

Use of CEWOOD panels for maximum sound absorption

By combining just three natural materials – wood, cement, and water – wood wool panels offer a unique solution for noise reduction in buildings. The most effective absorption can be achieved by adding a layer of mineral wool behind CEWOOD panels. They can be mounted with screws or used in suspended ceiling constructions.

In such multi-layer applications, CEWOOD panels will significantly lower sound reverberation time, increase acoustic comfort and improve speaker clarity in public spaces, such as educational institutions, offices, and conference halls. Production machinery often creates a lot of noise. Workers in technical use premises will benefit highly from reduced sound pressure in the high frequency range.

Natural and simple

For the creators of modern interiors CEWOOD wood wool panels provide a variety of benefits:

1. A comfortable acoustic environment can be achieved by using materials with a high level of sustainability and natural feel. The wide range of colours, chip widths and surface finishes inspire with all the possibilities. Furthermore, it is possible to achieve the necessary acoustic effect with less coverage thus leading to higher flexibility in ceiling and wall finishing.
2. The above-mentioned simple constructions are easy to design. These straightforward solutions provide more peace of mind also in the construction phase as installers likely have built them before.
3. Finally, these effective constructions made of widely available, tried and tested materials will be financially more appealing than specialised acoustic panels. Furthermore, the capacity for maximum effect with a lower coverage leads to additional economy.

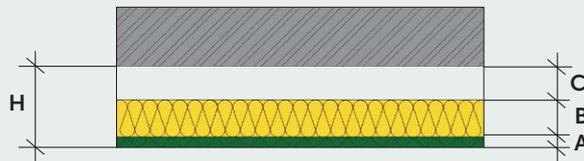
Certified constructions

More than 20 different constructions with CEWOOD panels have proved their effectiveness in reverberation chamber tests and reached the highest absorption class A. It means that these constructions absorb 90-100% of sound waves on the surface.

In continuation, information is provided about these A class certified constructions so you can choose what fits your design vision, preferable ceiling height, technical requirements, and available budget.

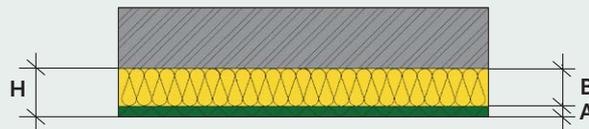
In cases when solutions of a lower absorption class are sufficient, please look for construction descriptions and data in the Downloads section of cewood.com.



Mounting with screws onto the ceiling structure with an air gap


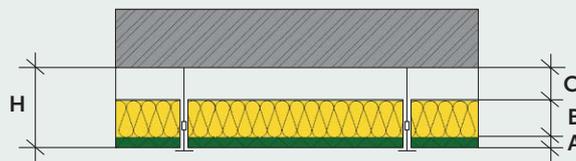
Description	α_w	Class	Height, H (mm)	CEWOOD panel, A (mm)	Mineral wool B (mm)	Air gap, C (mm)
CEWOOD B1 Panel 25 mm, mineral wool (~70 kg/m ³) 40 mm, air gap 135 mm	1,00	A	200	25	40	135
CEWOOD B1 Panel 25 mm, mineral wool (~30 kg/m ³) 50 mm, air gap 125 mm	1,00	A	200	25	50	125
CEWOOD B1 Panel 25 mm, mineral wool (~70 kg/m ³) 40 mm, air gap 85 mm	1,00	A	150	25	40	85
CEWOOD A2 Panel 25 mm, mineral wool (~70 kg/m ³) 40 mm, air gap 85 mm	1,00	A	150	25	40	85
CEWOOD B1 Panel 25 mm, mineral wool (~70 kg/m ³) 20 mm, air gap 180 mm	0,95	A	225	25	20	180
CEWOOD B1 Panel 25 mm, mineral wool (~30 kg/m ³) 100 mm, air gap 75 mm	0,95	A	200	25	100	75
CEWOOD A2 Panel 25 mm, mineral wool (~30 kg/m ³) 100 mm, air gap 75 mm	0,95	A	200	25	100	75
CEWOOD B1 Panel 25 mm, mineral wool (~70 kg/m ³) 30 mm, air gap 70 mm	0,90	A	125	25	30	70
CEWOOD A2 Panel 25 mm, mineral wool (~70 kg/m ³) 30 mm, air gap 70 mm	0,90	A	125	25	30	70
CEWOOD B1 Panel 35 mm, mineral wool (~70 kg/m ³) 30 mm, air gap 70 mm	0,90	A	135	35	30	70

Mounting with screws onto the ceiling structure without an air gap



Description	α_w	Class	Height, H (mm)	CEWOOD panel, A (mm)	Mineral wool B (mm)	Air gap, C (mm)
CEWOOD B1 Panel 25 mm, mineral wool (~30 kg/m ³) 50 mm	1,00	A	75	25	50	0
CEWOOD B1 Panel 25 mm, mineral wool (~30 kg/m ³) 100 mm	1,00	A	125	25	100	0
CEWOOD B1 Panel 25 mm, mineral wool (~70 kg/m ³) 40 mm	0,95	A	65	25	40	0
CEWOOD A2 Panel 25 mm, mineral wool (~70 kg/m ³) 40 mm	0,95	A	65	25	40	0
CEWOOD A2 Panel 25 mm, mineral wool (~30 kg/m ³) 100 mm	0,95	A	125	25	100	0
CEWOOD B1 Panel 25 mm, mineral wool (~70 kg/m ³) 50 mm	0,90	A	75	25	50	0
CEWOOD B1 Panel 35 mm, mineral wool (~70 kg/m ³) 40 mm	0,95	A	75	35	40	0

Mounting in suspended ceiling structures with an air gap



Description	α_w	Class	Height, H (mm)	CEWOOD panel, A (mm)	Mineral wool B (mm)	Air gap, C (mm)
CEWOOD B1 Panel 25 mm, mineral wool (~30 kg/m ³) 50 mm, air gap 125 mm	1,00	A	200	25	50	125
CEWOOD B1 Panel 25 mm, mineral wool (~70 kg/m ³) 40 mm, air gap 85 mm	1,00	A	150	25	40	85
CEWOOD A2 Panel 25 mm, mineral wool (~70 kg/m ³) 40 mm, air gap 85 mm	1,00	A	150	25	40	85
CEWOOD B1 Panel 15 mm, mineral wool (~70 kg/m ³) 20 mm, air gap 180 mm	0,90	A	215	15	20	180
CEWOOD B1 Panel 15 mm, mineral wool (~70 kg/m ³) 50 mm, air gap 150 mm	0,90	A	215	15	50	150
CEWOOD B1 Panel 25 mm, mineral wool (~70 kg/m ³) 20 mm, air gap 180 mm	0,90	A	225	25	20	180
CEWOOD B1 Panel 35 mm, mineral wool (~70 kg/m ³) 20 mm, air gap 180 mm	0,90	A	235	35	20	180