FR-felt acoustic panels

| Product information

FR-felt acoustic panels

The Fog & Venø fire-retardant felt panel (FR-Felt) is fire-approved in accordance with the test standards EN 13823 and ASTM E84. The FR-Felt panel has been tested both horizontally and vertically, which means that the panel is approved for mounting on both ceilings and walls. FR-Felt panels are approved as a Class B (EN13823) acoustic panel. With this approval, we can supply fire-approved acoustic panels that are certified for use in public and private construction where there are requirements for fire-approved acoustic products.

You can mount our panels directly onto the load-bearing wall or partition wall. If you wish to optimise the acoustic effect, you can mount the panels on a constructed frame of wood, e.g., 45x45 mm, with 45 mm insulation in it; this will increase the acoustic effect.

Our fire-retardant acoustic panel is based on our standard acoustic panel with a polyester backplate, where the plywood slats are attached. The entire panel can be mounted in the same simple way as our standard panels (see the mounting instructions).

With Fog & Venø FR-rated acoustic panels, you get:

Fire-approved
FR-felt acoustic panels are fire-secured and meet the strictest safety standards EN 13823 / Class B and ASTM E84.

Danish craftmanship
Danish design and production ensure a high standard of quality.

Environmentally friendly materials
Our panels are made from FSC® certified wood.

Healthy indoor climate
Our acoustic panels refine room acoustics and improve the indoor climate.

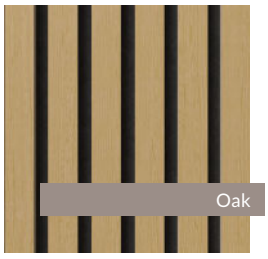
Functions:

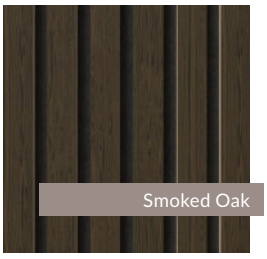
- Local production
  All panels are produced in Denmark.
- Acoustic panels for commercial construction
  Ideal for commercial building projects, meets the safety standards EN 13823 / Class B and ASTM E84.
- Quick installation
  Quick and easy installation.
- Minimal use of tools
  Requires only a few tools for installation and adjustment.
- Lightweight construction
  The panels have a low weight, which simplifies handling.
- Varied surface options
  Possibility for different veneer surfaces.
- Environmentally certified materials
  FSC®-certified plywood and veneer.
- Cleaning
  Our panels can easily be cleaned with a wrung-out damp cloth or light vacuuming.

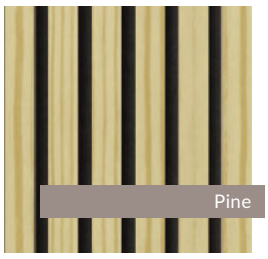
Fire-approved in accordance with the test standards EN 13823 and ASTM E84.

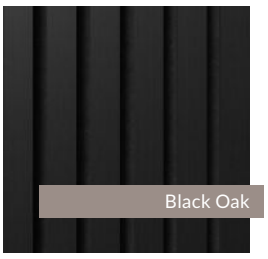
Wood panels are made from FSC™ certified wood and veneer and other controlled materials.
FSC™ C165957

Sort as recycled wood.









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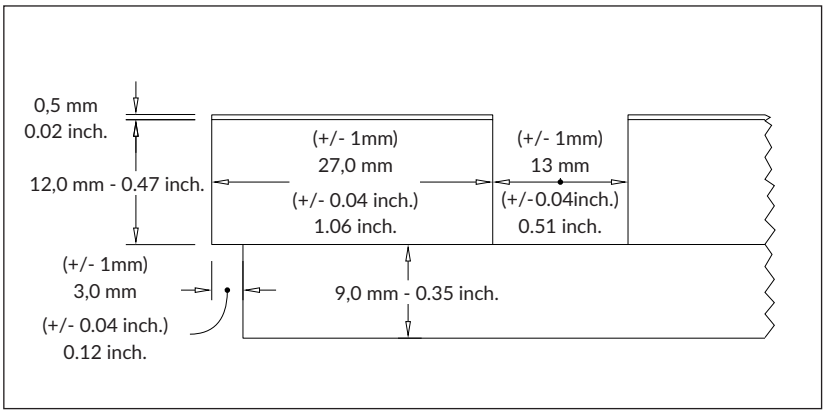
27 mm Lamella Width

EN 13823 / B-s2,d0 - ASTM E84 / Class A

Veneer	Birch plywood	Felt	Dimensions	m²	Weight
Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	11,9 kg 14,5 kg
White Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	11,9 kg 14,5 kg
Grey Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	11,9 kg 14,5 kg
Smoked Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	11,9 kg 14,5 kg
American Walnut			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	11,9 kg 14,5 kg
Pine			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	11,9 kg 14,5 kg
Black Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	11,9 kg 14,5 kg



Tolerances

Squareness: +/- 1mm (0.04inch)
Thickness +/- 1mm (0.04inch)
Weight +/- 10%

31 mm Lamella Width

EN 13823 / B-s1,d0

Veneer	Birch plywood	Felt	Dimensions	m²	Weight
Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	11,9 kg 14,5 kg
White Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	11,9 kg 14,5 kg
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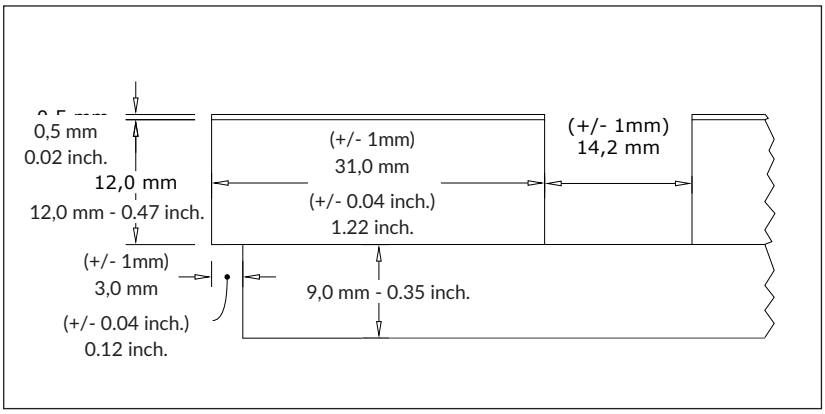

Tolerances

Squareness: +/- 1mm (0.04inch)
Thickness +/- 1mm (0.04inch)
Weight +/- 10%

40 mm Lamella Width

EN 13823 / B-s1,d0 - ASTM E84 / Class A

Veneer	Birch plywood	Felt	Dimensions	m²	Weight
Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	14,4 kg 17,5 kg
White Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	14,4 kg 17,5 kg
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American Walnut			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	14,4 kg 17,5 kg
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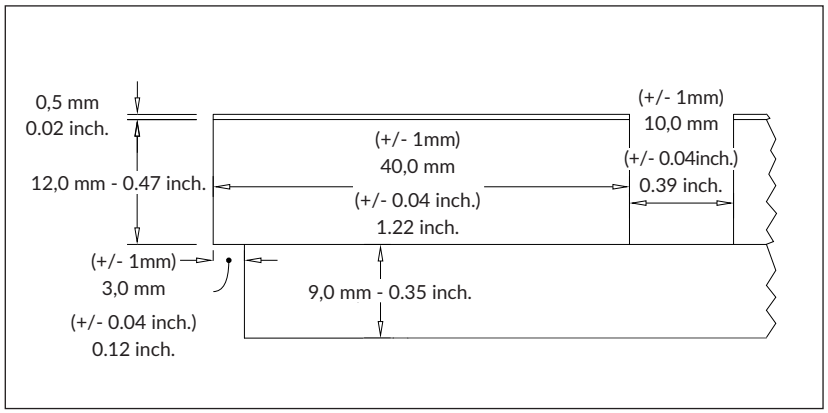
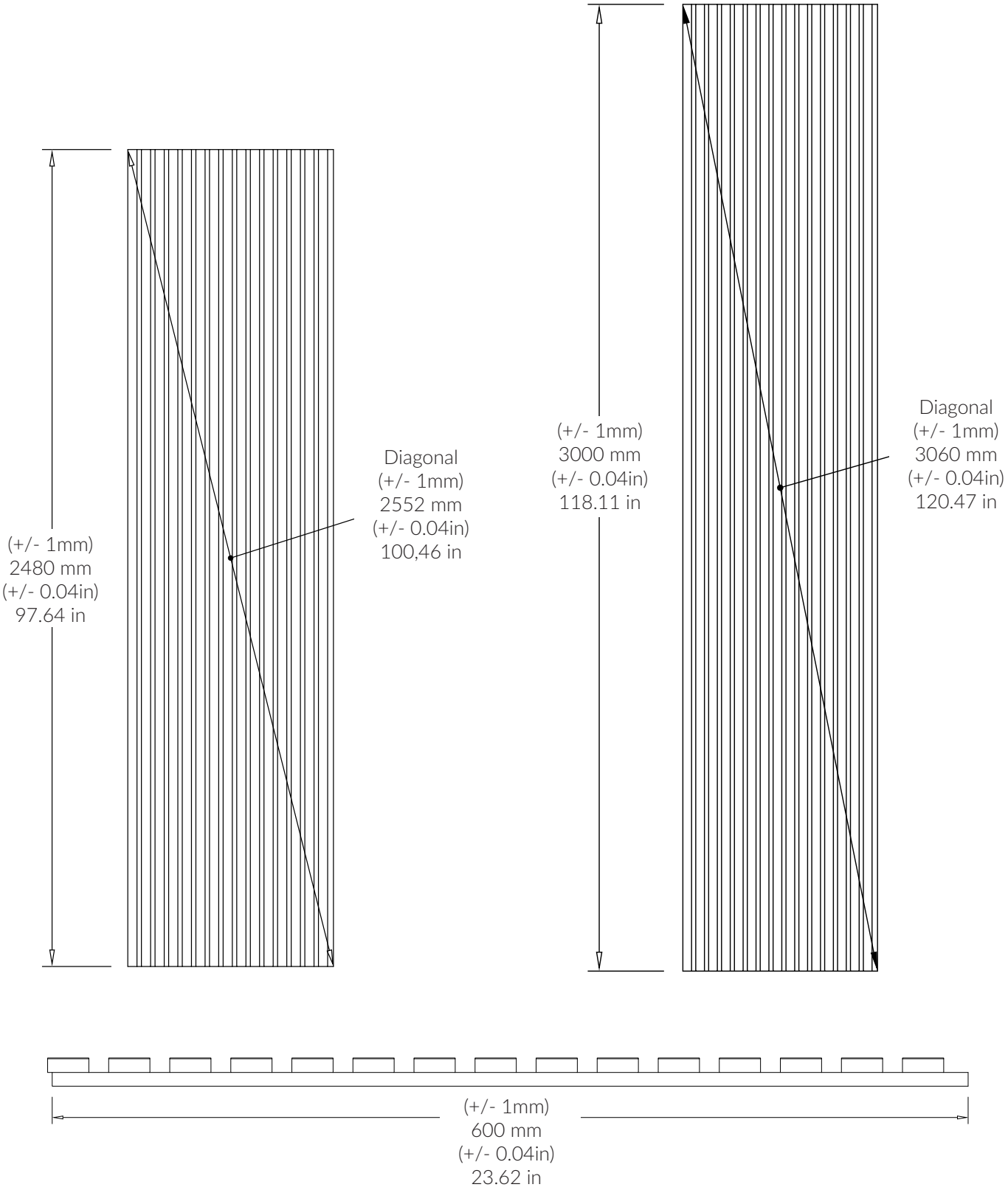
Black Oak			21 x 600 x 2480 mm - 0.83 x 23.62 x 97.64 inch 21 x 600 x 3000 mm - 0.83 x 23.62 x 118.11 inch	1,48 1,80	14,4 kg 17,5 kg



Tolerances

Squareness: +/- 1mm (0.04inch)
Thickness +/- 1mm (0.04inch)
Weight +/- 10%

Specifications



Installation Guide for Acoustic Panels with Insulation

By integrating insulation between the wall and the acoustic panels, you not only enhance sound quality and control but also contribute to the fire safety of the room. This guide will take you step by step through the process of installing your acoustic panels with the addition of mineral wool insulation.

Materials required:

- Battens 45 x 45 mm (1.77 x 1.77 inches) / 45 x 90 mm (1.77 x 3.54 inches)
- Mineral wool 45 mm (1.77 inches) / 90 mm (3.54 inches)
- Mounting screws (minimum length: 4.0 x 30 mm / 0.16 x 1.18 inches)

1. Installing the Battens

Start by arranging your 45 x 45 mm (1.77 x 1.77 inches) battens in the desired area. This forms the base of your frame. Next, install additional battens within the frame, ensuring a spacing of 600 mm (23.62 inches) from edge to edge. This provides proper support for both the insulation and the acoustic panels.

2. Inserting the Mineral Wool

With the frame in place, insert the mineral wool insulation into the open spaces between the battens. Ensure the mineral wool completely fills the spaces, leaving no air gaps, to minimise fire risk.

3. Installing the Acoustic Panels

Secure the acoustic panels to the battens using screws. Use three screws per batten to ensure stable installation.

Refer to Figure 3 for a visual guide on screw placement and mounting techniques.

Recommended tools:

- Spirit level
- Electric screwdriver
- Plunge saw or circular saw for adjustments
- Caulking gun for adhesive installation
- Optional: Jigsaw for cutouts

Figure 1

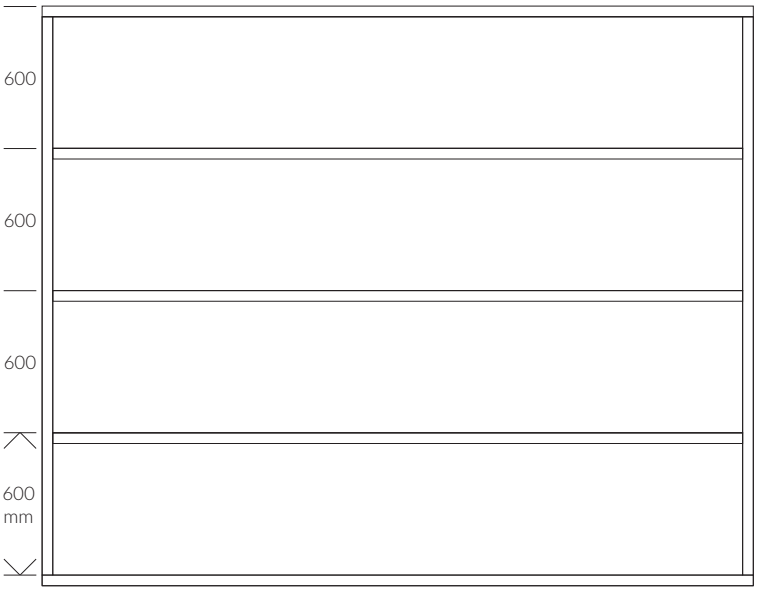


Figure 2

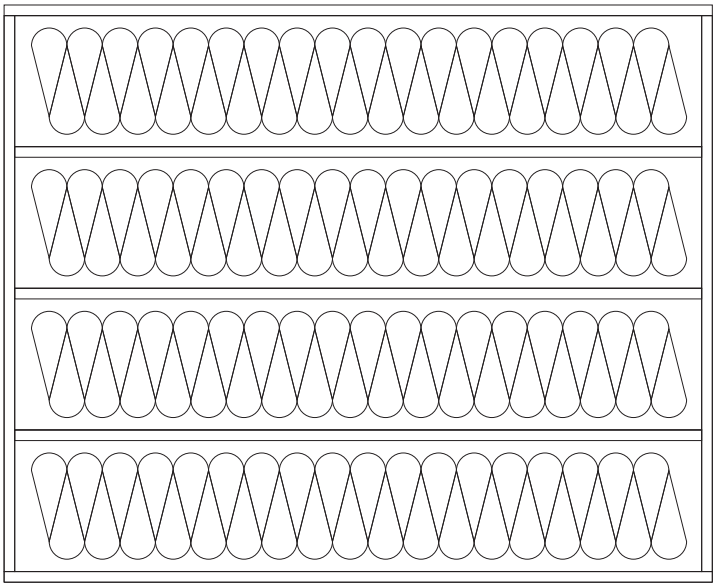


Figure 3

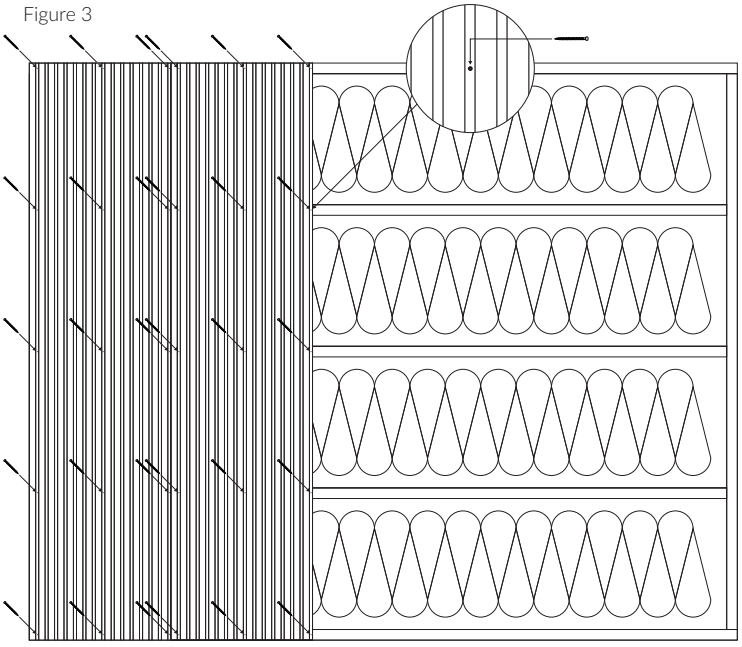
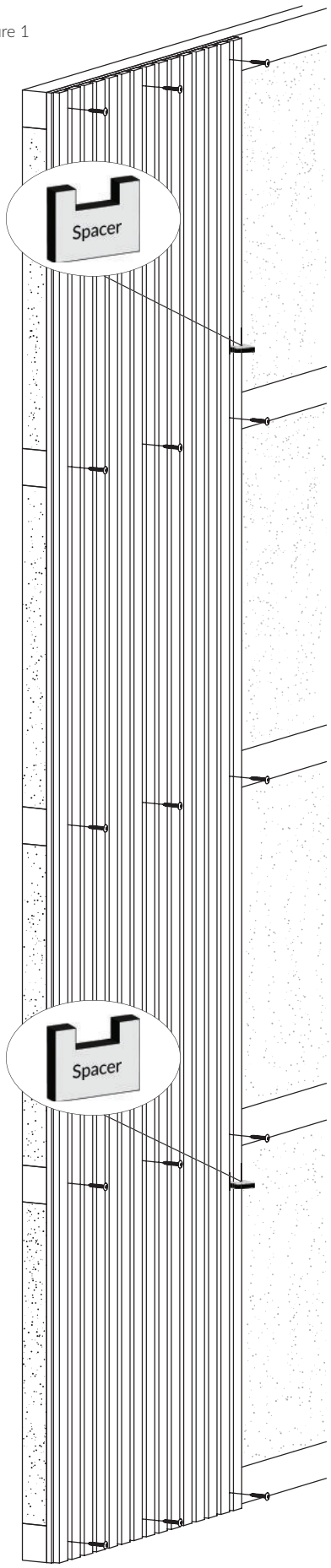


Figure 1



Mounting with Spacers

To ensure the correct spacing between the panels, use our spacer blocks.

- Place two spacers on the last slat of the installed panel – approximately 50 cm (19.69 inches) from both the top and bottom.
- Press the next panel against the spacers to position it correctly.

This method ensures all panels are installed with precise and uniform spacing.

Figure 2

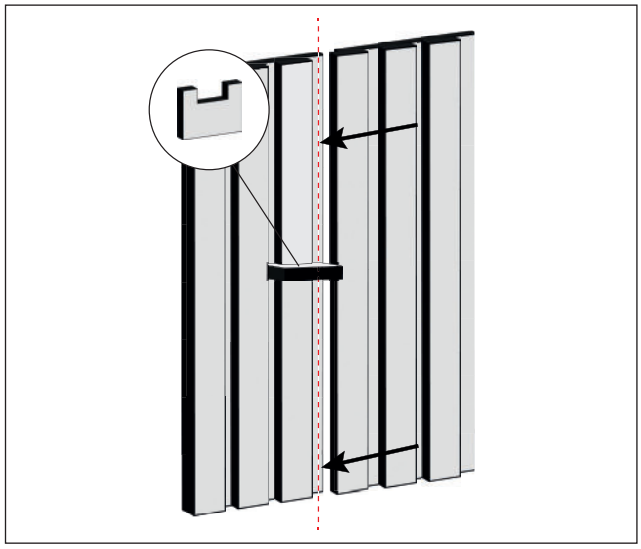
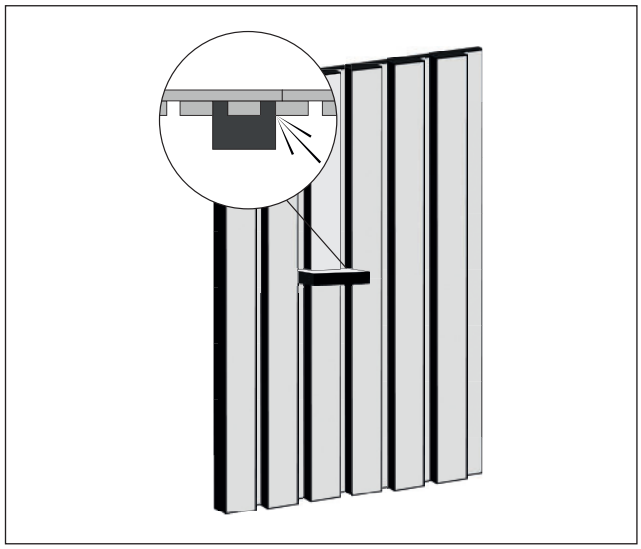


Figure 3



Acoustic measurements

Sound test i.a.w.. DS/EN ISO 354:2003

Sound test with 45mm insulation

Test area:	10.8 m^2	116 ft^2
Room volume:	215 m^3	7592.65 ft^3
Room surface area:	305 m^2	3282.99 ft^2

Frequency f [Hz]	a_p
125	0.20
250	0.70
500	1.00
1000	0.90
2000	0.65
4000	0.55

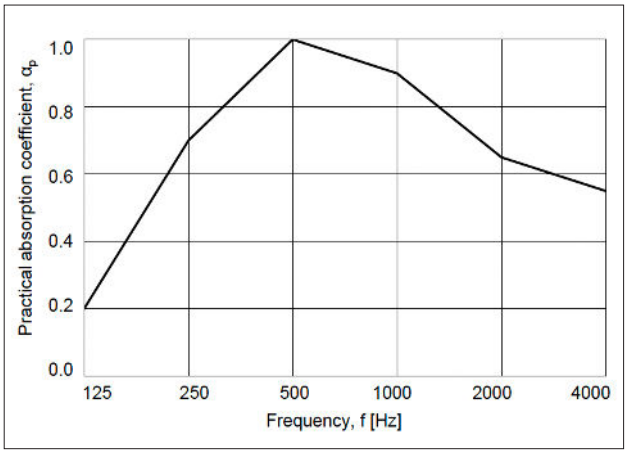


Figure 1: Sound test mounted with 45mm (1.77inch) insulation behind the panel. Closed frame around the edge.

Practical absorption coefficient, weighted absorption coefficient, and absorption class in accordance with EN ISO 11654:1997:

a_w = 0.70(MH)*
Absorption class: C

*It is strongly recommended to use this single-number rating in combination with the complete curve of the sound absorption coefficient.

Sound test with mounting directly on the wall

Test area:	10.8 m^2	116 ft^2
Room volume:	215 m^3	7592.65 ft^3
Room surface area:	305 m^2	3282.99 ft^2

Frequency f [Hz]	a_p
125	0.00
250	0.10
500	0.30
1000	0.75
2000	0.90
4000	0.55

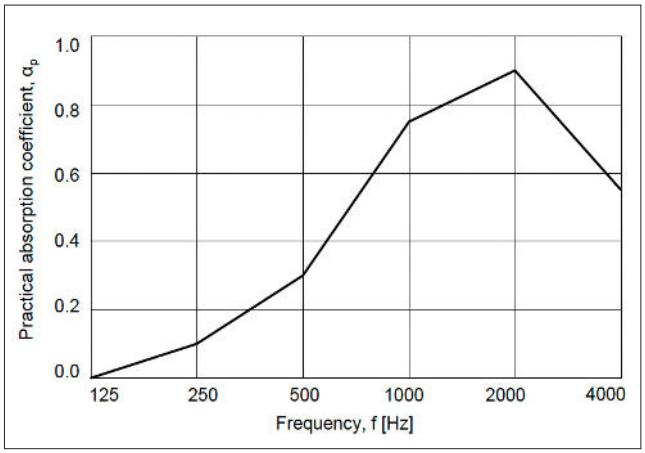


Figure 2: The sound test shows mounting directly on the wall.

Practical absorption coefficient, weighted absorption coefficient, and absorption class in accordance with EN ISO 11654:1997::

a_w = 0.35(MH)*
Absorption class: D

*It is strongly recommended to use this single-number rating in combination with the complete curve of the sound absorption coefficient.

Fire test

Fire test with 40 mm lamellae according to EN 13823:2020

A safe panel for your project

Fog & Venø's fire-approved panel is classified as an EN 13823 / B-s1,d0 product. The graph below shows that the product fully meets the requirements - and has potential classification as an A2/B-s1,d0

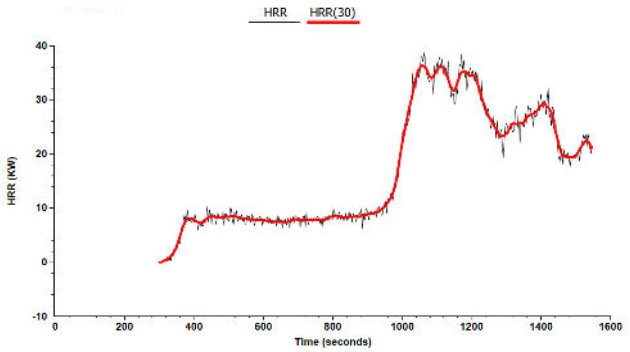
Figure 1: Test assembly at SBI – Vertical and horizontal orientation of slats.

Figure 2: Samples (No. 8784-1-3 and 8784-1-7) after the test.

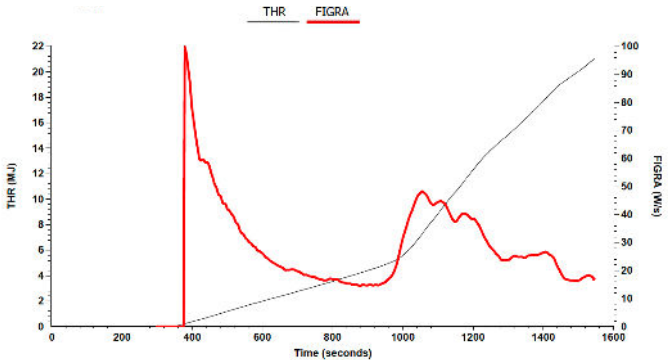
Potential classification

Class	A2/B
Smoke production	s1
Flaming droplets/particles	d0

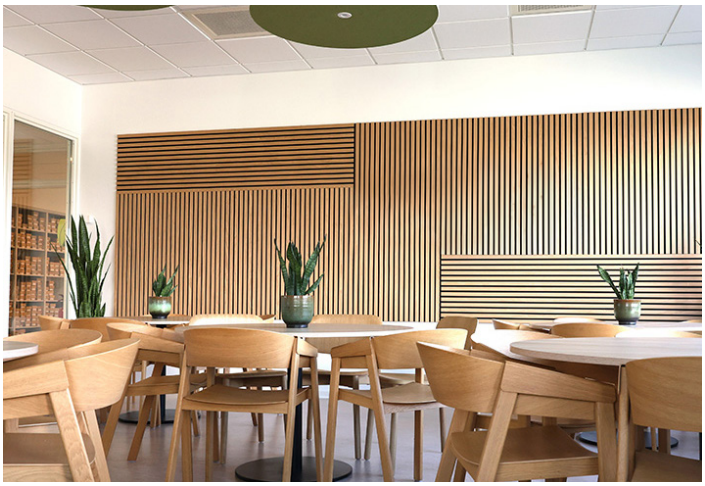
HRR and HRR(30) graph



THR and FIGRA graph



Case
Health Centre in Vejle



Fire-rated acoustic panels for the Health Centre in Vejle

The new Health Centre in Vejle required a solution to improve the acoustics in their dental clinic while meeting strict fire safety regulations. In collaboration with a local architect, Fog & Venø's fire-retardant acoustic panels, FR-Filt, were chosen.

The installation was carried out by master carpenter Rune Linderoth, who praised the panels for their ease of installation. The result was a significant improvement in acoustics and a fire-safe environment that provides peace of mind for both patients and staff.

"As a master carpenter, I can highly recommend the fire-retardant acoustic panels. They are incredibly easy to install and very user-friendly."

– Rune Linderoth, Linderoth Entreprise ApS

This solution demonstrates Fog & Venø's ability to deliver products that combine aesthetics,


ANNA KARENINA

FOG & VENØ

Fog & Venø is a leading Danish manufacturer of acoustic and decorative panels, with and without acoustic properties. These products are designed and manufactured with a focus on Danish craftsmanship and a constant pursuit of high quality. The panels are suitable for installation on both walls and ceilings.

Fog & Venø has a strategic partnership with the world's leading suppliers of materials such as wood veneer, linoleum, foil, and laminate, ensuring that all Fog & Venø products maintain a high standard and a wide range of options. This means there is always an echo in the room, and it is here that our acoustic panels make a big difference.

Our Danish-made acoustic panels break the sound and absorb the sound wave, so it fades out when it hits the panels. This means that the sound wave is eliminated and the reverberation time is reduced, which will improve the indoor climate and the sense of well-being in the room, whether we are talking about private, commercial, or public buildings.

Contact information

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