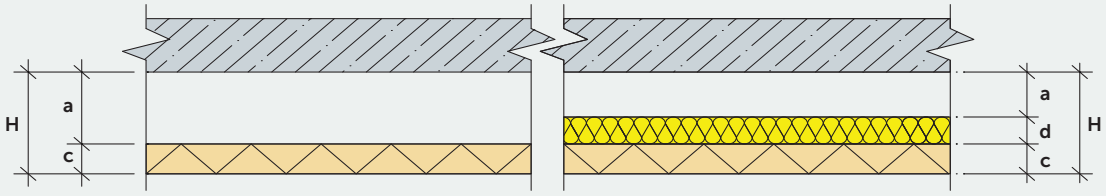
ACOUSTICS

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 of 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



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.

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ACOUSTICS

CEWOOD Panels are widely used in the interiors of both 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

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

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ACOUSTICS

Culture centres, theaters, cinemas

In public entertainment spaces, CEWOOD Panels significantly improve the acoustic microclimate, meeting 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.

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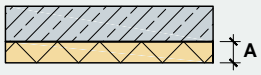
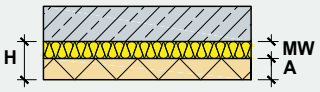
ACOUSTICS

The acoustic performance values correspond to the specified installation configurations.

- 15 mm panels for T-type profile ceilings only
- (MW) - Mineral wool density 70–90 kg/m^3

Direct fixing without air gap

Installation Cross-Section	Panel thickness A (mm)	Description	Absorption Class	Absorption α_w	Frequency 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Direct fixing without mineral wool										
	**15**	CEWOOD Panel 15 mm	**D**	**0.30**	0.05	0.10	0.20	0.35	0.60	0.85
	25	CEWOOD Panel 25 mm	**D**	**0.40**	0.05	0.20	0.35	0.55	0.90	0.75
	35	CEWOOD Panel 35 mm	**D**	**0.50**	0.15	0.25	0.45	0.80	0.90	0.85
	25	CEWOOD Barcode 25 mm	**D**	**0.35**	0.05	0.15	0.25	0.45	0.80	0.75
	35	CEWOOD Barcode 35 mm	**D**	**0.45**	0.05	0.20	0.40	0.75	0.80	0.95
Direct fixing with mineral wool										
	**25**	CEWOOD Panel 25 mm, mineral wool 40 mm, H - 65 mm	**A**	**1.00**	0.25	0.75	1.00	1.00	0.90	1.00
		CEWOOD Panel 25 mm, mineral wool 50 mm, H - 75 mm	**A**	**1.00**	0.30	0.85	1.00	0.95	0.95	1.00
		CEWOOD Panel 25 mm, mineral wool 100 mm, H - 125 mm	**A**	**1.00**	0.60	1.00	1.00	1.00	0.90	1.00
		CEWOOD Panel 25 mm, mineral wool 20 mm, H - 45 mm	**C**	**0.75**	0.15	0.45	0.95	1.00	0.90	0.95
		CEWOOD Panel 25 mm, mineral wool 30 mm, H - 55 mm	**C**	**0.75**	0.20	0.55	1.00	1.00	0.70	1.00
		CEWOOD Panel 25 mm, mineral wool 10 mm, H - 35 mm	**C**	**0.60**	0.10	0.30	0.60	0.95	0.85	0.85
	35	CEWOOD Panel 35 mm, mineral wool 40 mm, H - 75 mm	**A**	**1.00**	0.25	0.80	1.00	1.00	0.95	1.00
		CEWOOD Panel 35 mm, mineral wool 20 mm, H - 55 mm"	**C**	**0.75**	0.15	0.45	1.00	1.00	0.85	1.00
	25	CEWOOD Barcode 25 mm, mineral wool 40 mm, H - 65mm	**A**	**0.95**	0.25	0.75	1.00	1.00	0.90	1.00
		CEWOOD Barcode 25 mm, mineral wool 20 mm, H - 45 mm	**C**	**0.65**	0.10	0.35	0.90	1.00	0.85	1.00
	35	CEWOOD Barcode 35 mm, mineral wool 40 mm, H - 75 mm	**A**	**0.95**	0.25	0.75	1.00	0.95	0.90	1.00
		CEWOOD Barcode 35 mm, mineral wool 20 mm, H - 55 mm	**C**	**0.75**	0.15	0.45	1.00	1.00	0.80	1.00

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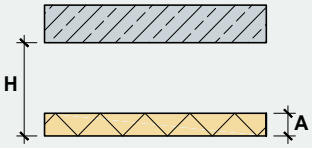
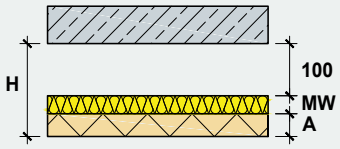
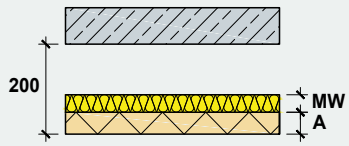
ACOUSTICS

Installation with an air gap

Installation Cross-Section	Panel thickness A (mm)	Description	Absorption		Frequency					
			Class	α_w	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Installation without mineral wool										
	**15**	CEWOOD Panel 15 mm, air gap - 100mm, H - 115 mm	**D**	**0.50**	0.10	0.25	0.55	0.50	0.45	0.60
		CEWOOD Panel 15 mm, air gap - 185 mm, H - 200 mm	**D**	**0.50**	0.20	0.35	0.50	0.40	0.50	0.60
	25	CEWOOD Panel 25 mm, air gap - 175 mm, H - 200 mm	**C**	**0.60**	0.20	0.45	0.60	0.50	0.60	0.80
		CEWOOD Panel 25 mm, air gap - 200 mm, H - 225 mm	**C**	**0.60**	0.25	0.45	0.60	0.50	0.60	0.80
		CEWOOD Panel 25 mm, air gap - 50 mm, H - 75 mm	**D**	**0.55**	0.10	0.25	0.60	0.70	0.55	0.80
		CEWOOD Panel 25 mm, air gap - 100 mm, H - 125 mm	**D**	**0.55**	0.15	0.35	0.65	0.55	0.55	0.80
		CEWOOD Panel 25 mm, air gap - 25 mm, H - 50 mm	**D**	**0.50**	0.10	0.25	0.50	0.75	0.65	0.85
	35	CEWOOD Panel 35 mm, air gap - 200 mm, H - 235 mm	**C**	**0.65**	0.30	0.50	0.60	0.60	0.75	0.90
		CEWOOD Panel 35 mm, air gap - 165 mm, H - 200 mm	**D**	**0.55**	0.25	0.45	0.55	0.45	0.65	0.80
	50	CEWOOD Panel 50 mm, air gap - 100 mm, H - 150 mm	**C**	**0.70**	0.20	0.55	0.75	0.60	0.80	0.90
		CEWOOD Panel 50 mm, air gap - 150 mm, H - 200 mm	**C**	**0.70**	0.25	0.60	0.70	0.60	0.80	0.90
	25	CEWOOD Barcode 25 mm, air gap - 100 mm, H - 125 mm	**D**	**0.55**	0.15	0.30	0.65	0.55	0.55	0.75
		CEWOOD Barcode 25 mm, air gap - 175 mm, H - 200 mm	**D**	**0.55**	0.20	0.45	0.60	0.45	0.55	0.80
	35	CEWOOD Barcode 35 mm, air gap - 100 mm, H - 135 mm	**C**	**0.65**	0.15	0.45	0.75	0.55	0.65	0.95
		CEWOOD Barcode 35 mm, air gap - 165 mm, H - 200 mm	**C**	**0.60**	0.25	0.55	0.65	0.50	0.70	0.90

ACOUSTICS

Installation with an air gap

Installation Cross-Section	Panel thickness A (mm)	Description	Absorption		Frequency					
			Class	α_w	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Installation with mineral wool – air gap 100 mm										
	**15**	CEWOOD Panel 15 mm, mineral wool 20 mm, H - 135 mm	**A**	**0.95**	0.35	0.70	1.00	1.00	0.90	0.80
		CEWOOD Panel 15 mm, mineral wool 40 mm, H - 155 mm	**A**	**0.95**	0.45	0.85	1.00	1.00	0.90	0.85
	25	CEWOOD Panel 25 mm, mineral wool 20 mm, H - 145 mm	**A**	**1.00**	0.30	0.75	1.00	1.00	0.95	1.00
		CEWOOD Panel 25 mm, mineral wool 30 mm, H - 155 mm	**B**	**0.85**	0.30	0.75	1.00	0.85	0.80	1.00
		CEWOOD Panel 25 mm, mineral wool 10 mm, H - 135 mm	**C**	**0.75**	0.20	0.50	0.90	0.85	0.75	0.90
	35	CEWOOD Panel 35 mm, mineral wool 20 mm, H - 155 mm	**A**	**1.00**	0.35	0.80	1.00	1.00	0.90	1.00
	25	CEWOOD Barcode 25 mm, mineral wool 20 mm, H - 145 mm	**A**	**1.00**	0.30	0.75	1.00	1.00	0.95	0.95
	35	CEWOOD Barcode 35 mm, mineral wool 20 mm, H - 155 mm	**A**	**0.95**	0.35	0.80	1.00	0.95	0.90	1.00
Installation with mineral wool – total construction height 200 mm										
	**15**	CEWOOD Panel 15 mm, mineral wool 20 mm, air gap - 165 mm	**A**	**0.95**	0.45	0.80	1.00	1.00	0.95	0.80
		CEWOOD Panel 15 mm, mineral wool 40 mm, H - 145 mm	**A**	**0.95**	0.50	0.90	1.00	1.00	0.90	0.85
	25	CEWOOD Panel 25 mm, mineral wool 20 mm, air gap - 155 mm	**A**	**1.00**	0.45	0.80	1.00	1.00	0.95	1.00
		CEWOOD Panel 25 mm, mineral wool 40 mm, air gap - 135 mm	**A**	**1.00**	0.55	0.95	1.00	1.00	0.95	1.00
		CEWOOD Panel 25 mm, mineral wool 50 mm, air gap - 125 mm	**A**	**1.00**	0.50	1.00	1.00	1.00	0.95	1.00
		CEWOOD Panel 25 mm, mineral wool 100 mm, air gap - 75 mm	**A**	**0.95**	0.70	1.00	1.00	0.95	0.90	1.00
		CEWOOD Panel 25 mm, mineral wool 30 mm, air gap - 145 mm	**A**	**0.90**	0.35	0.80	1.00	0.90	0.85	1.00
		CEWOOD Panel 25 mm, mineral wool 30 mm, air gap - 145 mm	**C**	**0.75**	0.25	0.60	0.85	0.70	0.75	0.90

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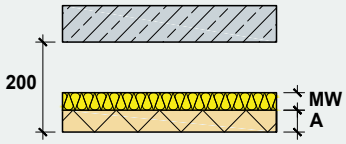
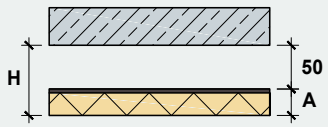
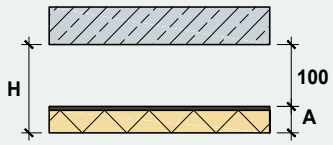
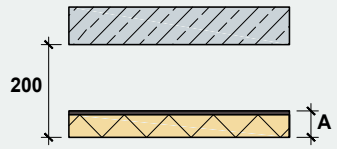
ACOUSTICS

Installation with an air gap

Installation Cross-Section	Panel thickness A (mm)	Description	Absorption Class	Absorption α_w	Frequency 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Installation with mineral wool – total construction height 200 mm										
	**35**	CEWOOD Panel 35 mm, mineral wool 20 mm, air gap - 145 mm	**A**	**1.00**	0.40	0.80	1.00	1.00	0.90	1.00
	25	CEWOOD Barcode 25 mm, mineral wool 20 mm, air gap - 155 mm	**A**	**1.00**	0.40	0.80	1.00	1.00	0.95	0.95
	35	CEWOOD Barcode 35 mm, mineral wool 20 mm, air gap - 145 mm	**A**	**1.00**	0.40	0.80	1.00	0.95	0.90	1.00
Installation with FLEECE – air gap 50 mm										
	**15**	CEWOOD Panel 15 mm, FLEECE, H - 65 mm	**D**	**0.55**	0.10	0.25	0.65	0.85	0.85	0.90
	25	CEWOOD Panel 25 mm, FLEECE, H - 75 mm	**C**	**0.70**	0.15	0.40	0.85	1.00	0.90	0.90
	35	CEWOOD Panel 35 mm, FLEECE, H - 85 mm	**C**	**0.75**	0.20	0.45	0.85	1.00	1.00	0.95
Installation with FLEECE – air gap 100 mm										
	**15**	CEWOOD Panel 15 mm, FLEECE, H - 115 mm	**B**	**0.80**	0.25	0.50	0.85	0.85	0.80	0.85
	25	CEWOOD Panel 25 mm, FLEECE, H - 125 mm	**A**	**0.90**	0.25	0.60	0.95	0.95	0.90	0.90
	35	CEWOOD Panel 35 mm, FLEECE, H - 135 mm	**A**	**0.95**	0.35	0.65	0.95	1.00	0.95	0.90
Installation with FLEECE - total construction height 200 mm										
	**15**	CEWOOD Panel 15 mm, FLEECE, air gap - 185 mm	**B**	**0.80**	0.40	0.70	0.90	0.75	0.80	0.85
	25	CEWOOD Panel 25 mm, FLEECE, air gap - 175 mm	**A**	**0.90**	0.35	0.75	0.95	0.85	0.90	0.95
	35	CEWOOD Panel 35 mm, FLEECE, air gap - 165 mm	**A**	**0.95**	0.45	0.75	0.95	0.95	0.95	0.90

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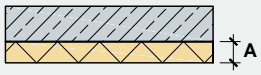
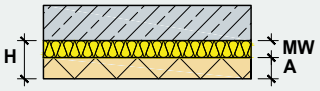
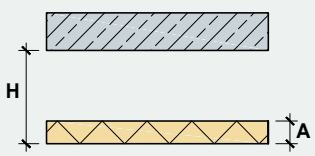
ACOUSTICS

The following acoustic data applies to the **A2 panels** - version with an improved fire safety class.

Direct fixing without air gap

Installation Cross-Section	Panel thickness A (mm)	Description	Absorption Class	Absorption α_w	Frequency 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Direct fixing without mineral wool										
	**15**	CEWOOD A2 Panel 15 mm	**D**	**0.30**	0.05	0.10	0.20	0.35	0.65	0.90
	25	CEWOOD Panel 25 mm	**D**	**0.35**	0.05	0.15	0.30	0.55	0.90	0.75
	35	CEWOOD Panel 35 mm	**D**	**0.40**	0.05	0.20	0.35	0.65	0.75	0.75
	25	CEWOOD Barcode 25 mm	**D**	**0.35**	0.10	0.15	0.30	0.55	0.90	0.80
Direct fixing with mineral wool										
	**25**	CEWOOD Panel 25 mm, mineral wool 40 mm, H - 65 mm	**A**	**0.95**	0.25	0.80	1.00	0.95	0.85	1.00
		CEWOOD Panel 25 mm, mineral wool 100 mm, H - 125 mm	**A**	**0.95**	0.65	1.00	1.00	0.95	0.90	1.00
		CEWOOD Panel 25 mm, mineral wool 20 mm, H - 45 mm	**C**	**0.65**	0.10	0.35	0.85	1.00	0.85	0.95
	35	CEWOOD Panel 35 mm, mineral wool 40 mm, H - 75 mm	**A**	**1.00**	0.35	0.80	1.00	1.00	0.90	1.00
		CEWOOD Panel 35 mm, mineral wool 20 mm, H - 55 mm	**C**	**0.70**	0.15	0.40	0.95	1.00	0.85	1.00

Installation with an air gap

Installation Cross-Section	Panel thickness A (mm)	Description	Absorption Class	Absorption α_w	Frequency 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Installation without mineral wool										
	**15**	CEWOOD Panel 15 mm, air gap - 100 mm, H - 115 mm	**D**	**0.45**	0.10	0.20	0.50	0.45	0.40	0.55
		CEWOOD Panel 15 mm, air gap - 185 mm, H - 200 mm	**D**	**0.45**	0.20	0.30	0.45	0.35	0.45	0.55
	25	CEWOOD Panel 25 mm, air gap - 100 mm, H - 125 mm	**C**	**0.60**	0.15	0.35	0.65	0.60	0.65	0.80

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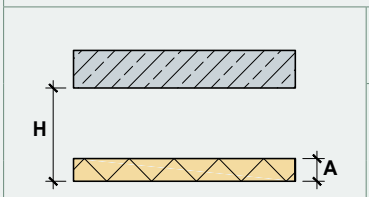
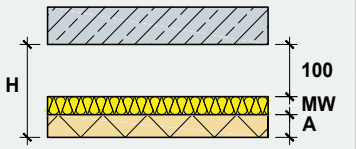
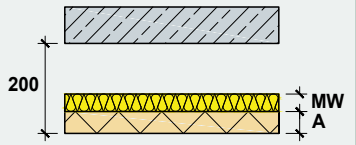
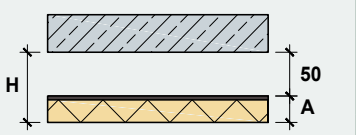
ACOUSTICS

Installation with an air gap

Installation Cross-Section	Panel thickness A (mm)	Description	Absorption Class	Absorption α_w	Frequency 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Installation without mineral wool										
	**25**	CEWOOD Panel 25 mm, air gap - 175 mm, H - 200 mm	**D**	**0.50**	0.20	0.40	0.50	0.40	0.50	0.70
	35	CEWOOD Panel 35 mm, air gap - 100 mm, H - 135 mm	**D**	**0.55**	0.20	0.40	0.50	0.40	0.50	0.70
		CEWOOD Panel 35 mm, air gap - 100 mm, H - 135 mm	**D**	**0.55**	0.20	0.50	0.60	0.45	0.65	0.85
Installation with mineral wool - air gap 100mm										
	**15**	CEWOOD Panel 15 mm, mineral wool 40 mm, H - 155 mm	**A**	**1.00**	0.35	0.80	1.00	1.00	0.90	1.00
		CEWOOD Panel 15 mm, mineral wool 20 mm, H - 135 mm	**A**	**0.95**	0.35	0.70	1.00	1.00	0.95	0.80
	25	CEWOOD Panel 25 mm, mineral wool 20 mm, H - 145 mm	**A**	**0.95**	0.35	0.75	1.00	1.00	0.90	0.95
	35	CEWOOD Panel 35 mm, mineral wool 20 mm, H - 155 mm	**A**	**1.00**	0.35	0.80	1.00	1.00	0.90	1.00
Installation with mineral wool - total construction height 200 mm										
	**15**	CEWOOD Panel 15 mm, mineral wool 20 mm, air gap - 165 mm	**A**	**0.95**	0.45	0.80	1.00	1.00	0.95	0.80
		CEWOOD Panel 15 mm, mineral wool 40 mm, air gap - 145 mm	**A**	**0.95**	0.50	0.85	1.00	1.00	0.90	0.85
	25	CEWOOD Panel 25 mm, mineral wool 20 mm, air gap - 155 mm	**A**	**1.00**	0.45	0.80	1.00	1.00	0.90	0.95
		CEWOOD Panel 25 mm, mineral wool 100 mm, air gap - 75 mm	**A**	**0.95**	0.70	1.00	1.00	0.90	0.90	1.00
	35	CEWOOD Panel 35 mm, mineral wool 20 mm, air gap - 145 mm	**A**	**1.00**	0.40	0.80	1.00	1.00	0.90	1.00
Installation with FLEECE - air gap 50 mm										
	**15**	CEWOOD Panel 15 mm, FLEECE, H - 65 mm	**C**	**0.60**	0.10	0.30	0.65	0.85	0.85	0.85
	25	CEWOOD Panel 25 mm, FLEECE, H - 75 mm	**C**	**0.65**	0.15	0.35	0.75	0.95	0.90	0.90
	35	CEWOOD Panel 35 mm, FLEECE, H - 85 mm	**C**	**0.70**	0.20	0.40	0.85	1.00	0.95	0.95

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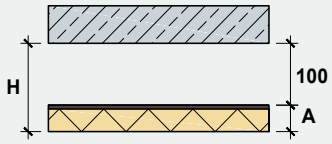
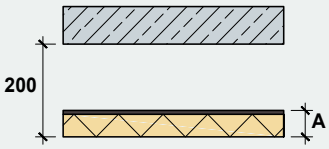
ACOUSTICS

Installation with an air gap

Installation Cross-Section	Panel thickness A (mm)	Description	Absorption Class	Absorption α_w	Frequency 125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Installation with FLEECE - air gap 100 mm										
	**15**	CEWOOD Panel 15 mm, FLEECE, H - 115 mm	**B**	**0.80**	0.25	0.50	0.85	0.90	0.80	0.85
	25	CEWOOD Panel 25 mm, FLEECE, H - 125 mm	**B**	**0.85**	0.30	0.55	0.90	0.95	0.90	0.85
	35	CEWOOD Panel 35 mm, FLEECE, H - 135 mm	**A**	**0.95**	0.35	0.65	1.00	1.00	0.95	0.95
Installation with FLEECE - total construction height 200 mm										
	**15**	CEWOOD Panel 15 mm, FLEECE, air gap - 185 mm	**B**	**0.80**	0.45	0.70	0.90	0.75	0.80	0.90
	25	CEWOOD Panel 25 mm, FLEECE, air gap - 175 mm	**A**	**0.90**	0.45	0.70	0.95	0.85	0.90	0.85
	35	CEWOOD Panel 35 mm, FLEECE, air gap - 165 mm	**A**	**0.95**	0.45	0.75	1.00	0.95	0.95	0.95

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