

# Trolldtekt® Plus with fleece

Maximum acoustic effect,  
minimal thickness



# The sound choice for enhanced acoustics

Troldtekt Plus with fleece is a series of cement-bonded wood wool panels with a thin acoustic fleece applied to the back. This combines acoustic performance with a solution that is easy to handle, store and install on site.

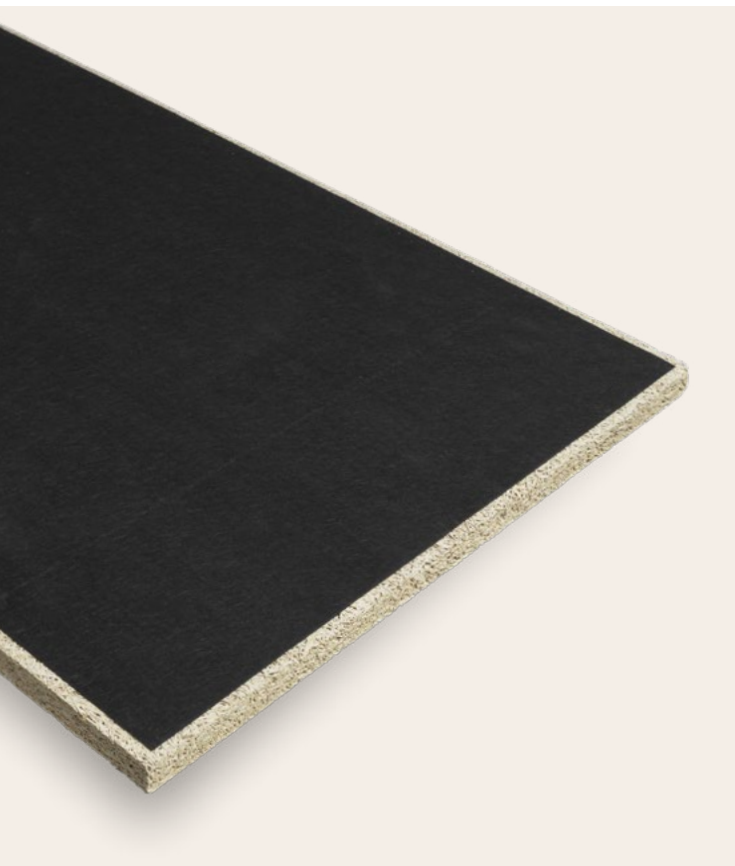
Troldtekt Plus with fleece is the sound choice for schools and other educational institutions, offices, leisure facilities, retail premises and many other building types with high acoustic absorption requirements. Despite its minimal thickness, the solution stands out for its ability to control sound reverberation effectively. This helps ensure greater speech intelligibility and improves human wellbeing.

Troldtekt Plus with fleece is most effective when used as a suspended ceiling with a total construction height of 200 mm. Here, the solution can achieve Class A sound absorption, meaning it can absorb between 90 and 100 per cent of sound - with an  $\alpha$  (alpha value) = 0.90–1.00 depending on the chosen panel thickness, whether 15, 25 or 35 mm.

## Easy handling and storage

Troldtekt Plus with fleece is available in thicknesses as low as 15 mm and weighs as little as 7.3 kg/m<sup>2</sup>. This makes the panels easy to stack, cut, lift and install, making work on the building site even more efficient. The thickness of the panels also means that costs on transport and storage are reduced.

Troldtekt Plus with fleece can be assembled as a complete ceiling or wall cladding. It is also ideal as a removable acoustic ceiling in a suspended profile system, allowing for easy inspection of the services above.



## What is an acoustic fleece?

Troldtekt Plus with fleece is a two-layer acoustic panel with a thin acoustic fleece applied to the back. The combination of the Troldtekt cement-bonded wood wool panel and the specially developed fleece provides optimised sound absorption. With a thickness of only 0.35 mm, the fleece is so thin that it does not affect the thickness of the panel and yet achieves Class A sound absorption.



## Multiple colours, structures and designs are available

Troldtekt Plus with fleece is available as either unpainted or painted panels in standard and special colours. Users can also choose between fine, ultrafine and extreme fine structures and from a range of standard edge profiles.

Options for the surface can be drawn from the Classic range or Troldtekt line (35 mm), Troldtekt

line design (35 mm), Troldtekt v-line (25 mm) and Troldtekt tiles T24 (25 mm).

Our four design solutions are available with different combinations of milled surface grooves for creating an elegant and visually appealing ceiling.

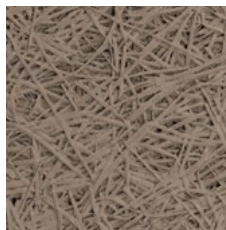
Natural wood



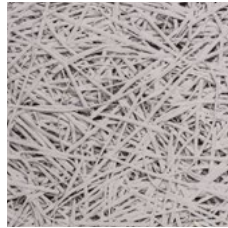
Natural grey (FUTURECEM)



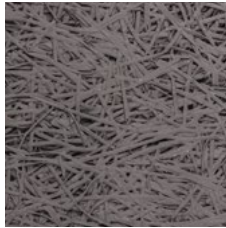
Clay 210



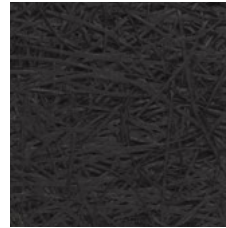
White 101



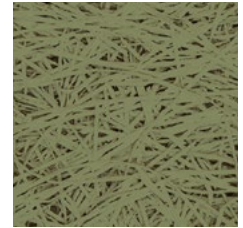
Grey 202



Grey 208



Black 207



Custom colours

## Acoustic performance

Troldtekt Plus with fleece has a weighted sound absorption, or alpha value, of up to  $\alpha_w$  1.00 depending on the variant and the total suspension depth of the ceiling. This means that the solution absorbs up to 100 per cent of the sound that reaches the surface. This makes it ideal for educational institutions, offices,

leisure facilities, retail premises and many other building types with high acoustic requirements.

The table below shows how effectively the different Troldtekt acoustic solutions with an ultrafine structure absorb sound:

Installation height	Troldtekt acoustic 25 (without fleece) Class ( $\alpha_w$ )	Troldtekt Plus 25 (fleece) Class ( $\alpha_w$ )	Troldtekt Plus 25+20 (mineral wool) Class ( $\alpha_w$ )	Troldtekt Plus 25+40 (mineral wool) Class ( $\alpha_w$ )
45 mm	D (0,50)	C (0,60)*	C (0,75)	–
55 mm	D (0,50)	C (0,65)	B (0,80)*	–
65 mm	D (0,55)*	C (0,65)*	B (0,80)*	A (1,00)
200 mm	C (0,70)	A (0,95)	A (0,95)	A (1,00)

Troldtekt Plus with fleece is available in three variants with panel thicknesses of 15, 25, or 35 mm.

\*Estimated

In the table above, Troldtekt Plus 25 is compared to three alternative configurations: a standard 25 mm panel without acoustic fleece, a variant with 20 mm mineral wool on the back, and a variant with 40 mm mineral wool on the back.

# Why choose Troldekt Plus with fleece?

## Excellent acoustics

As a suspended ceiling, Troldekt Plus with fleece makes it possible to achieve Class A sound absorption at a suspension depth of 200 mm, while the solution also absorbs sound effectively at low frequencies (125–250 Hz).

## Robust and durable

The combination of wood and cement means that Troldekt cement-bonded wood wool panels have a service life of at least 50 years. The panels require virtually no maintenance during use and can also withstand high humidity.

## Effective fire performance

Troldekt Plus with fleece is fire-tested and classified in accordance with EN 13501. The solution is available both with the classification B-s1,d0 and in a non-combustible variant with the classification A2-s1,d0.

## Easy to assemble

The panels are available in a range of sizes and edge profiles, ready for installation into a T24 or T35 profile system. Alternatively, they can be installed in a suspended C60 profile system. The Troldekt Plus 25 and Troldekt Plus 35 can also be mounted directly onto wooden battens. With the panel thickness available as low as 15 mm and low weight down to 7.3 kg/m<sup>2</sup>, it ensures quick and easy assembly while also providing cost savings on transport and storage.

## Flexible design

Choose between painted and unpainted acoustic panels in three different structures in traditional Troldekt or from four of our distinctive design solutions: Troldekt line, Troldekt line design, Troldekt v-line and Troldekt tiles T24.

## Documented sustainability initiatives

You can choose a solution in a variant based on carbon-reduced FUTURECEM™ which achieves a carbon footprint which is 26% lower than that of Troldekt based on grey cement and 38% lower than that of Troldekt based on white cement. All wood in the acoustic panels comes from certified forests (FSC® C115450 and PEFC/09-31-030).



Contact us to find out more about prices, delivery and assembly

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