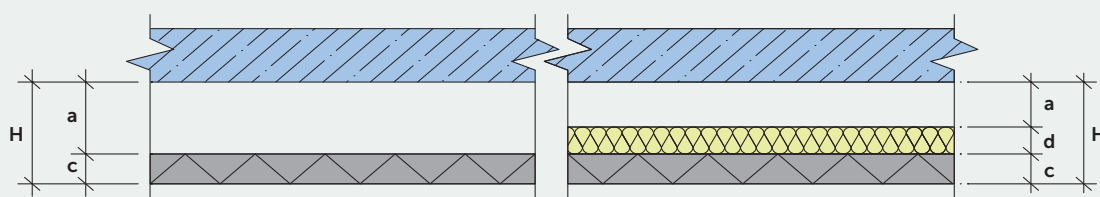


ACOUSTICS

CEWOOD Panels are a natural, environmentally- and human-friendly material made in Latvia from top-quality wood wool using white cement as the binding agent and adding water. CEWOOD Panels are convenient and durable and help maintain the pleasant microclimate typical to wood, in addition to ensuring sound insulation and absorption of unwanted noises.

Practical sound absorption coefficient α_p in octave band pursuant to EN ISO 354,
Expanded sound absorption coefficient α_w and sound absorption class pursuant to LVS EN ISO 11654:1997



H – total height of structure; **a** – air gap; **d** – mineral wool; **c** – CEWOOD panel

Sound absorption classes characterize a material's ability to absorb sound and make it easier to compare the acoustic effectiveness of different materials:

Class A – Highest sound absorption ($\alpha_w \geq 0.90$), suitable for spaces with high acoustic requirements (e.g., concert halls, studios).

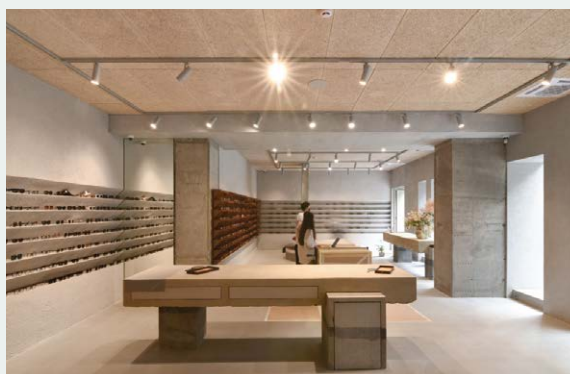
Class B – Good sound absorption, suitable for offices, schools, and other public spaces.

Class C – Moderate sound absorption, suitable for areas with medium acoustic requirements.

Class D – Lower sound absorption, often chosen for other properties such as design or structural considerations.

An exceptionally effective type of application is sound-absorbing structures in large-sized premises, to reduce the sound reverberation time in the room and to improve working conditions. CEWOOD Panels can be used to make plate-type screens with marked sound-absorbing qualities to reduce the capacity of noise emitted by equipment in the high tone frequency range. An even more effective acoustic solution is creating three-dimensional finishing elements, such as pyramids which produce much higher absorption coefficient values, owing to sound diffraction around edges.

Panels with 3 mm wide shavings and higher density ensure better sound absorption in lower frequencies. Whereas the 1 mm and 1.5 mm wood shaving panels have better absorption properties in the higher frequency range. The optimum sound absorption solution can be achieved by combining CEWOOD Panels with a layer of mineral wool heat insulation.



ACOUSTICS

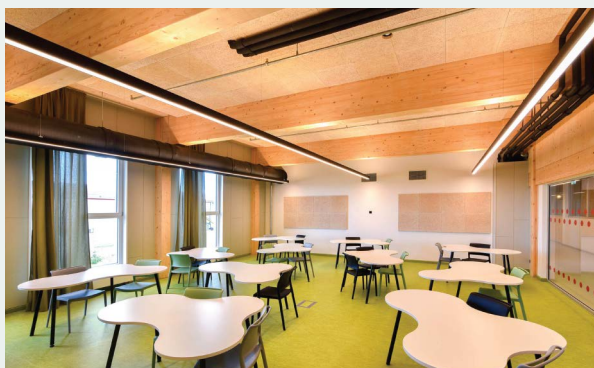
CEWOOD Panels are widely used in both interiors of public and residential buildings. They are highly suitable for suspended ceiling constructions and wall decoration. Owing to their natural composition and outstanding features, they are widely used in premises with increased acoustic load, where sound reverberation (reflection) time and noise absorption play an important role.

Offices, public buildings and private residences



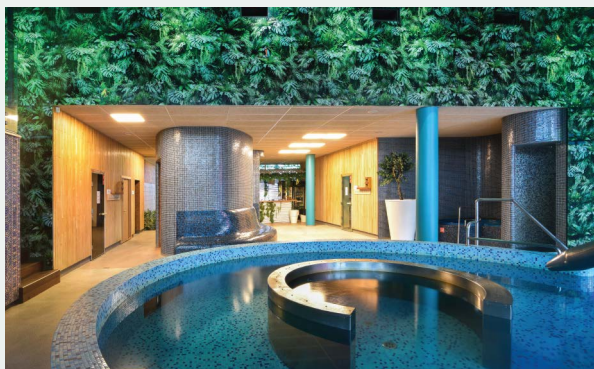
In open-plan offices, meeting rooms and public spaces, CEWOOD Panels provide sound absorption, reduce noise and improve the working environment.

Schools, kindergartens, universities



Thanks to the acoustic properties, CEWOOD Panels are widely used in educational institutions. They improve the acoustic comfort of the premises and provide a favourable microclimate.

Sport centres, swimming pools, spa



Acoustic panels not only provide sound absorption, but also absorb excess moisture and do not change their properties in rooms with elevated humidity.

ACOUSTICS

Culture centres, theaters, cinemas



In the public entertainment rooms, the acoustic panels finishing provides a significant increase in the acoustic microclimate to meet the highest industry standards.

Record studios, TV and radio stations



CEWOOD Panels offer professional-grade soundproofing to effectively absorb noise and minimize sound reflection.

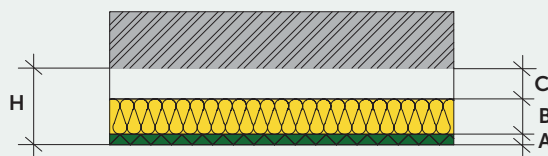
Industrial premises, warehouses, parking lots



CEWOOD Panels are a great noise reduction solution for production facilities and parking lots, as they absorb sound thus allowing to reduce the noise volume and increasing the noise comfort level.

ACOUSTICS

Mounting with screws onto the ceiling structure with an air gap



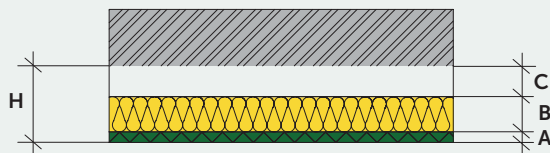
Panel thickness (mm)	Description	α_w	Class	Height, H (mm)	CEWOOD panel, A (mm)	Mineral wool, B (mm)	Air gap, C (mm)	Frequency					
								125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
25	CEWOOD Panel 25 mm, mineral wool 40 mm, air gap 135 mm	● 1,00	A	200	25	40	135	0,55	0,95	1,00	1,00	0,95	1,00
	CEWOOD Panel 25 mm, mineral wool 50 mm, air gap 125 mm	● 1,00	A	200	25	50	125	0,50	1,00	1,00	1,00	0,95	1,00
	CEWOOD Panel 25 mm, mineral wool 40 mm, air gap 85 mm	● 1,00	A	150	25	40	85	0,45	0,95	1,00	1,00	0,95	1,00
	CEWOOD Panel 25 mm, A2, mineral wool 40 mm, air gap 85 mm	● 1,00	A	150	25	40	85	0,45	0,95	1,00	1,00	0,90	1,00
	CEWOOD Panel 25 mm, mineral wool 20 mm, air gap 180 mm	● 0,95	A	225	25	20	180	0,60	0,95	0,95	0,95	0,95	0,90
	CEWOOD Panel 25 mm, mineral wool 100 mm, air gap 75 mm	● 0,95	A	200	25	100	75	0,70	1,00	1,00	0,95	0,90	1,00
	CEWOOD Panel 25 mm, A2, mineral wool 100 mm, air gap 75 mm	● 0,95	A	200	25	100	75	0,70	1,00	1,00	0,90	0,90	1,00
	CEWOOD Panel 25 mm, mineral wool 30 mm, air gap 70 mm	● 0,90	A	125	25	30	70	0,35	0,70	1,00	0,90	0,85	0,90
	CEWOOD Panel 25 mm, A2, mineral wool 30 mm, air gap 70 mm	● 0,90	A	125	25	30	70	0,35	0,70	1,00	0,90	0,80	0,90

A2 – reaction to fire class according to EN 13501-1

 ● – mineral wool ~70 kg/m³ ● – mineral wool ~30 kg/m³

ACOUSTICS

Mounting with screws onto the ceiling structure with an air gap



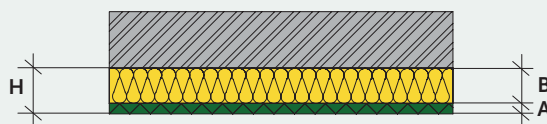
Panel thickness (mm)	Description	α_w	Class	Height, H (mm)	CEWOOD panel, A (mm)	Mineral wool, B (mm)	Air gap, C (mm)	Frequency					
								125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
25	CEWOOD Panel 25 mm, mineral wool 50 mm, air gap 10 mm ●	0,75	C	85	25	50	10	0,40	0,75	0,75	0,70	0,70	0,70
	CEWOOD Panel 25 mm, mineral wool 20 mm, air gap 5 mm ●	0,75	C	50	25	20	5	0,15	0,45	0,90	1,00	0,90	0,95
	CEWOOD Panel 25 mm, mineral wool 0 mm, air gap 100 mm	0,60	C	125	25	0	100	0,15	0,35	0,65	0,60	0,65	0,80
	CEWOOD Panel 25 mm, A2, mineral wool 0 mm, air gap 100 mm	0,60	C	125	25	0	100	0,15	0,35	0,65	0,60	0,65	0,80
	CEWOOD Panel 25 mm, mineral wool 0 mm, air gap 60 mm	0,55	D	85	25	0	60	0,10	0,30	0,55	0,60	0,50	0,60
	CEWOOD Panel 25 mm, mineral wool 0 mm, air gap 50 mm	0,55	D	75	25	0	50	0,10	0,25	0,60	0,70	0,55	0,80
	CEWOOD Panel 25 mm, mineral wool 0 mm, air gap 25 mm	0,50	D	50	25	0	25	0,10	0,25	0,50	0,75	0,65	0,85
35	CEWOOD Panel 35 mm, mineral wool 20 mm, air gap 100 mm ●	1,00	A	155	35	20	100	0,35	0,80	1,00	1,00	0,90	1,00
	CEWOOD Panel 35 mm, mineral wool 30 mm, air gap 70 mm ●	0,90	A	135	35	30	70	0,35	0,70	1,00	0,90	0,85	0,90
	CEWOOD Panel 35 mm, mineral wool 0 mm, air gap 100 mm	0,65	C	135	35	0	100	0,15	0,35	0,70	0,70	0,70	0,85

A2 – reaction to fire class according to EN 13501-1

 ● – mineral wool ~70 kg/m³ ● – mineral wool ~30 kg/m³

ACOUSTICS

Mounting with screws onto the ceiling structure without an air gap



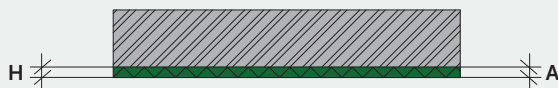
Panel thickness (mm)	Description	α_w	Class	Height, H (mm)	CEWOOD panel, A (mm)	Mineral wool, B (mm)	Air gap, C (mm)	Frequency					
								125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
25	CEWOOD Panel 25 mm, mineral wool 50 mm ●	1,00	A	75	25	50	0	0,30	0,85	1,00	0,95	0,95	1,00
	CEWOOD Panel 25 mm, mineral wool 100 mm ●	1,00	A	125	25	100	0	0,60	1,00	1,00	1,00	0,90	1,00
	CEWOOD Panel 25 mm, mineral wool 40 mm ●	1,00	A	65	25	40	0	0,25	0,75	1,00	1,00	0,95	1,00
	CEWOOD Panel 25 mm, A2, mineral wool 40 mm ●	0,95	A	65	25	40	0	0,25	0,80	1,00	0,95	0,85	1,00
	CEWOOD Panel 25 mm, A2, mineral wool 100 mm ●	0,95	A	125	25	100	0	0,65	1,00	1,00	0,95	0,90	1,00
	CEWOOD Panel 25 mm, mineral wool 30 mm ●	0,85	B	55	25	30	0	0,25	0,55	1,00	0,95	0,85	0,85
	CEWOOD Panel 25 mm, mineral wool 20 mm ●	0,75	C	45	25	20	0	0,15	0,45	0,95	1,00	0,90	0,95
35	CEWOOD Panel 35 mm, mineral wool 40 mm ●	1,00	A	75	35	40	0	0,25	0,80	1,00	1,00	0,95	1,00
	CEWOOD Panel 25 mm, A2, mineral wool 40 mm ●	1,00	A	75	35	40	0	0,25	0,80	1,00	1,00	0,90	1,00

A2 – reaction to fire class according to EN 13501-1

 ● – mineral wool ~70 kg/m³ ● – mineral wool ~30 kg/m³

ACOUSTICS

Direct mounting

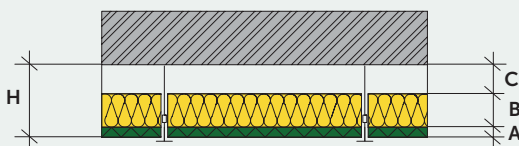


Panel thickness (mm)	Description	α_w	Class	Height, H (mm)	CEWOOD panel, A (mm)	Mineral wool, B (mm)	Air gap, C (mm)	Frequency					
								125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
15	CEWOOD Panel 15 mm	0,30	D	15	15	0	0	0,05	0,10	0,20	0,35	0,60	0,85
	CEWOOD Panel 15 mm, A2	0,30	D	15	15	0	0	0,05	0,10	0,20	0,35	0,65	0,90
25	CEWOOD Panel 25 mm	0,40	D	25	25	0	0	0,10	0,15	0,35	0,70	0,90	0,75
	CEWOOD Panel 25 mm, A2	0,40	D	25	25	0	0	0,05	0,20	0,35	0,65	0,75	0,75
35	CEWOOD Panel 35 mm	0,50	D	35	35	0	0	0,15	0,25	0,45	0,80	0,90	0,85

A2 – reaction to fire class according to EN 13501-1

ACOUSTICS

Mounting in suspended ceiling structures with an air gap



Panel thickness (mm)	Description	α_w	Class	Height, H (mm)	CEWOOD panel, A (mm)	Mineral wool, B (mm)	Air gap, C (mm)	Frequency					
								125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
15	CEWOOD Panel 15 mm, mineral wool 20 mm, air gap 180 mm	● 0,90	A	215	15	20	180	0,35	0,70	0,90	0,90	0,85	0,90
	CEWOOD Panel 15 mm, mineral wool 50 mm, air gap 150 mm	● 0,90	A	215	15	50	150	0,50	0,80	0,95	0,90	0,85	0,90
	CEWOOD Panel 15 mm, mineral wool 0 mm, air gap 200 mm	0,60	C	215	15	0	200	0,20	0,45	0,55	0,55	0,65	0,80
25	CEWOOD Panel 25 mm, mineral wool 40 mm, air gap 135 mm	● 1,00	A	200	25	40	135	0,55	0,95	1,00	1,00	0,95	1,00
	CEWOOD Panel 25 mm, mineral wool 50 mm, air gap 125 mm	● 1,00	A	200	25	50	125	0,50	1,00	1,00	1,00	0,95	1,00
	CEWOOD Panel 25 mm, mineral wool 40 mm, air gap 85 mm	● 1,00	A	150	25	40	85	0,45	0,95	1,00	1,00	0,95	1,00
	CEWOOD Panel 25 mm, A2, mineral wool 40 mm, air gap 85 mm	● 1,00	A	150	25	40	85	0,45	0,95	1,00	1,00	0,90	1,00
	CEWOOD Panel 25 mm, mineral wool 100 mm, air gap 75 mm	● 0,95	A	200	25	100	75	0,70	1,00	1,00	0,95	0,90	1,00
	CEWOOD Panel 25 mm, A2, mineral wool 100 mm, air gap 75 mm	● 0,95	A	200	25	100	75	0,70	1,00	1,00	0,90	0,90	1,00

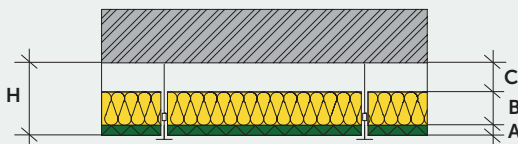
A2 – reaction to fire class according to EN 13501-1

 ● – mineral wool ~70 kg/m³

 ● – mineral wool ~30 kg/m³

ACOUSTICS

Mounting in suspended ceiling structures with an air gap



Panel thickness (mm)	Description	α_w	Class	Height, H (mm)	CEWOOD panel, A (mm)	Mineral wool, B (mm)	Air gap, C (mm)	Frequency					
								125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
25	CEWOOD Panel 25 mm, mineral wool 20 mm, air gap 180 mm	● 0,90	A	225	25	20	180	0,35	0,70	0,90	0,90	0,85	0,90
	CEWOOD Panel 25 mm, mineral wool 50 mm, air gap 150 mm	● 0,90	A	225	25	50	150	0,55	0,80	0,95	0,90	0,85	0,95
	CEWOOD Panel 25 mm, mineral wool 0 mm, air gap 200 mm	0,60	C	225	25	0	200	0,25	0,45	0,55	0,55	0,70	0,85
35	CEWOOD Panel 35 mm, mineral wool 50 mm, air gap 180 mm	● 0,90	A	235	35	20	180	0,45	0,70	0,90	0,85	0,85	1,00
	CEWOOD Panel 35 mm, mineral wool 50 mm, air gap 150 mm	● 0,90	A	235	35	50	150	0,55	0,85	0,95	0,85	0,85	0,95
	CEWOOD Panel 35 mm, mineral wool 0 mm, air gap 200 mm	0,65	C	235	35	0	200	0,30	0,50	0,60	0,60	0,75	0,90

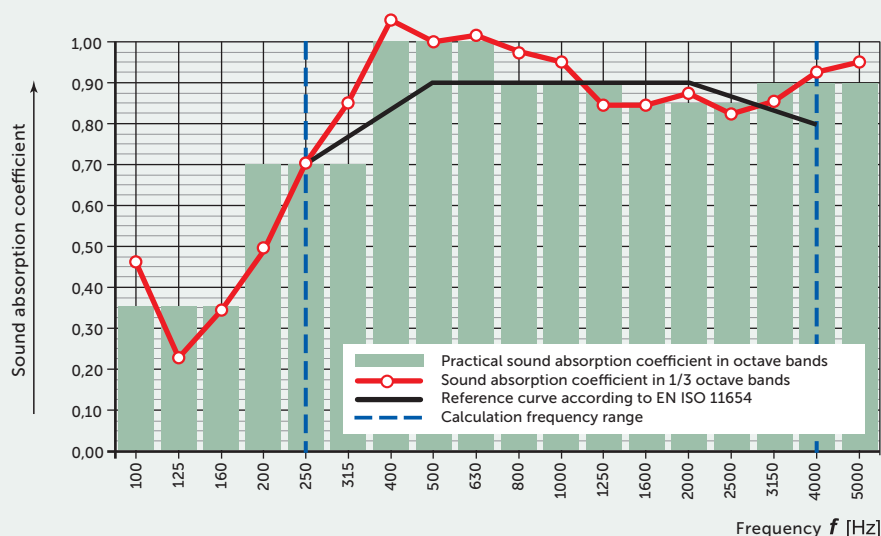
● – mineral wool ~70 kg/m³ ● – mineral wool ~30 kg/m³

ACOUSTICS

Frequency f, Hz	α_s 1/3 Oct.	α_p 1 Oct.
50	-	-
63	-	-
80	-	-
100	0,46	-
125	0,22	0,35
160	0,34	-
200	0,49	-
250	0,70	0,70
315	0,85	-
400	1,03	-
500	0,99	1,00
630	1,01	-
800	0,97	-
1000	0,95	0,90
1250	0,85	-
1600	0,85	-
2000	0,87	0,85
2500	0,82	-
3150	0,84	-
4000	0,93	0,90
5000	0,95	-
6300	-	-
8000	-	-
10000	-	-

CEWOOD Panels fixed on wood laths or metal profiles

25 mm CEWOOD Panel, on wood laths, 30 mm mineral wool, 70 mm air



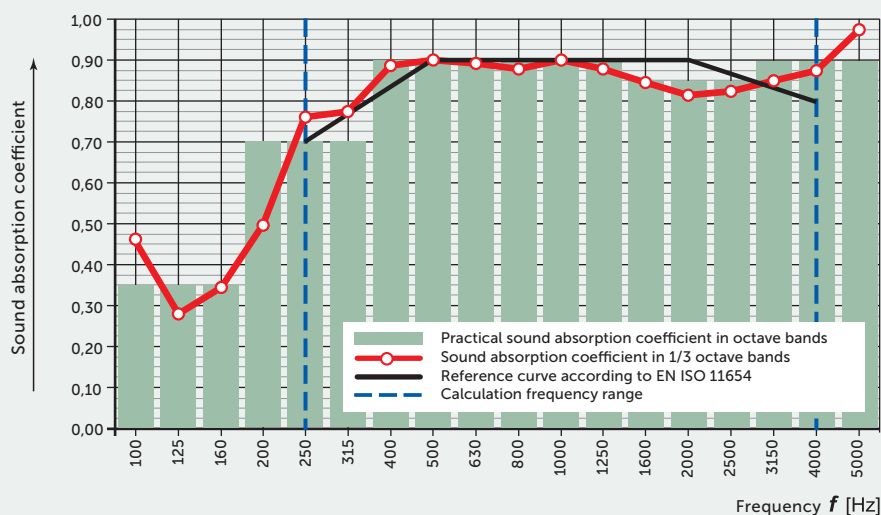
Practical sound absorption coefficient according to LVS EN ISO 11654, α_w : **0,90**

Sound absorption class according to LVS EN ISO 11654: **A**

Frequency f, Hz	α_s 1/3 Oct.	α_p 1 Oct.
50	-	-
63	-	-
80	-	-
100	0,46	-
125	0,28	0,35
160	0,34	-
200	0,50	-
250	0,76	0,70
315	0,78	-
400	0,89	-
500	0,90	0,90
630	0,89	-
800	0,88	-
1000	0,90	0,90
1250	0,88	-
1600	0,85	-
2000	0,82	0,85
2500	0,82	-
3150	0,85	-
4000	0,87	0,90
5000	0,97	-
6300	-	-
8000	-	-
10000	-	-

CEWOOD Panels in suspended ceiling systems (T-24 profiles)

25 mm CEWOOD Panel, on T-24 profile, 20 mm mineral wool, 180 mm air



Practical sound absorption coefficient according to LVS EN ISO 11654, α_w : **0,90**

Sound absorption class according to LVS EN ISO 11654: **A**