

# Troldtekt® acoustic panels

## Data sheet

### THE PRODUCT – TROLDTEKT ACOUSTIC PANELS

Troldtekt are cement-bonded wood wool ceiling and wall panels made from wood and cement.

The product consists of wood (spruce) which is shredded into wood wool and mixed with cement. We offer PEFC™-certified or FSC®-certified Norway spruce (FSC® C115450). Both certifications guarantee that the wood comes from responsible forestry operations and other controlled sources.

Troldtekt can be surface-treated, but is often used unprocessed (natural wood and grey natural). Due to the nature of the material, colour variations may occur with both natural wood and grey natural. These colour variations are most evident in the grey panels, where the cement is 100% responsible for the grey Troldtekt look.

To achieve an even distribution of the colour tones, we recommend mixing the panels

during installation. Among the factors affecting colour variations are water/cement ratio, water content of the wood, drying rate, steam curing and curing moisture.

Troldtekt acoustic panels are suitable for commercial, industrial and residential builds.

### PRODUCT STANDARDS, LABELLING AND CERTIFICATION

#### CE-marking

Within the EU, all building materials are legally required to be CE-marked. The CE-mark indicates that the building material can be legally sold and that it complies with the product standard to which the mark refers. Troldtekt products are CE-marked, and in addition to the marking we state:

Name of producer  
Troldtekt A/S  
Sletvej 2a  
DK-8310 Tranbjerg  
Denmark

Certifications  
0615-CPR-222958G  
0615-CPR-80474G

Product standard number  
EN 13168:2012+A1:2015  
EN 13964:2014

Declaration  
See product data on page 2

#### Other approvals

Cradle to Cradle: Troldtekt is Cradle to Cradle-certified at Gold level. Troldtekt acoustic panels are documented as being free of harmful substances and can therefore safely be returned to the biological cycle. Additionally, waste from the production of Troldtekt acoustic panels is returned to the technical cycle and used as a resource in new cement at Aalborg Portland.



Indoor climate labelling: Troldtekt is indoor climate-labelled in the best degassing and particle release categories.



M1 classification: Troldtekt is M1-classified by the Finnish Building Information Foundation RTS sr. This is the best category, and means that the panels have an extremely low emissions level for volatile organic compounds (VOC).



Blue Angel: Troldtekt is eco-labelled under the German Blue Angel eco-labelling scheme, which guarantees that the product has a low impact on the environment and the climate and meets high standards for health protection.



PEFC and FSC: Troldtekt is PEFC™ and FSC®-certified (FSC® C115450), which means that all our products are manufactured using wood from responsible forestry operations and other controlled sources. Customers can choose whether they want their Troldtekt acoustic panels to be FSC or PEFC-certified.



Light reflection: Light reflection for different types of Troldtekt panels (measured by DELTA/Force Technology):

Troldtekt white 101	70.8 %
Troldtekt natural wood	55.2%

#### Limitations:

- Must not be used as a structural component
- Not suitable for surfaces subjected to frequent rubbing or physical contacts
- Separation or protection must be provided to Troldtekt acoustic panels from heat sources such as fireplaces, flues and chimneys.
- 1200mm length panels at 25mm and 35mm thickness are over 7.5kg. Specific fastening method to satisfy seismic requirements is required when used in suspended grid systems

## SPECIFICATION GUIDE - TROLDTEKT ACOUSTIC PANELS

The ceiling and/or wall lining shall be Troldtekt acoustic panels [ \_ ] mm thick manufactured by Troldtekt A/S and shall be installed in

accordance with Troldtekt installation instructions.

## COMPLIANCE

Troldtekt acoustic panels meet the performance requirements of NZBC Clause B1 Structure (B1.3.1, B1.3.2, B1.3.3(a), B1.3.4), Clause F2 Hazardous Building Materials (F2.3.1) providing:

- It is not damaged, dented or fractured.
- It is installed in accordance with installation instructions.

## USE AND MAINTENANCE

Troldtekt panels usually require no subsequent care. However, we recommend regular cleaning along with other surfaces – and otherwise as required. Light cleaning of the panels is easy using a vacuum cleaner with a brush nozzle. Should vacuum-cleaning prove

insufficient, you can wipe the panels using a lightly damp cloth. If you subsequently want to paint the Troldtekt ceiling, you can use a hand sprayer. Water-based paint will not reduce the sound-absorbing performance of the panels.

## RECYCLING

The entire range of Troldtekt cement-bonded wood wool panels are Cradle to Cradle-certified in the gold category.

The cement in Troldtekt's acoustic panels boosts oxygen levels during the composting process, while the wood adds organic material to the compost.

Consequently, we have complete documentation of the substances in the products, and documentation that the products can be composted and safely returned to nature as a soil conditioner.

## TOLERANCES

It is important to note that Troldtekt consists of the natural material wood - together with cement extracted from Danish mineral resources. The very nature of the material composition – wood wool and cement – will incur small variations in the panels. Panel dimensions and weights remain inside the tolerance

indicated at 23 +/- 2 °C and 50 +/- 5% relative humidity. However, inappropriate storage and lack of acclimatisation could alter panel dimension and weight. It is therefore important that you observe the installation, storage and acclimatisation instructions carefully.

## PRODUCT DATA

This table indicates the tolerances declared by us in accordance with EN 13168:2012+A1:2015, the standard for cement-bonded wood wool and double-layer panels with cement-bonded wood wool, and EN 13964:2014, the standard for suspended ceilings.

### Product Properties and Performance

#### DIMENSIONS

Width (mm)	600
Length (mm)	600/1200/2400
Thickness (mm)	25 35

#### Weight (kg/m<sup>2</sup>)

Ultrafine	11.4 15.2
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#### TOLERANCES

Length (mm)	> 1250 : ±2.0
	≤ 1250 : ±1.0
Width (mm)	±1.0
Thickness (mm)	Length > 1250 : ±2.0
	Length ≤ 1250 : ±1.0
% by weight	±10
Perpendicularity (mm/m)	±≤2
Planeness (mm)	±≤3

#### FIRE

Reaction to fire acc. to ISO 5660-1:2015	Group 1-S
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#### IMPACT RESISTANCE

Ball impact certification acc. to DIN 18032-3:2018-11	1A
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#### SUBSTANCES

Chloride %	≤ 0.06
Formaldehyde	E1*

#### INDOOR CLIMATE

Degassing	10 days
Particle release	Low

#### STANDARD

Declared in accordance with	EN 13168:2012+A1:2015 EN 13964:2014
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\* No measurable formaldehyde emission