returned to the technical cycle and used by the supplier Aalborg Portland as a resource in new cement.

Cradle to Cradle Certified®

The entire Troldtekt range of cement-bonded wood wool products in natural wood and painted in standard colours is certified in accordance with the sustainable Cradle to Cradle Certified product standard at gold level.

SGBP Certified

The Singapore Green Building Product (SGBP) certification scheme is one of the key standards and benchmarks for building products in the construction industry. Products and materials certified by the SGBP are recognised under the Green Mark Scheme, Singapore's national green building rating tool, administered by the Building and Construction Authority (BCA).

Further details of the SGBP listing for "Troldtekt" are published on the Singapore Green Building Council's website at: https://web.sgbc.online/public/product/search

Full transparency with environmental product declarations (EPDs)

The EPDs provide a simple overview of the total environmental impact of Troldtekt's acoustic panels. The environmental impact of raw materials, transport, production, use, disposal and the potential for recycling are reflected in the life cycle analysis on which the EPDs are based.

EDPs are useful when you, as an adviser or developer, need to gather and assess documentation on building products. Furthermore, in preference to working with average values, at Troldtekt, we have chosen to prepare product-specific EPDs for each of our products.

Choose acoustic panels based on certified wood

All Troldtekt acoustic panels are certified according to one of the two responsible forestry management standards: FSC and PEFC. Both certification schemes take into account social, environmental and economic aspects of forest management.

3

An acoustic ceiling that protects against fire

Effective fire performance

The wood fibres in Troldtekt acoustic panels are enveloped in non-combustible cement. This means that the panels have integral fire protection and they achieve a fire reaction classification of B-s1, d0 when tested in accordance with EN 13501-1:2018.

The fire-retardant properties of interior ceiling and wall claddings have major impact on how a fire develops. In an emergency, it is important that the temperature, smoke concentration, heat radiation and other factors do not prevent people inside the building from reaching safety.

Troldtekt acoustic panels are made from wood and cement. Each individual wood fibre in Troldtekt is encased in cement, which has a fire-retardant effect – without harmful chemicals. This is why Troldtekt panels have low flammability and emit very little heat during a fire and almost no smoke.

Troldtekt acoustic panels are CE-marked under the European standard for cement-bonded wood wool (EN 13168) and the EU standard for suspended ceilings (EN 13964). In accordance with the two European standards, Troldtekt has been tested for reaction to fire in accordance with EN 13501.

Singapore Certificate of Conformity (SG CoC)
Troldtekt acoustic panels are approved for use in Singapore, according to the Singapore Civil Defence Force's (SCDF) requirements. Auditors perform yearly tests on random samples to ensure continued fire performance, according to previously used tests. This product is certified to the EN13501-1:2018 Test Standard.

Further details of the SG CoC listing for "Troldtekt" are published on Setsco's Certificate of Conformity Directory website at: https://cams.setsco.com/ccs/

To view the listing, search keyword "Troldtekt" under "Brand", and select "Fire Safety Products" under "Category". Read more about the SG CoC on the SCDF website, or contact us for clarifications.

Reaction to fire

Value	Test Standard	Thickness covered	Cement type	Colours
Class 0	BS 476: Part 6: 1989 +A1: 2009 BS 476: Part 7: 1997	15mm 25mm	White & Futurecem	Natural
B-s1, d0	EN 13501-1: 2018	25mm	All	All
Flame Spread Index <25 Smoke Developed Index <50	ASTM E84-21a	25mm	White	White

Project: Mental Health Centre Sct. Hans
Roskilde, Denmark
Troldtekt solution: Troldtekt acoustic
Colour: Special colour and grey 208
Structure: Fine (1.5 mm wood wool)
Image: Helene Høyer Mikkelsen, Architect MAA

4

An indoor climate with no harmful chemicals

Healthy indoor climate

Troldtekt acoustic panels help to produce optimal acoustics. At the same time, we work with thoroughly documented material health to maintain healthy air quality inside buildings.

We live our lives in buildings where we relax, study, go to work, play sports or eat out. We believe it is crucial to focus on the health of the structural environment.

Poor air quality and acoustics, for example, can affect productivity in the workplace – and learning in schools. In addition, an unhealthy indoor climate can lead to illness, allergies and generally impair well-being.

Troldtekt ensures good acoustics, which are an important part of a healthy indoor climate. At the same time, Troldtekt is documented free of harmful substances that can contaminate the indoor climate. In addition, the acoustic panels can both absorb and emit moisture, which can make the indoor climate feel more comfortable.

Project: Erlev School, Haderslev, Denmark
Troldtekt solution: Troldtekt acoustic
Colour: White 101
Structure: Fine (1.5 mm wood wool)
Photo: Thomas Mølvig, architect. Niels Nygaard
Award: School Building of the Year 2021 in Denmark

5

Tested in demanding environments

Robust and durable

Troldtekt has a long service life and high moisture tolerance. Troldtekt acoustic panels are tested to withstand hard ball shots.

A combination of wood and cement, Troldtekt cement-bonded wood wool is a sturdy material with a long product lifespan of at least 50 years after installation. The setting and curing process transforms the cement in the panels into concrete, which adds strength to the material. The properties of the wood make the material breathable and permeable.

Long-lasting materials make a positive difference to the environment and the economy generally. In a life cycle assessment (LCA) of a building, much of its environmental impact usually occurs in the raw material and production phase. When a material can last for at least 50 years, the impact is spread over a long period.

Absorbs and gives off moisture
Troldtekt panels can absorb and release moisture and are therefore ideal for use as ceiling and wall cladding in wet rooms, such as bathrooms, wellness areas and swimming baths. Troldtekt acoustic panels can also be used outdoors, for example, under eaves.

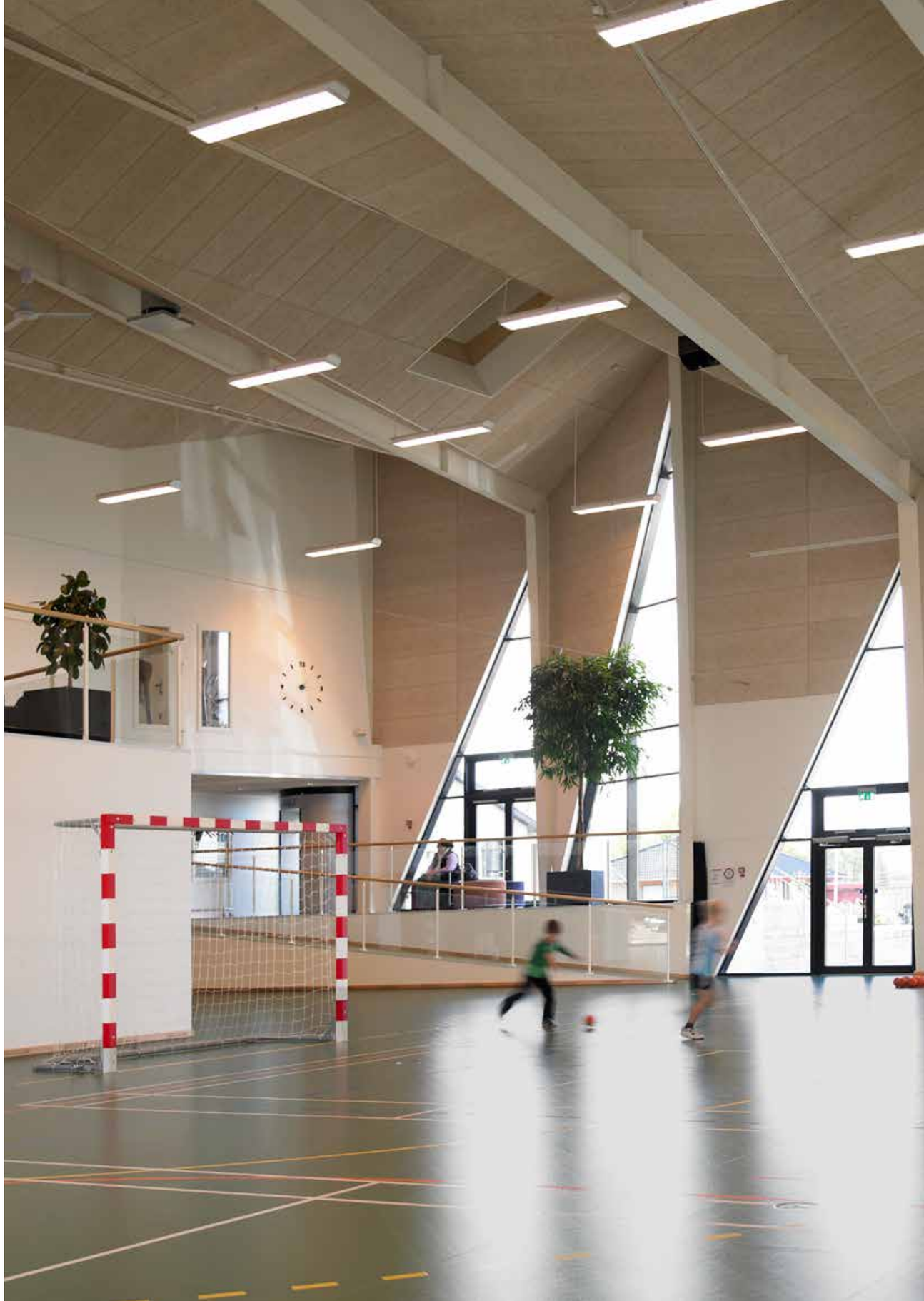
The Danish Technological Institute has documented that Troldtekt acoustic panels are suitable for installation in spaces with:

- Ambient humidity up to 98% (+/- 2%)
- High temperatures up to at least 40°C.

Ball impact tested
Ceiling and wall cladding in sports halls and similar spaces are subject to arduous conditions. For example, cladding is often hit by balls travelling at high speed.

MPA in Stuttgart has certified Troldtekt panels to withstand ball impact in accordance with German standards. During a ball impact test, a regulation handball hits the wall cladding at a speed of 22.5 m/s or 81 km/hour. A wide range of Troldtekt solutions have been tested and approved as ceiling cladding for use in sports facilities.

Project: Sports centre in Kibæk, Denmark
Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Fine (1.5 mm wood wool)
Photo: Helene Høyer Mikkelsen, architect MAA



Project: Hallenbad Gensingen, Germany
Troldtekt solution: Troldtekt acoustic
Colour: White 101 and custom colours
Structure: Ultrafine (1.0 mm wood wool)
Photo: Olaf Wiechers, Architect

6

A flexible material to handle and maintain

Easy installation

There are a number of methods for installing Troldtekt acoustic panels on wooden battens or in profiles. After installation,the panels are easy to maintain and repair so that they will last even longer.

Troldtekt acoustic panels are easy to handle. From the panels' arrival at the building site and processing them through to their installation. Troldtekt cement-bonded wood wool is suitable for screw-mounting. The material is easy to work with. The material accommodates simple workflows and offers considerable flexibility during installation.

Troldtekt cement-bonded wood wool can last for at least 50–70 years. If you wish to extend the service life of your panels, you are advised to invest in light cleaning, make minor repairs and apply a fresh coat of paint.

Multiple installation options
Troldtekt acoustic panels can be installed in several ways:

- with screws or concealed KN brackets on wooden battens
- in a suspended, concealed C60 profile system
- in an exposed or concealed T-profile system (no tools required)

Troldtekt screws are specially designed for installing Troldtekt acoustic panels. The screws are painted in colours that match the panels and the screw head has the same visual structure as the Troldtekt panels.

Easy to clean and repaint
Once installed, Troldtekt acoustic panels are easy to maintain for an even longer service life. Troldtekt acoustic panels can be painted repeatedly with a spray paint at no risk of impairing their acoustic properties.

The longer your Troldtekt panels remain in service, the more resources you save – for the benefit of both the economy and the environment.

Scan the QR code to download instructions for storage, installation, use and maintanance.

Project: Autobarn, Somerset, Great Britain
Troldtekt solution: Troldtekt acoustic
Colour: White 101
Structure: Fine (1.5 mm wood wool)
Photography: Nick Dearden

❶ Extreme fine structure (0.5 mm)
❷ Ultrafine structure (1.0 mm)
❸ Fine structure (1.5 mm)

Very flexible design

Are you dreaming of a natural, classic white or evocative black ceiling? Or maybe something third? The choice is yours.

Ceilings and walls are large surfaces and allow you to combine superior acoustics with a stylish design.

You have great freedom to design your Troldtekt acoustic solution to match your exact wishes for your construction project. Troldtekt acoustic panels are available in two basic variants:

- natural grey (FUTURECEM™), based on a CO_2-reduced cement type FUTURECEM™
- natural wood based on white cement

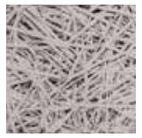
Both types of basic panels are available unpainted or painted in standard or special colours. Note that there may be differences in shade between the two.
All Troldtekt cement-bonded wood wool products in natural and standard colours are Cradle to Cradle Certified® to gold level.

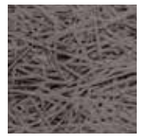
The product range gives you the freedom to combine optimal acoustics and a healthy indoor climate with a distinctive look.

Colour variants with Troldtekt in natural grey (FUTURECEM)


Natural Grey (FUTURECEM)

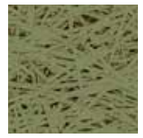

White 101 (FUTURECEM)


Grey 202 (FUTURECEM)


Grey 208 (FUTURECEM)


Black 207 (FUTURECEM)

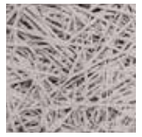

Clay 210 (FUTURECEM)

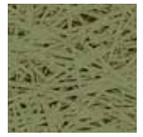

Colour of your choice (FUTURECEM)

Colour variants with Troldtekt in natural wood


Natural wood


White 101


Grey 202


Colour of your choice

Troldtekt® acoustic panels

Troldtekt acoustic panels are suitable for use as ceiling and wall cladding in most types of buildings.

Troldtekt acoustic panels is our classic acoustic product, which is a popular choice in offices, schools, institutions, sports centres, cultural venues, private homes and many other types of buildings.

Troldtekt acoustic panels are CE-marked according to the European standard for cement-bonded wood wool (EN 13168) and the European standard for suspended ceilings (EN 13964).

Ensures optimum acoustics
Troldtekt acoustic panels can be installed as ceiling and wall cladding. As an acoustic ceiling, the panels are installed directly on battens or in a suspended profile system, and often with a mineral wool backing for optimum sound absorption.

In rooms with particular acoustic requirements, for example in institutions and swimming baths, installing Troldtekt panels on both the ceilings and some of the walls is an obvious solution. If you do so, you can ensure sound absorption of up to αw = 1.0, which corresponds to 100 per cent.

< **Project:** Kristiansand Cultural School, Norway
Troldtekt solution: Troldtekt acoustic, Troldtekt line
Colour: Natural wood, black 207, white 101
Structure: Ultrafine (1.0 mm wood wool)
Photo: Tommy Kosior, Troldtekt A/S

Project: Kunstpavillon Videbæk, Denmark
Troldtekt solution: Troldtekt acoustic
Colour: White 101
Structure: Fine (1.5 mm wood wool)
Photo: Thomas Mølvig, architect

Reference projects

Troldtekt acoustic solutions are suitable for both new builds and refurbishment projects. From schools and offices to sports centres, indoor swimming pools, restaurants and private homes. On the following pages, you can see examples of architecture where Troldtekt forms part of the design.

Schools and educational buildings

Schoolchildren and their teachers need physical settings that work well and inspire. Certain factors, like acoustics, air quality and durability, play an important role. Troldtekt acoustic solutions can help create the best conditions for learning.

Page 38–39

Office buildings

In office buildings, it is imperative that the indoor climate is healthy – the well-being of employees and their productivity depend on it. When you install Troldtekt acoustic solutions, the one solution helps you to meet acoustics, air quality AND design requirements.

Page 40–41

Sport centres and swimming pools

Swimming, ball games and other forms of exercise often take place in large spaces with high ceilings. Troldtekt acoustic panels effectively absorb the din of splashing, play and shouting. Meanwhile, Troldtekt is a robust and durable solution that can withstand high levels of ambient humidity and hard ball shots.

Page 42–43

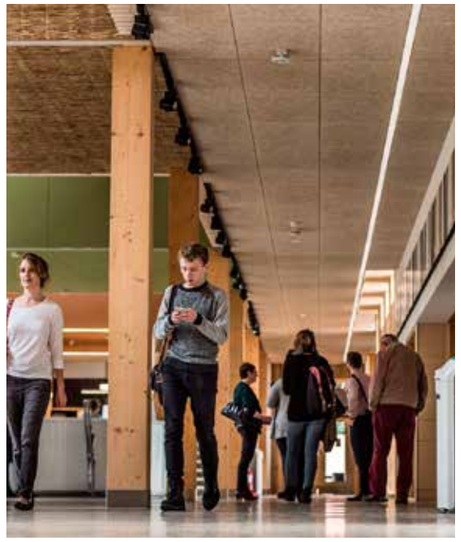
Scan the QR code to find many more reference projects at www.troldtekt.sg

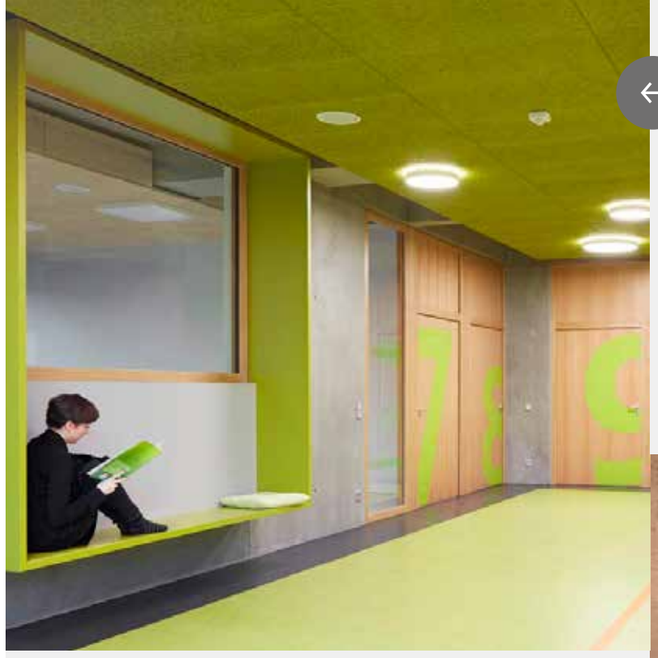
Schools and educational buildings

The Enterprise Centre, Great Britain

The Enterprise Centre at the University of East Anglia has been dubbed the UK's Greenest building. It is also the first large scale building to target both Passivhaus Certification and BREEAM Outstanding. Troldtekt acoustic panels that were chosen for many of the ceilings throughout the complex for their combination of high performance, aesthetic appearance and their contribution to a more sustainable building.

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Fine (1.5 mm wood wool)
Awards: The Royal Institute of British Architecture's National Award
Photo: DarrenCarter/MorganSindall + NickCaville/BDP



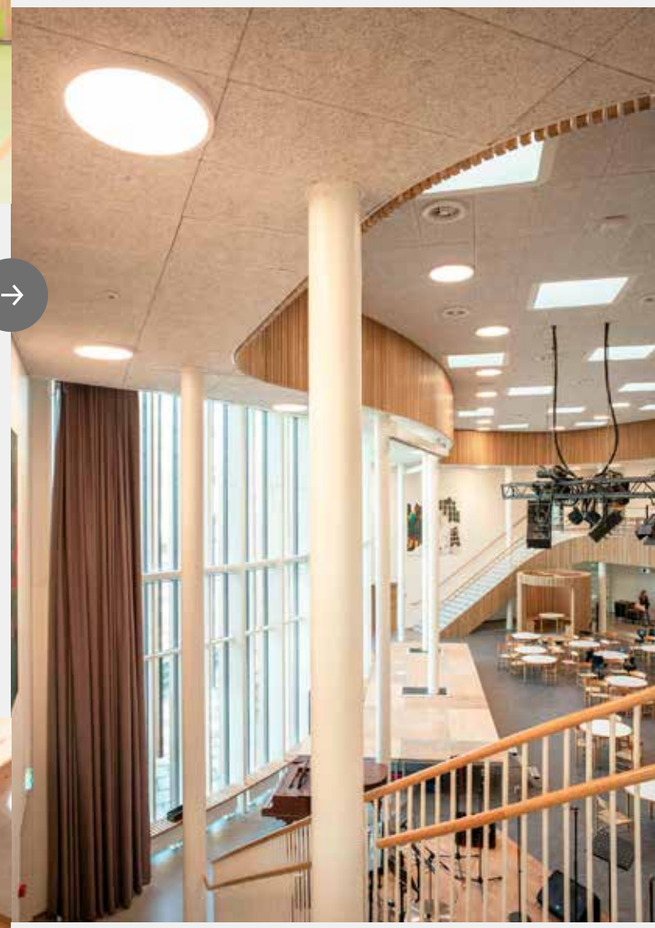


Bilingual Montessori school Ingelheim, Germany

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood & custom colour
Structure: Fine (1.5 mm wood wool)
Photo: Markus Bachmann

Horsens Gymnasium, Denmark

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood, White 101
Structure: Fine (1.5 mm wood wool)
Photo: Helene Høyer Mikkelsen



Vrå School & Cultural Centre, Denmark

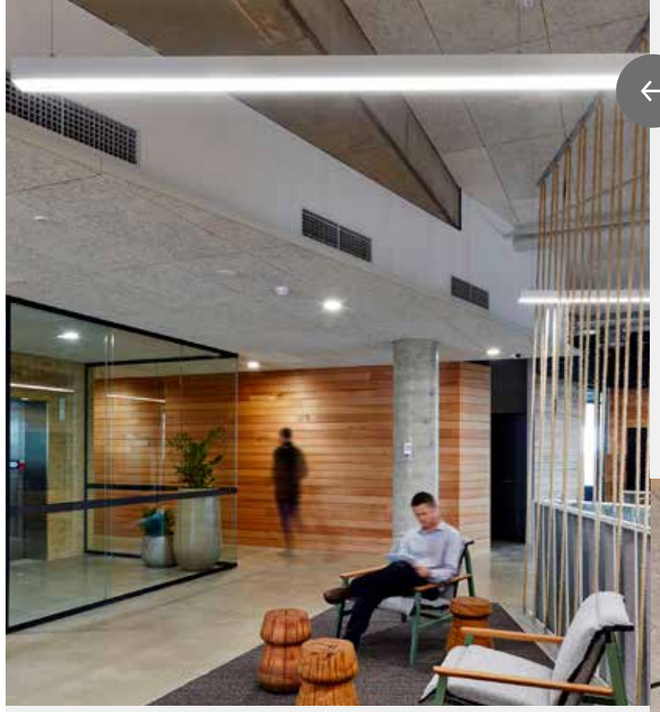
Troldtekt solution: Troldtekt acoustic
Colour: Natural wood and painted grey
Structure: Ultrafine (1.0 mm wood wool)
Certification: DGNB Gold
Photo: Thomas Mølvig, architect

Office buildings

KAB-Huset, Copenhagen, Denmark

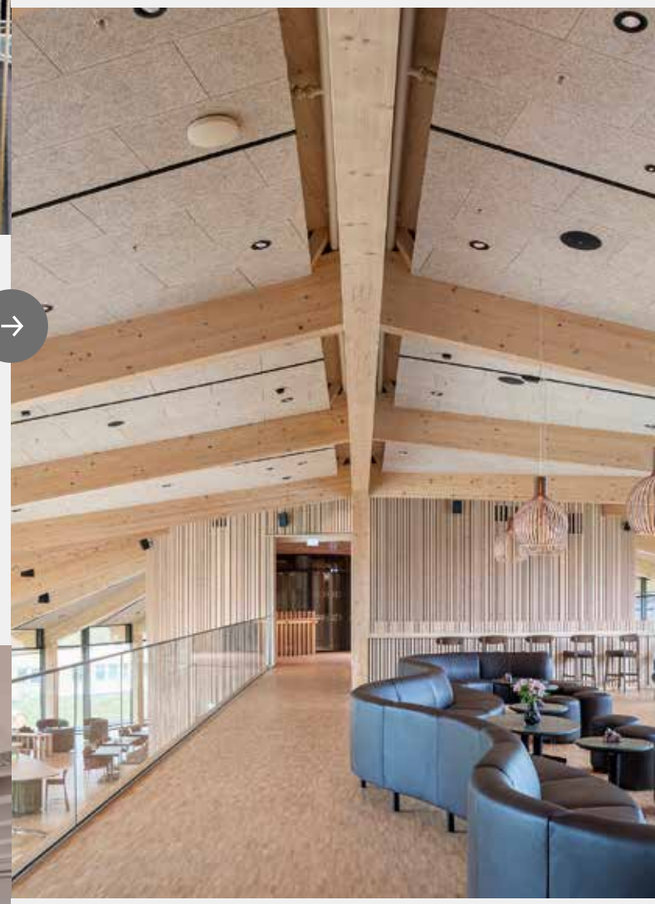
Spatially, this building designed by Henning Larsen Architects works extremely well, with a diversity of spaces, a comfortable ceiling height and an impressive degree of spatial and functional coherence. Wood features prominently in the interior design, including Troldtekt acoustic panels, and bare concrete.

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Extreme fine (0.5 mm wood wool), Fine (1.5 mm wood wool)
Photo: Helene Høyer Mikkelsen



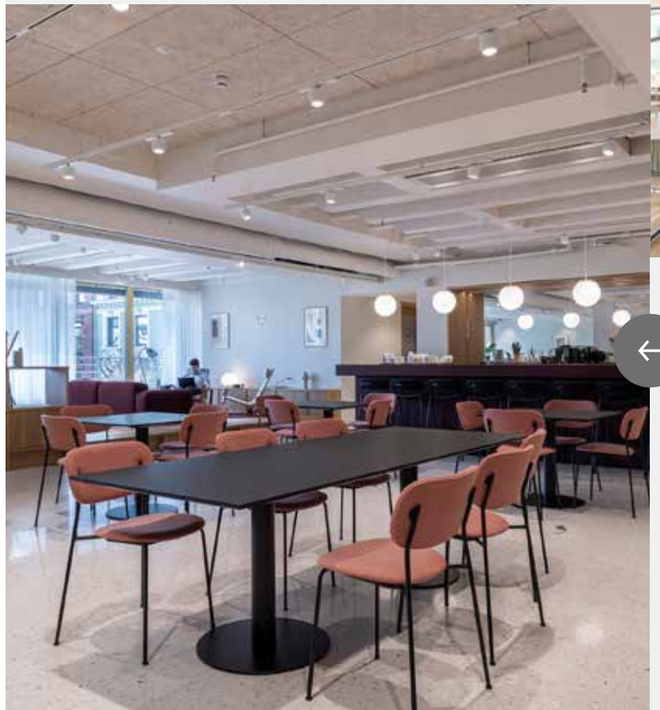
Port Adelaide Office, Australia

Troldtekt solution: Troldtekt acoustic
Colour: White 101, black 207 and natural wood
Structure: Ultrafine (1.0 mm wood wool)
Photo: Sam Noonan



World of Volvo, Göteborg, Sweden

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Fine (1.5 mm wood wool)
Photo: Barabild



Stortorvet 7, Oslo, Norway

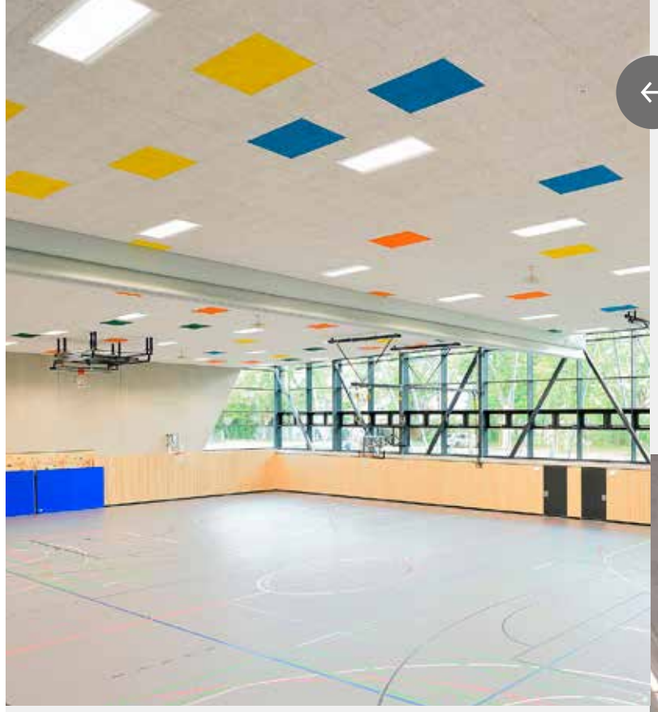
Troldtekt solution: Troldtekt acoustic
Colour: White 101
Structure: Ultrafine (1.0 mm wood wool)
Photo: Tommy Kosior

Sports centres and swimming pools

Allgäu Center Parcs, Germany

Luxurious treats and entertainment for the entire family at the foot of the Alps in southeastern Baden-Württemberg on a 184-hectare. The project also features expansive water, play and wellness facilities. Troldtekt acoustic ceiling tiles of various colours, which are suitable for damp rooms, are an element of the design.

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood, special colours
Structure: Ultrafine (1.0 mm wood wool)
Photo: Olaf Wiechers, architect

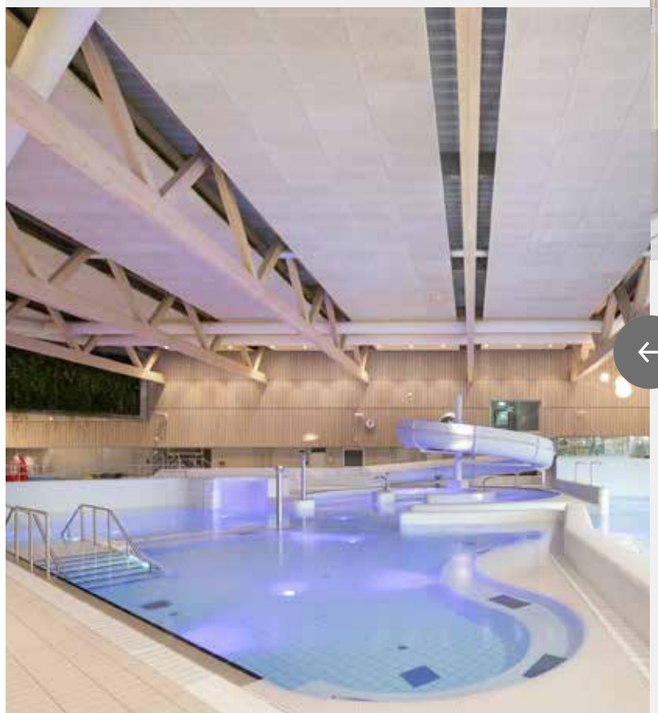


Engen sports hall, Germany

Troldtekt solution: Troldtekt acoustic
Colour: White 101, special colours
Structure: Ultrafine (1.0 mm wood wool)
Photo: Olaf Wiechers, architect

Johan Skytteskolan, Sweden

Troldtekt solution: Troldtekt acoustic
Colour: White 101
Structure: Fine (1.5 mm wood wool)
Photo: BaraBild



Tinnerbäcksbadet, Sweden

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Ultrafine (1.0 mm wood wool)
Certification: Miljöbyggnad Silver
Photo: BaraBild

NOMA pop-up restaurant, Sydney, Australia

Troldtekt solution: Troldtekt acoustic
Colour: Black 207
Structure: Ultrafine (1.0 mm wood wool)
Photo: Lendlease

The Terrace Restaurant, London Zoo, Great Britain

Troldtekt solution: Troldtekt acoustic
Colour: Natural wood
Structure: Fine (1.5 mm wood wool)
Photo: Alastair Lever

Design Museum, London, Great Britain

Troldtekt solution: Troldtekt acoustic
Colour: RAL 5004
Structure: Ultrafine (1.0 mm wood wool)
Photo: Gareth Gardner

GOOD ACOUSTICS SINCE 1935

At Troldtekt, we are committed to ensure good acoustics and contribute to a good indoor climate in buildings. We are driven a passion for people and the planet.

Since 1935, we have been producing Troldtekt acoustic panels made from Danish wood and cement. We design, develop and manufacture the panels at our high-tech factory in Denmark.

We make a difference you can hear
Troldtekt contributes to acoustic comfort in most types of architecture – in many countries around the world. Our acoustic panels clad ceilings and walls in offices, businesses, schools, childcare institutions, cultural venues, sports facilities, swimming pools and private residences. Wherever Troldtekt is used, we make a difference you can hear.

We recognize the value of high quality
We understand that quality materials are essential for future-proofing the architecture. Troldtekt acoustic solutions contribute to distinctive buildings that last. We are ambitious and work continuously to develop even better solutions while remaining competitive.

We take responsibility
For us, it is important to work holistically with people and environment in all aspects of our business. That's why the Cradle to Cradle Certified® design concept is a key part of our business strategy. The concept's three basic principles are to eliminate waste, transition to renewable energy and support diversity. At Troldtekt, this translates into initiatives that focus on the environment, society and business.

We are part of an ambitious group
Since 2022, Troldtekt has been part of the Kingspan Group, a listed Irish building materials company with operations in more than 80 countries. With its Planet Passionate programme, Kingspan has set ambitious climate goals. By 2030, Kingspan will be a zero-waste-to-landfill company with carbon-neutral production with no net emissions.

Troldtekt®
By Kingspan

KIAS – 1st edition, version 01, January 2025

Visit Troldtekt online for more inspiration:

#troldtekt
#goodacoustics

This document reflects Troldtekt's knowledge of certifications, standards, and products at the time of publication.

No rights can be derived from this document. Changes, typesetting and printing errors reserved.

The most recent version can be found online by scanning the QR code.

www.troldtekt.sg

Kingspan Insulation Asia
1 Commonwealth Ln, #07-26/27,
Singapore 149544
Tel: (+65) 6653 2934
info@kingspaninsulation.asia

Troldtekt® By Kingspan | Authorised Distributor