



HIMMEL™
INTERIOR SYSTEMS

DESIGN

BY Trolldtekt®

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Designed for flexibility

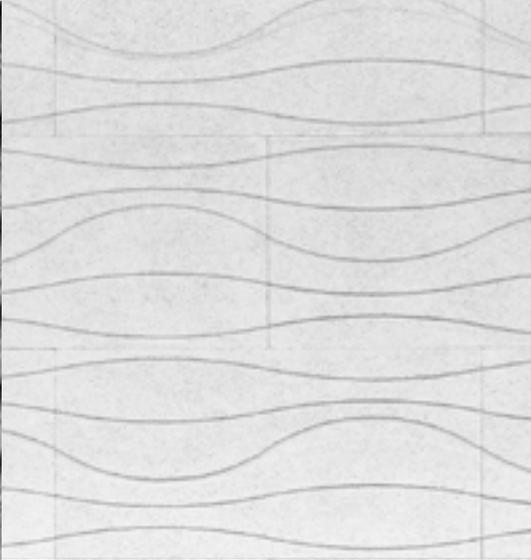
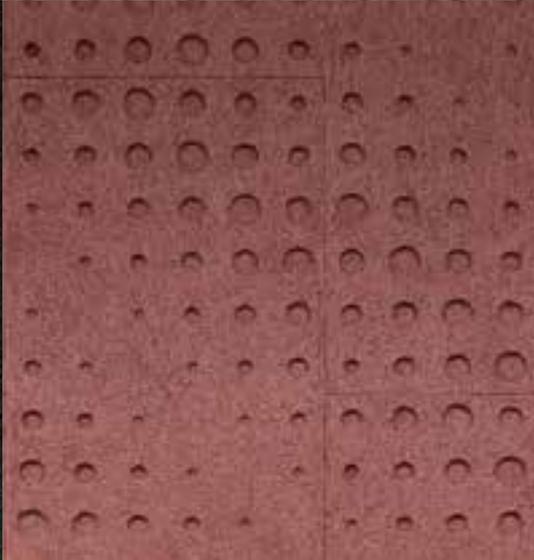
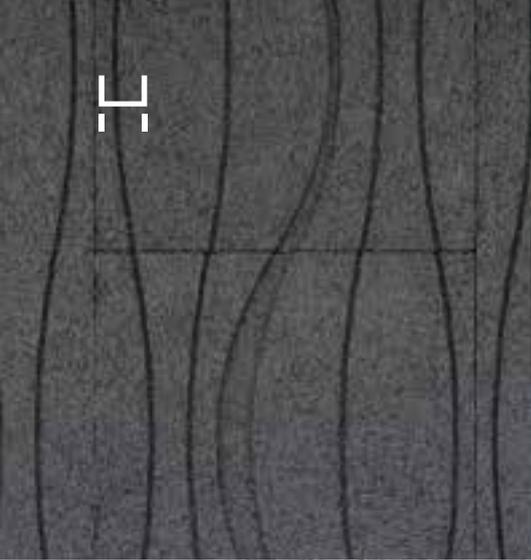
We spend by far most of our time in buildings. Office buildings, schools, sports centres, restaurants, cultural centres and private homes. It is therefore important that these indoor settings are comfortable for our eyes, ears and health. Architects therefore need great freedom to unite form and function when designing rooms.

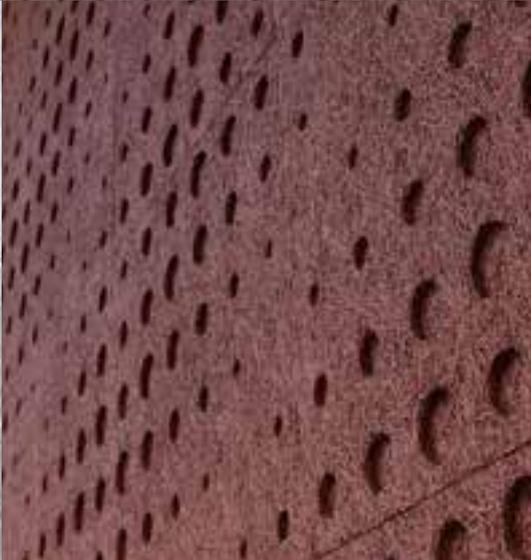
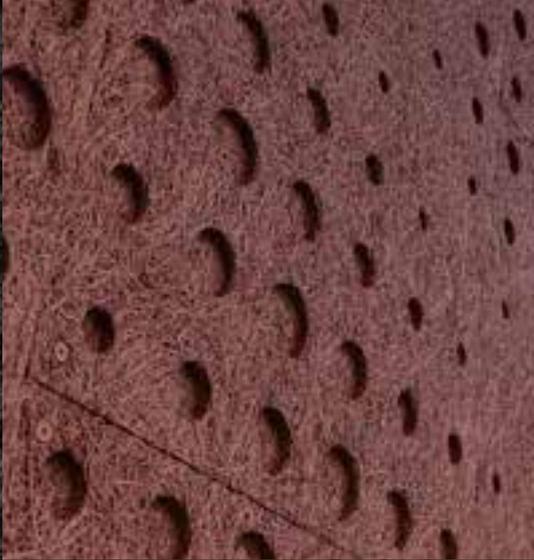
Troldtekt design solutions allow you to combine good acoustics and a healthy indoor climate with expression and character. You can create your own patterns and rhythms in the design – and vary and scale the various design solutions to create a very cohesive sense of harmony on ceilings or walls. In a nutshell, it's not about the panel, but the surface.

The series of design solutions marks a new chapter in Troldtekt's history. We began in 1935 with industrial panels, and have been developing acoustic solutions for modern architecture in recent years. We have added exciting designs along the way, which have won international awards. We are now taking our design solutions to the next level – launching a whole series suitable for mass-production using modern technology, at competitive prices.

In this brochure you will find inspiration, and facts about the flexible design solutions. There are nine alternatives, but countless ways to combine them, so your projects can have a unique expression. See how some of the solutions are used in practice, and read an interview with the architect behind the nine designs.

Enjoy your reading!







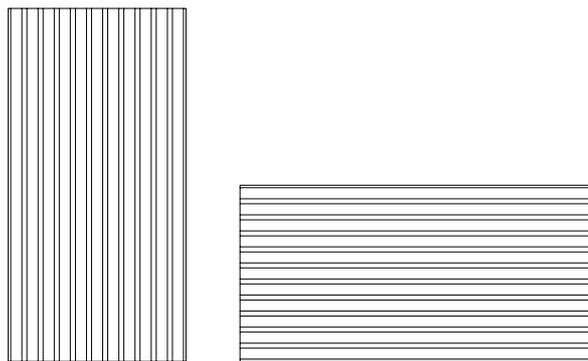
Troldtekt® line

Troldtekt line provides an elegant, uniform ceiling surface with no visible joints, and the peaceful look characteristic of timber batten ceilings.

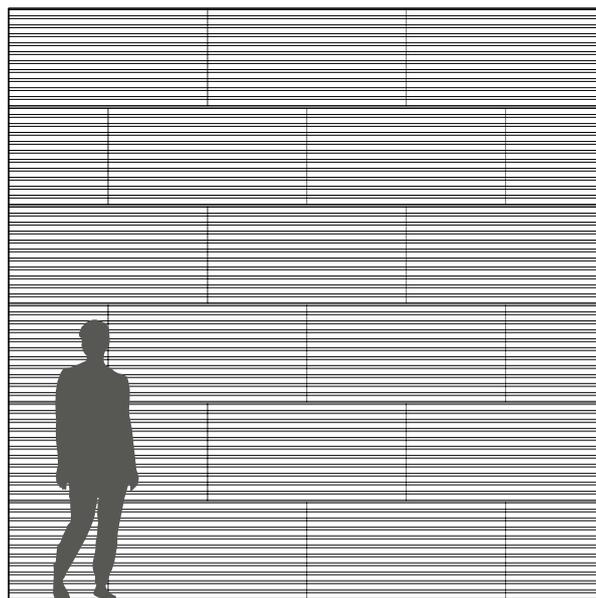
Troldtekt line acoustic panels have lengthwise surface grooves. Each panel has ten evenly spaced grooves.

When the acoustic panels are joined together, the grooves are continuous along the entire surface, offering a seamless look. Each long side of the panel has a half groove, so that an extra groove is formed where panels are joined on the wall or ceiling.

Troldtekt® line



Troldtekt line installed vertically



Troldtekt line installed horizontally





Intimate restaurant experience with Troldekt® line

At Restaurant Strandtangen in the Danish town of Skive, honest Nordic food goes hand in hand with an elegant and stylish interior. The centrepiece is the black acoustic ceilings with milled grooves, which create a very special atmosphere.



Project: Restaurant Strandtangen in Skive, Denmark
Architect: Interior design in collaboration with designer Søren Vester
Troldtekt products:
Ceiling and wall panels: Troldtekt line
Colour: Black 207
Structure: Ultrafine (1.0 mm wood wool)
Installation: With Troldtekt screws

The smell of the sea. An elegant and timeless interior. The taste of food made from excellent ingredients. That is what you can expect when you visit Restaurant Strandtangen in Skive. The restaurant lies beside the fjord, and offers gastronomic experiences featuring the best Danish cuisine, in a beautiful setting.

“We prepare food without bells and whistles. It is Nordic style, with all the good, local ingredients that entails,” explains restaurant manager Maria Nørgaard, who leases the premises together with her husband Halldor Asmundsson.

Received some TLC

Halldor, who is originally from Iceland, has worked as a chef at a string of restaurants. He needed no time for reflection back in 2014 when he took over Restaurant Strandtangen. However, after a number of years, the site needed a breath of fresh air, and the restaurant was transformed into a fine example of Danish design during a holiday period.

“The restaurant needed some TLC. We wanted it to be a more inviting setting for social interaction, while allowing guests to enjoy scenic views and good food,” says Maria. The couple therefore contacted designer Søren Vester.



The result of the partnership is an intimate restaurant with dark oak floors and black Troldekt acoustic panels on ceilings and walls, giving it an exclusive, elegant look.

Design with lines and shadow play

Despite the restaurant's simplicity, it is clear that every detail in the interior design has been carefully considered. For example, the black leather sofa has been elegantly built into the wall. The Troldekt acoustic panels are also a key element, and the design solution Troldekt line was chosen.

"The black acoustic panels with milled lengthwise grooves are the focal point. They create a lovely shadow play, and a spatial experience that allows guests to immerse themselves in the food, the conversation and the beautiful view," says designer Søren Vester.

"The stylish look can be seen everywhere. For example, serving staff wear rustic leather aprons that complement the interiors superbly.

A restaurant with personality

Together with Maria and Halldor, Søren Vester has also sought to ensure that the interior design reflects the restaurant menu and the personality of the owners.

"When you enter the restaurant, you immediately feel welcome. This is largely due to Maria and Halldor's great hospitality, which is underscored by the interior," says Søren Vester.

Examples of this include the warm fire in the fireplace, the subdued lighting and the large glass-walled wine room, which creates an atmosphere of elegance and exclusivity. The menu at Restaurant Strandtangen is also subtly reflected in the interior design.

"The fjord plays a major role at the restaurant – as the scenic backdrop and in the menu. If you look closely you can also see it in the interior, which has a maritime look and beautiful pictures of Limfjord landscapes," says Søren Vester.



Interview:

Why the designer chose Troldekt

Søren Vester feels strongly about choosing sustainable materials, and is also very excited about the design solution Troldekt line which transforms the surface into a whole.

Why did you choose the design solution Troldekt line for Restaurant Strandtangen?

“I think it’s great to see how Troldekt has challenged and developed its core product in a new design solution. It’s made of the same simple material, but Troldekt has experimented with the acoustic panels and used them to create an exciting new look. Troldekt line removes the boundaries between acoustic panels, making the surface a seamless whole. It’s quite brilliant in my view.”

How significant is it that Troldekt line has a sustainable profile and is made of natural materials?

“As a designer, my job is to create new things. But I want to change people’s perceptions, such that we contribute more than we take away. This can be

difficult in our consumer society, but I can take an important step by choosing sustainable solutions, and Troldekt is a reliable choice in this respect. If you want to change the interior design one day, the acoustic panels can be easily dismantled. And the cost of the solution is within everyone’s reach. This is very appealing as a professional designer looking for the right materials.

Why is it important to look at acoustics as part of interior design?

“All rooms are for people, so when I start working on a new interior design I look at how I can cater for human senses. One of these is hearing, and acoustic improvements are therefore always part of my solutions. Rooms that you cannot talk in are rooms that you cannot live in. As I often say, ‘happy people are noisy people’, and a good sound environment is therefore very important. Acoustic solutions must never be add-ons to the room, but must be thoughtout and integrated solutions on walls and ceilings.”



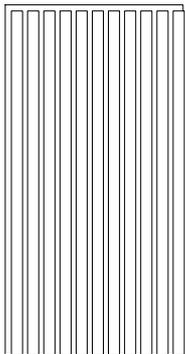
Troldtekt® line design

Troldtekt line design has milled grooves in the surface and overlapping edges on all sides.

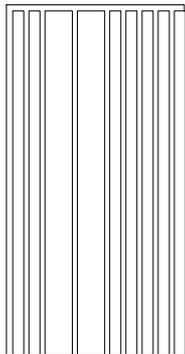
When you join the panels, the result is continuous grooves with a seamless look and invisible joints. You perceive the surface pattern as a whole, and it is difficult to detect where the panels meet.

The solution is available in four variants, which can be freely combined. You can choose to have equal or varying intervals between the grooves, determining the rhythm of the resulting look.

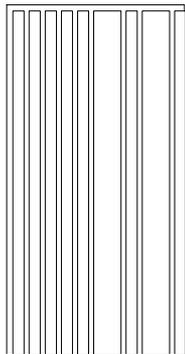
Troldtekt®
line design 11



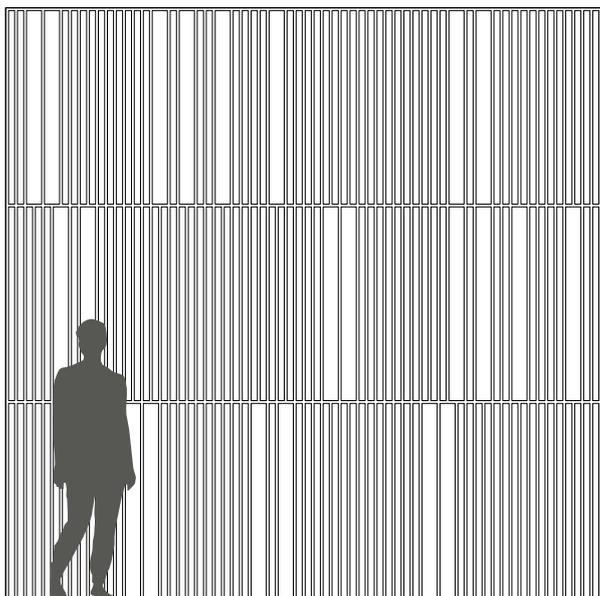
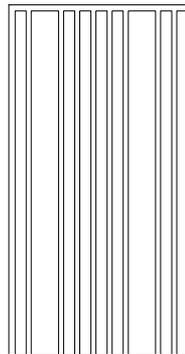
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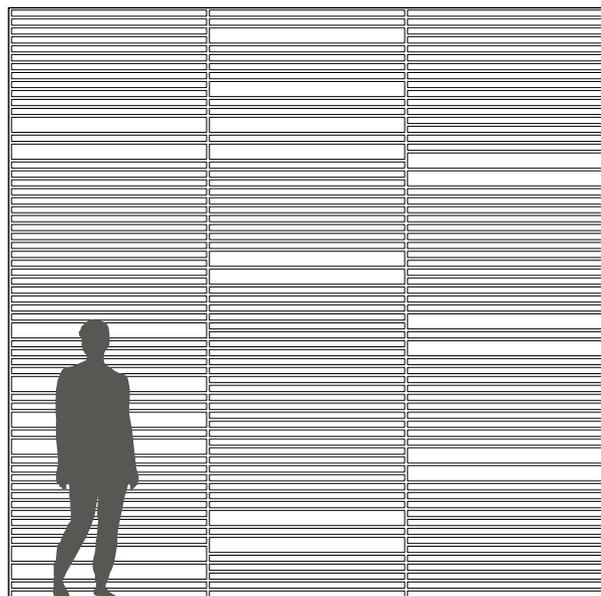
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Troldtekt line design installed vertically



Troldtekt line design installed horizontally





Architects free to do something out of the ordinary

The new Troldekt design solutions are the result of a goal and a rule. The goal is to give architects the greatest possible flexibility when designing ceilings and walls for good acoustics. The rule is that the solutions must be suitable for mass production. Hear what the architect behind the new design line has to say.

In August 2018, Troldekt's in-house architect, Michael Christensen, was given an unusual brief: "Propose ten new design solutions and we will choose the three best ones". Just over six months later, virtually all the original suggestions have become reality in the new design series.

"The aim during the process has been to launch a broader range of solutions that offer the greatest possible architectural freedom. The goal of the new design series is to appeal to architects who

want the scope to do something out of the ordinary in their interiors, but also have to stay within a reasonable budget," says Michael Christensen.

It's all about the surface

The various design solutions in the series have two primary features in common: Firstly, they are mass-produced and therefore competitively priced. Secondly, they are designed to give ceiling and wall surfaces a seamless look.



About Michael Christensen

- Graduated as an architect, MAA, from the School of Architecture in Aarhus in 2002.
- Became involved with Troldekt A/S in 2003, as an external consultant preparing drawings and BIM objects for architects.
- He now holds a permanent position at Troldekt, working with product development, technical advice and documentation for architects.
- He has previously worked for the Ginneruparkitekter A/S and RUM design studios.
- He completed training as a DGNB consultant in 2018.



“Designer Søren Vester dropped by, looking for inspiration, and he made a good comment that became the motto for my work with the various designs. “It’s not about the panel, but the surface,” he said, and this sums up the new series nicely. “Each solution is intended to form a complete acoustic surface, whether large or small,” says Michael Christensen.

“We have also made a conscious effort to ensure the solutions are flexible, so the panels can be combined in ways that offer great variation in the design,” he adds.

Based on CNC technology

As the first step in the development of the new solutions, Michael Christensen and his colleague Bjarne Mortensen attended a course on CNC technology.

“We learned about the possibilities CNC machining offers and about programming, which we could carry over to our machine in production. We have since spent many long evenings, working and having fun with prototypes in the CNC milling machine and other types of milling machines,” says Michael Christensen.

While he is the one who drew up all the new designs, he stresses that the new solutions are the result of teamwork. In addition to input from Product Developer Bjarne Mortensen, a large design group from sales and the Troldekt management team have helped refine the product series along the way.

From Nordic to expressive

His architectural background and experience from design studios have made Michael Christensen well equipped for his work on the new designs.

“As an architect, it is a classic discipline to use standard products to design something unique or with special character. This is the challenge our new design series attempts to meet,” he says.

“The goal has been to get form and function to meet in a wide range of products. Some of the new solutions fit well with Nordic design – with straight lines and angles, while others are more expressive.

Michael Christensen reveals that the simple, modular design variants – Troldekt line, Troldekt line design and Troldekt tiles – are his personal favourites.

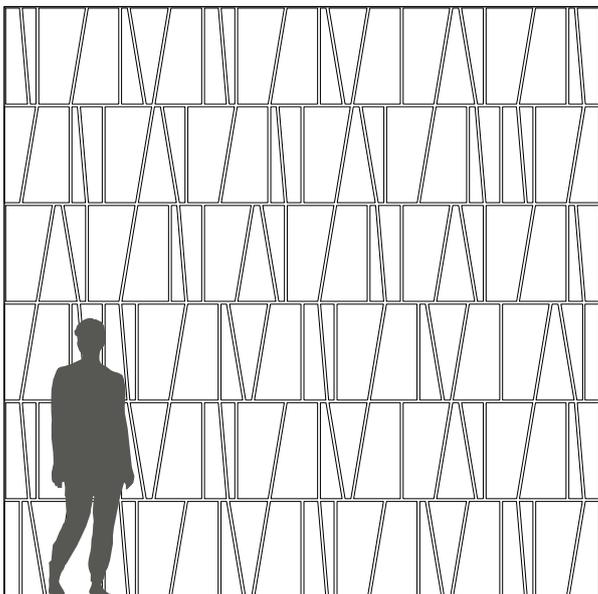
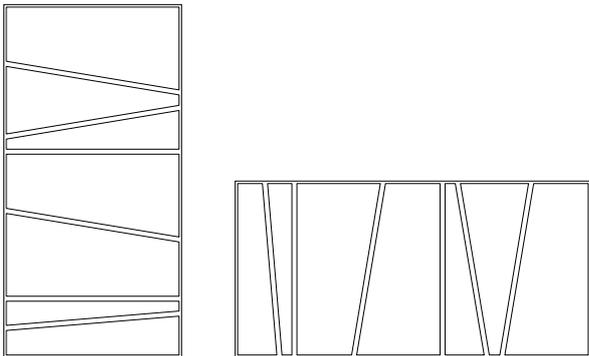


Troldtekt® tilt line

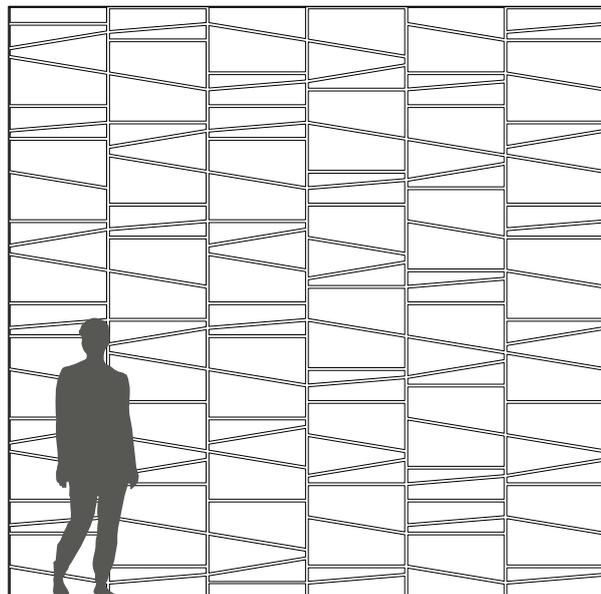
This solution results in a multifaceted surface. Each acoustic panel has six angled grooves, and milled half grooves along the outer edges. This results in continuous straight grooves at the joints between panels, and an elegant combination of angled and straight grooves.

If the panels are installed in offset rows, you can choose to have some of the angled grooves continue between rows. You can also freely vary the offset, or turn some panels 180 degrees, to give the design a different rhythm.

Troldtekt® tilt line 7



Troldtekt tilt line installed horizontally



Troldtekt tilt line installed vertically



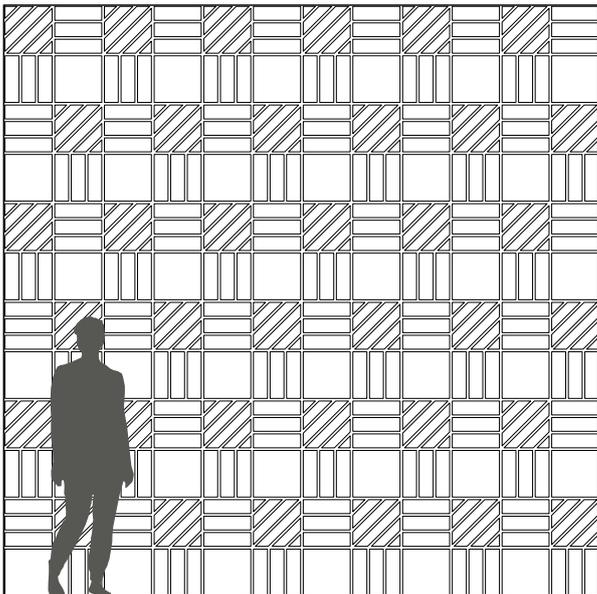
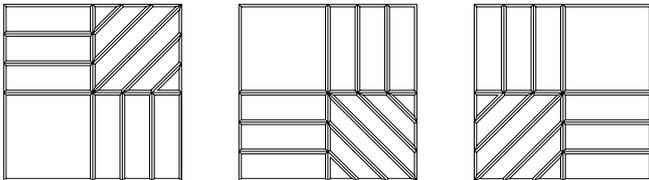


Troldtekt® puzzle

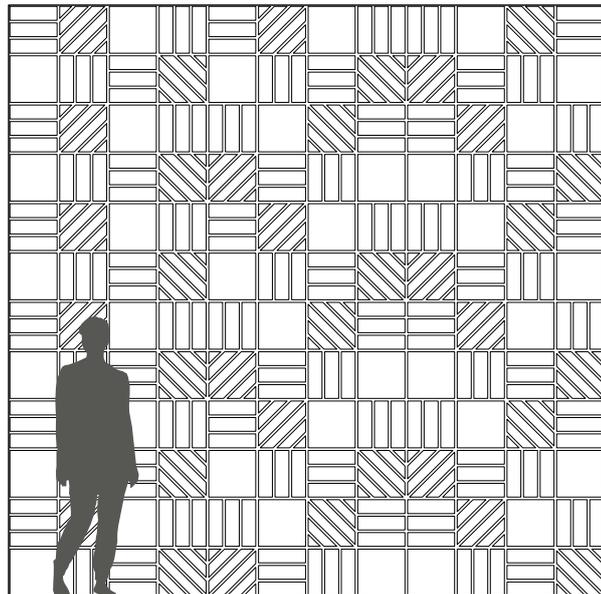
This solution gives you the freedom to create a surface with repetitive or random patterns. Troldtekt puzzle is made up of square acoustic panels with four equal sections. Three of the four sections have diagonal, vertical or horizontal grooves cut.

You can continue the pattern from panel to panel, and vary the effect by offsetting the rows or turning some panels 90, 180 or 270 degrees. It is entirely up to you which 'puzzle' is presented on the surface.

Troldtekt® puzzle



Troldtekt puzzle installed in classic pattern



Troldtekt puzzle randomly installed



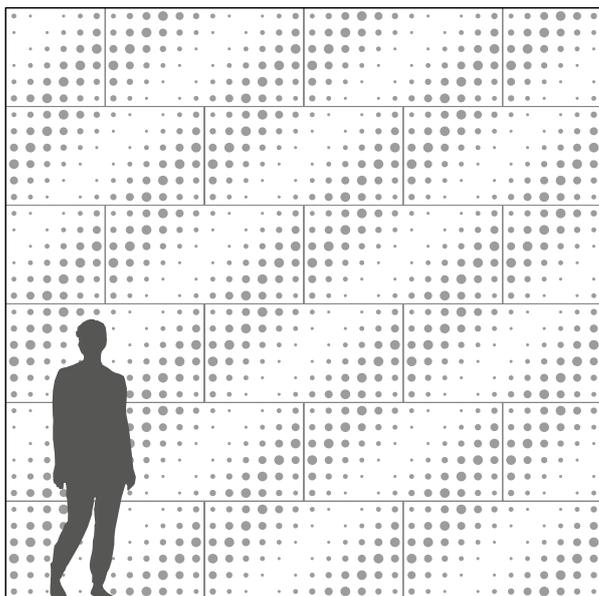
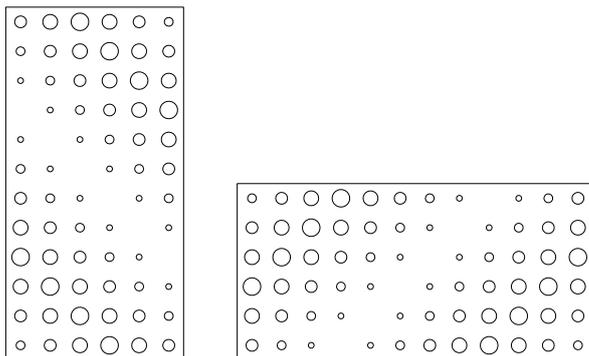


Troldekt® dots

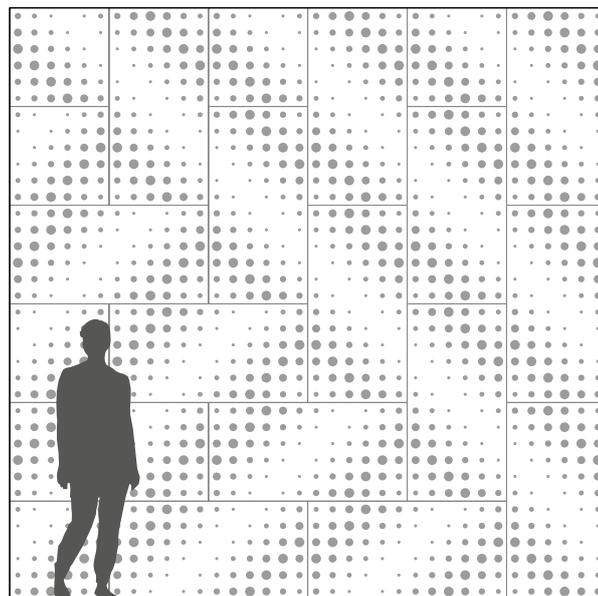
If you want a cohesive surface with a dynamic pattern of circular elements, choose Troldekt dots. The surface of each acoustic panel features 66 round indentations, varying in size from 20 to 60 millimetres in diameter.

The size of the indentations increases and decreases in a pattern across each panel – and this pattern is reflected in the entire surface when the panels are installed in stretcher bond.

Troldekt® dots



Troldekt dots installed in horizontal stretcher bond



Troldekt dots installed in an alternative pattern





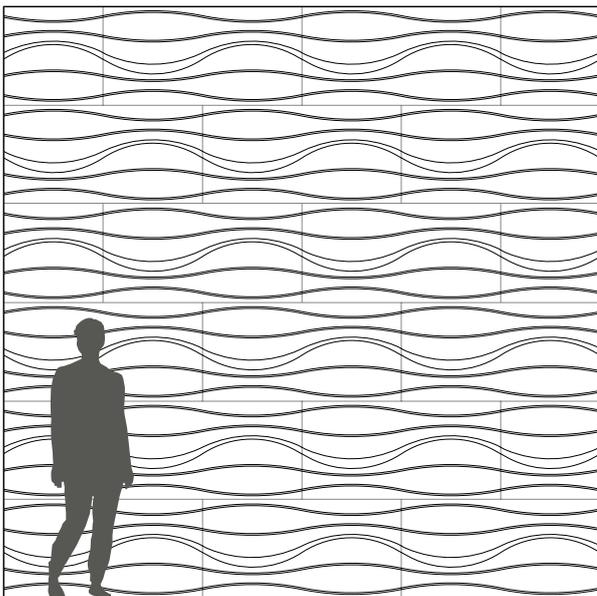
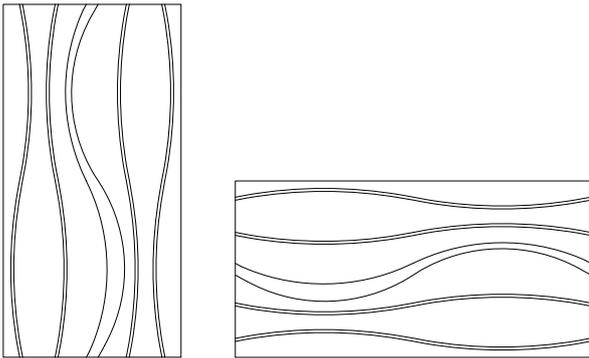
Troldtekt® curves

Join the elegant design wave by choosing Troldtekt curves. This design protected solution consists of acoustic panels with curved grooves. Each panel has four narrow curved grooves alongside a wider groove cut in the centre of the panel.

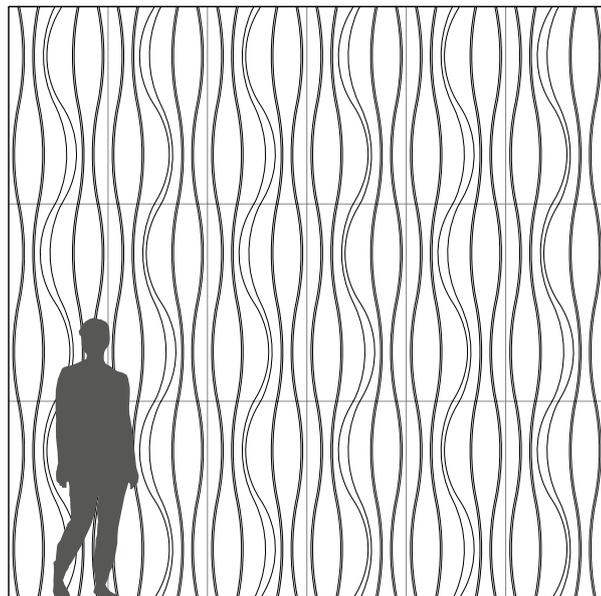
Troldtekt curves offers a seamless surface, with a lengthwise pattern of repetitive, soft curves. All the grooves match up on the short sides, so you can turn panels 180 degrees during installation without problem.

Troldtekt curves is design protected and has Registered Community Design no. RCD 006303343.

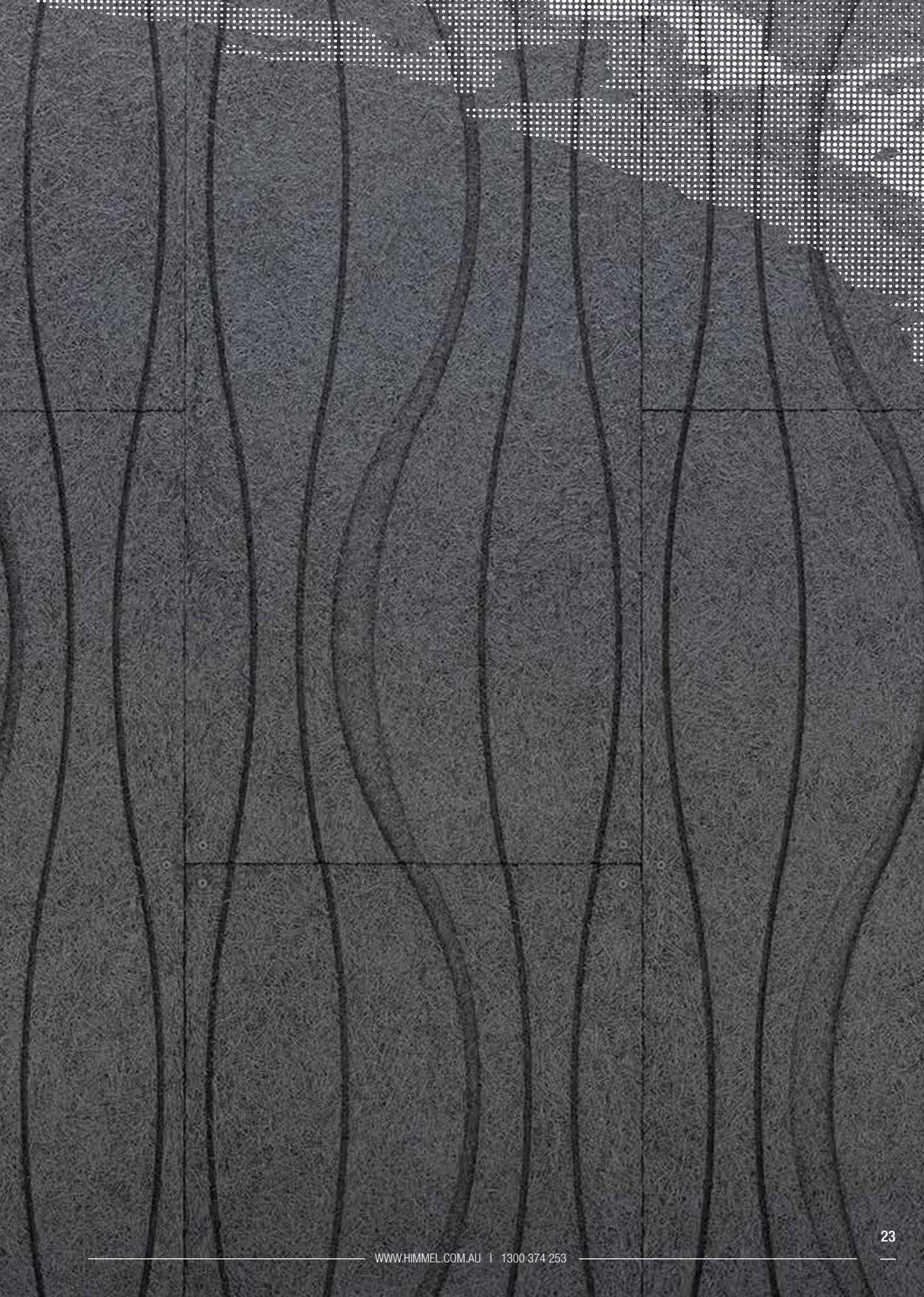
Troldtekt® curves



Troldtekt curves installed in horizontal stretcher bond



Troldtekt curves installed in vertical stack bond





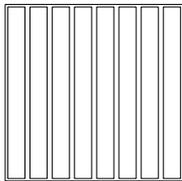
Troldtekt® tiles

Troldtekt tiles results in a design with a pattern of rectangles which can vary in size. The solution consists of quadratic acoustic panels with milled parallel grooves in the surface.

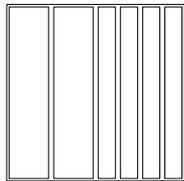
The panels are available in five variants, which can be freely combined. Panels can also be rotated 90 degrees, resulting in a broken and more varied look in the surface.

A half groove has been cut on all sides of each panel, so that an extra groove of the same size is formed where two panels join.

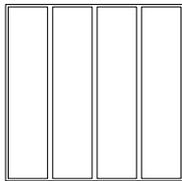
Troldtekt® tiles 4+4



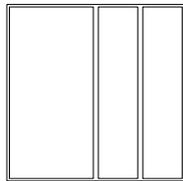
Troldtekt® tiles 2+4



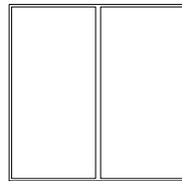
Troldtekt® tiles 2+2



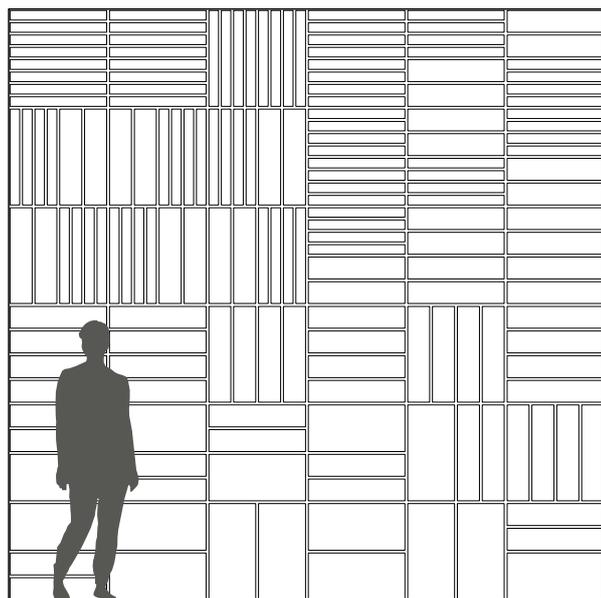
Troldtekt® tiles 1+4



Troldtekt® tiles 1+1



Troldtekt tiles installed in an alternative pattern



Troldtekt tiles randomly installed





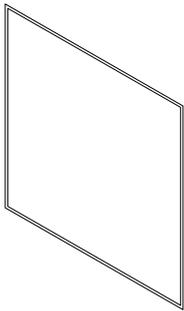
Troldtekt® rhomb

Create a surface with a scalable three-dimensional pattern by combining rhombus-shaped acoustic panels. The sides of each panel are parallel in pairs, and all sides have a half groove cut, resulting in a groove at the joints. If three panels are combined, they form a hexagon.

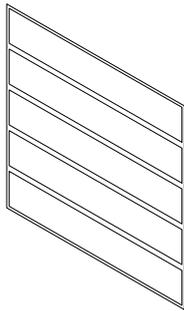
If you choose the Troldtekt rhomb hatch variant, each panel has four milled grooves that match the width of groove formed at the joints.

You can combine the rhombuses in repetitive or random patterns, producing the exact design you want.

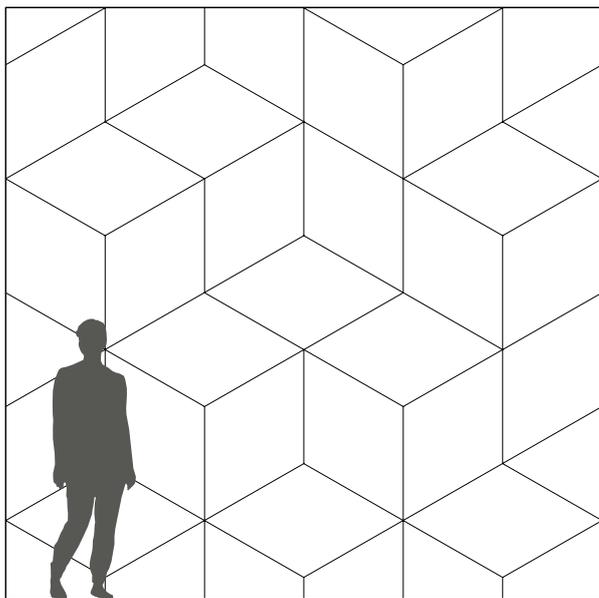
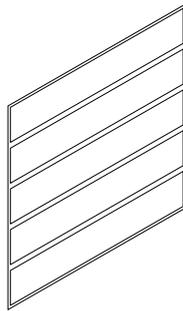
Troldtekt®
rhomb



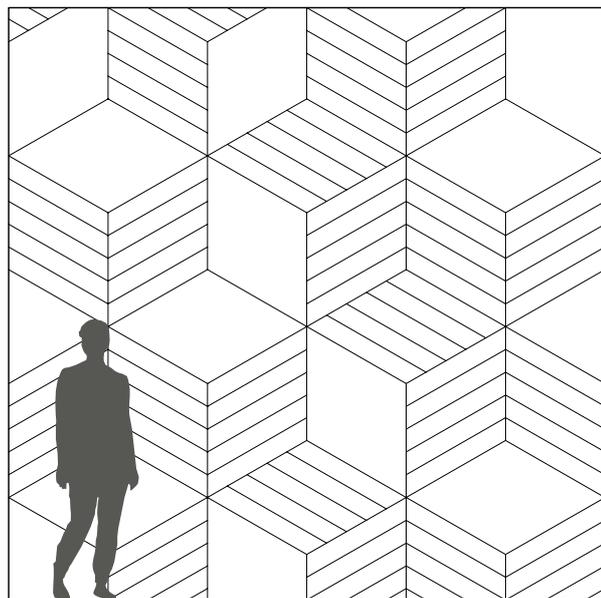
Troldtekt®
rhomb hatch left



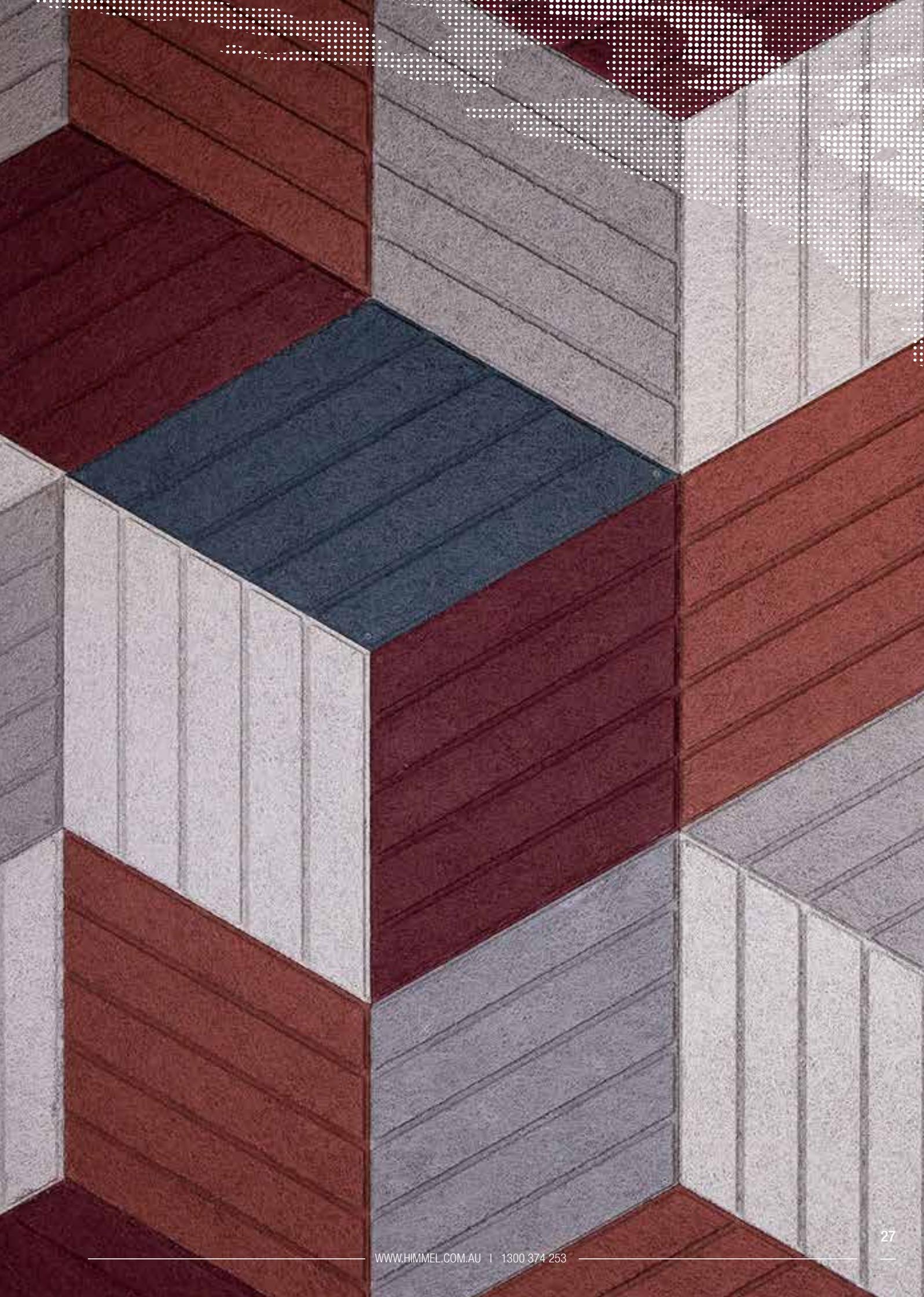
Troldtekt®
rhomb hatch right



Troldtekt rhomb randomly installed



Troldtekt rhomb hatch + rhomb installed in a mix



An atmosphere borne by ingenious design

The Sticks'n'Sushi restaurant in Tivoli Gardens, Copenhagen, is the chain's most Japanese eatery to date in terms of the design and layout, which were created in partnership with OEO Studio.

Classic Japanese patterns adorn the restaurant towards the kitchen, at the centre of the large room. The room is completely transparent due to all the windows, which offer clear views of the Pantomime Theatre in the gardens and the bustling city life on Bernstorffsgade.

The style is a mixture of Japanese and Nordic, the keywords being simplicity and minimalism. The materials include oak planks, and the ceramic floor tiles feature a fish scale-inspired pattern.

Rhomboid harmony

Anne-Marie Buemann from OEO Studio says that the priority was to create an intimate atmosphere with superior acoustics. The ceiling is clad with a grey variant of the Troldekt rhomb design solution,

which ensures pleasant acoustics and an inviting atmosphere with its soft materiality and visual pattern. The ceiling is also reminiscent of Japan, and adds further to the overall experience and feeling of openness in the room.

Project: Restaurant Sticks'n'Sushi, Tivoli Gardens, Copenhagen

Architect: Interior design in collaboration with OEO Studio

Troldekt products:

Ceiling and wall panels: Troldekt rhomb

Colour: Special colour RAL 7022

Structure: Ultrafine (1.0 mm wood wool)

Edge design: 5 mm bevelled edges, K5

Installation: Troldekt C-60 profile system







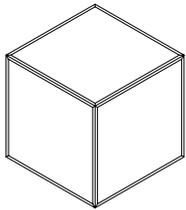
Troldtekt® rhomb mini

Like Troldtekt rhomb, this mini version can be used to create a three-dimensional pattern. The solution consists of hexagon-shaped acoustic panels that are half the size of the hexagon formed by joining three classic Troldtekt rhomb panels. The three rhombuses on the hexagon panel are bounded by grooves.

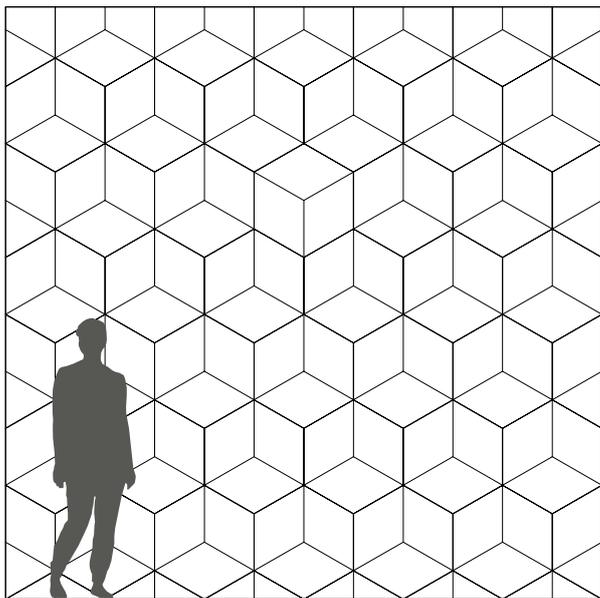
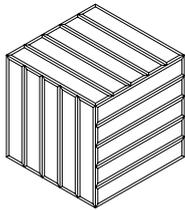
If you choose the Troldtekt rhomb hatch mini variant, each rhombus will also contain four parallel grooves (12 grooves per acoustic panel).

The panels have grooves cut on the edges, and by rotating the panels you can vary the pattern so that the three-dimensional effect is even more pronounced.

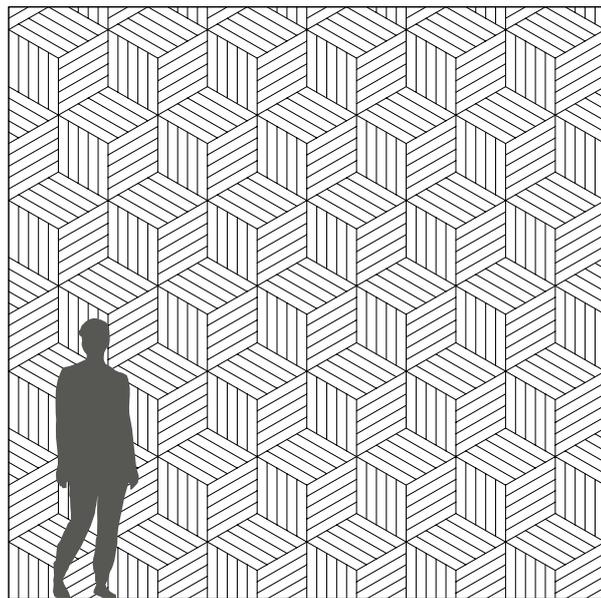
Troldtekt®
rhomb mini



Troldtekt®
rhomb hatch mini



Troldtekt rhomb mini installed in classic pattern



Troldtekt rhomb hatch mini installed in classic pattern



Design ceilings used in unique interior

A raw concrete setting has been styled using exclusive products in the UniqueRoom furniture, interior design and art store. There is only room here for design that stands out from the crowd – and that is why the owner chose Troldekt design solutions.

The UniqueRoom furniture, interior design and art store in Copenhagen is laid out as a home with a kitchen, bathroom, living rooms and hallway. The style is so uncompromisingly exclusive that it inspires the dreams of architects and design-conscious homeowners alike. The furniture has been flown in from distant continents. There is latte art in the customer coffee and art from Denmark's greatest painters.

“Solutions become exciting when the designer has thought outside the box, and when there is synergy between function, quality, design and

price. Our interior designs must have a look that makes people think ‘wow’,” says Nicolai Højgaard, co-owner of UniqueRoom.

“Many homes have concrete or completely white walls, which create an anonymous and cold setting. This places demands on the things we fill the rooms with. I focus on materials, and I think wood is an exciting material to work with. It's living and organic, and therefore contributes warmth and soul that can create interesting synergies with hard surfaces,” he adds.









Creates long lines in the rooms

UniqueRoom has Troldekt ceilings installed, because the concrete shell results in a poor sound environment. Nicolai Højgaard was looking for an elegant acoustic solution, and chose the Troldekt line solution for one of the four rooms in the store.

“I am fascinated by Troldekt line, because the design adds long lines to the room, which is just fantastic. These give the room more length and depth than it would otherwise have. And you also get outstanding acoustics,” says Nicolai Højgaard.

“Many of my customers are quite taken by the design ceiling and want to know more. They are often working on building projects and therefore have a focus on how to create good acoustics. Everyone wants their home to be a place where you want to spend time. This is what’s in focus when I help people with interior design,” says Nicolai Højgaard.

Project: UniqueRoom furniture, interior design and art store in Copenhagen, Denmark

Troldekt products:

Ceiling and wall panels: Troldekt and Troldekt line

Colour: Natural grey and black 207

Structure: Ultrafine (1.0 mm wood wool)

Edge design: Square edges, K0

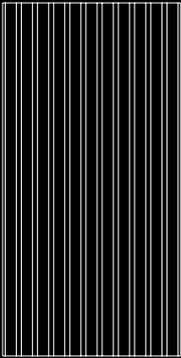
Installation: With Troldekt screws

Design overview

All solutions come in 35 mm panel thickness and with ultrafine structure (1.0 mm wood wool).

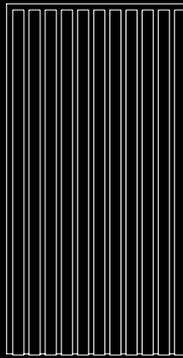
Troldtekt® line

Troldtekt®
line

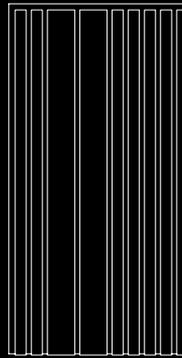


Troldtekt® line design

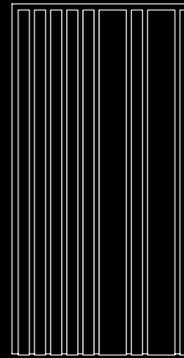
Troldtekt®
line design 11



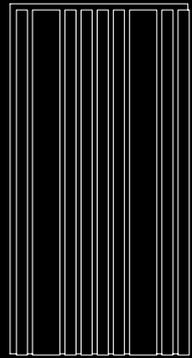
Troldtekt®
line design 11 4/6



Troldtekt®
line design 11 7/10

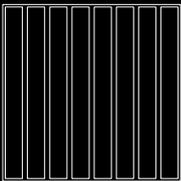


Troldtekt®
line design 11 3/9

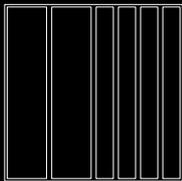


Troldtekt® tiles

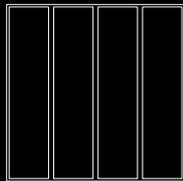
Troldtekt®
tiles 4+4



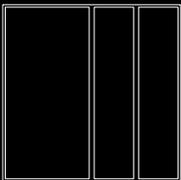
Troldtekt®
tiles 2+4



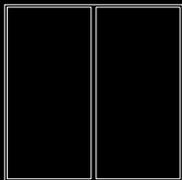
Troldtekt®
tiles 2+2



Troldtekt®
tiles 1+2

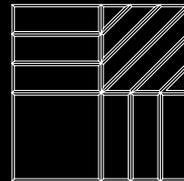


Troldtekt®
tiles 1+1



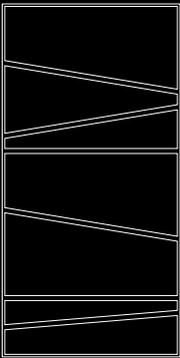
Troldtekt® puzzle

Troldtekt®
puzzle



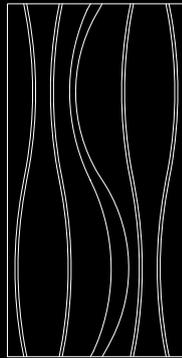
Troldtekt® tilt line

Troldtekt®
tilt line 7



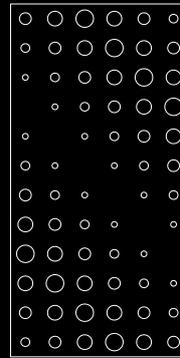
Troldtekt® curves

Troldtekt®
curves



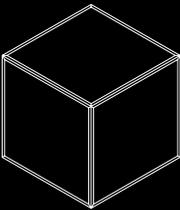
Troldtekt® dots

Troldtekt®
dots

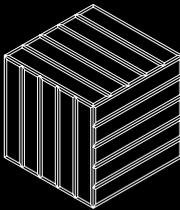


Troldtekt® rhomb mini

Troldtekt®
rhomb mini

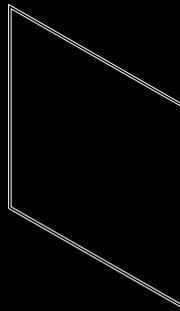


Troldtekt®
rhomb hatch mini

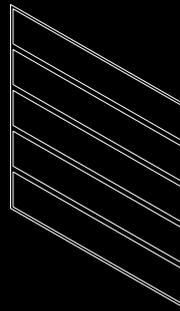


Troldtekt® rhomb

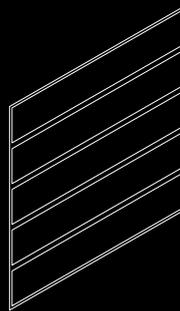
Troldtekt®
rhomb



Troldtekt®
rhomb hatch left



Troldtekt®
rhomb hatch right





Natural raw materials

Troldtekt is cement-bonded wood wool panels made using nature's own materials – wood and cement.



Wood



Cement



Cement-bonded wood wool

Six good reasons for choosing Troldtekt

Troldtekt design solutions have the same excellent properties and certifications as classic Troldtekt acoustic panels.

Superior acoustics

The combination of wood and cement gives Troldtekt acoustic panels a unique surface structure which effectively absorbs sound and reduces reverberation time in a room. Troldtekt is a great choice for everything from office buildings and schools to cultural centres, restaurants and private homes.

Healthy indoor climate

Troldtekt panels are a natural, breathable material which can absorb and release moisture. The acoustic panels are hypoallergenic and have achieved leading Danish and international indoor climate certifications.

Documented sustainability

Troldtekt panels are sustainable throughout the entire product life cycle. The acoustic panels are made exclusively from nature's own materials, are produced with minimal environmental impact, and can return to nature as compost.

Effective fireproofing

Troldtekt panels are made from wood and cement. Wood is an organic and flammable material, but every single wood fibre in a Troldtekt panel is encapsulated and protected by cement. Troldtekt panels therefore have low flammability and only emit low heat during a fire, and almost no smoke.

Natural strength

Troldtekt panels combine the strength of cement with the flexibility of wood, and have a lifetime of at least 75 years. Troldtekt panels are a rugged, durable material, even when subject to moisture or ball impacts. The cement gives the acoustic panels their stable shape and moisture tolerance.

Flexible design options

A range of colours, textures, designs, edge designs and suspension systems offer great flexibility in designing custom acoustic solutions. Special functions can also be integrated into Troldtekt ceilings, such as lighting and speakers.

Good acoustics since 1935

Troldtekt A/S has been designing, developing and manufacturing Troldtekt acoustic panels since 1935 – from locally sourced natural materials and under modern conditions with minimal environmental impact. Our products are developed and manufactured in Denmark, and distributed in a number of countries.

We are trendsetting

It is our vision to be a trendsetter within intelligent acousticsolutions that focus on a sustainable indoor climate. We therefore develop new solutions in close collaboration with industry experts, architects and other building consultants.

We take responsibility

It is important for us to play an important role in society – also for our own sake. We believe that sustainability pays in the long run. We have therefore systematised our social responsibility efforts by committing to the UN Global Compact – the world's largest voluntary corporate social responsibility initiative.

We create added value

The sustainable Cradle to Cradle design concept is a key part of our business strategy. The concept focuses on ensuring that materials add value for the environment, for society and for our business.



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