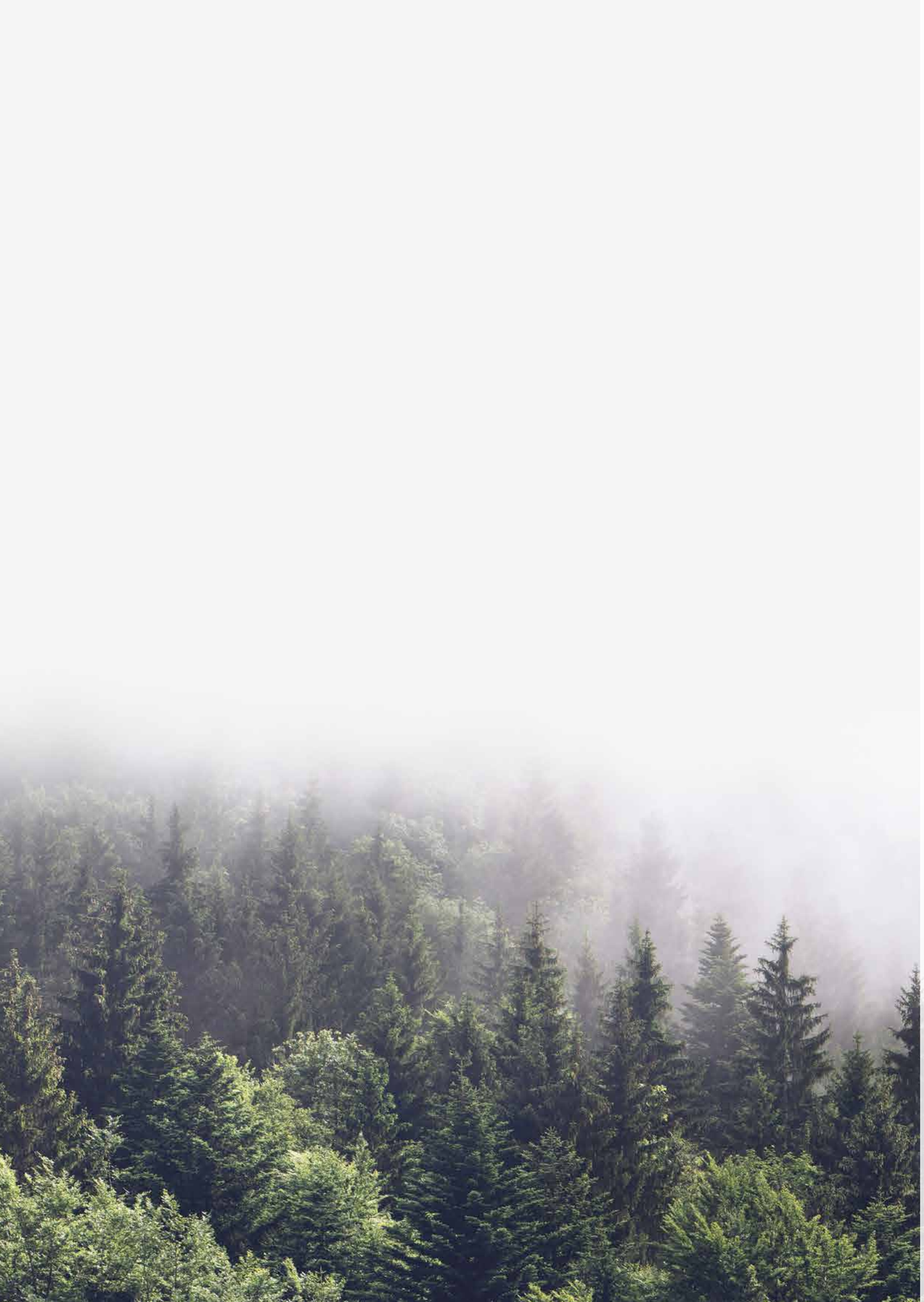
CEWOOD

WOOD WOOL PANELS



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About us

CEWOOD has successfully adopted 50-year-old Latvian traditions of manufacturing wood wool panels. CEWOOD Ltd is a 100% Latvian company, currently employing around 100 employees. Company operates a state-of-art factory in a rural area in north-east of Latvia, located close to main ingredient – "green gold" – wood.

The company was established in 2015. CEWOOD is the only manufacturer of panels of wood wool in the Baltic States, and it is among the leading companies of the field in the world. In CEWOOD factory high quality equipment produced by Eltomation B.V. is used. The quality standards set forth by the company have allowed to successfully expand the sales market of CEWOOD to include many countries.

In 2019 CEWOOD opened office and warehouse in capital city of Latvia – Riga. Office is built as show room, to present versatility, solutions of wood wool panels.

Initially, wood wool panels were used to insulate buildings and build structures, whereas today, apart from these applications, acoustic and design panels are also made to be used widely in various interior design solutions across the globe. CEWOOD products are exported to Europe, Asia and the USA.

The company is continuously working on optimization of production processes, launching new products, educating markets. Together with field experts — architects, interior designers, builders and object developers — preconditions are established with the aim to take full advantage of unique applications of CEWOOD panels.

CEWOOD produces a natural, environmentally friendly material that is harmless to human health and made of top-quality wood wool. Cement mixed with water is used as the binding agent. Depending on the application, CEWOOD panels are divided into 3 groups: acoustic, design and construction panels.

CEWOOD acknowledges the importance of sustainability and protection of natural resources in today's world. CEWOOD has received NaturePlus certificate. In all production facilities, we use renewable energy, as evidenced by Powered by Green™ certificate.

CEWOOD
WOOD WOOL PANELS

Benefits

CEWOOD produces top quality standard and also custom-made wood wool products with excellent acoustic and thermal properties.

All building and finishing materials are produced with special care for nature and are rooted in more than 50 years' experience of wood wool production. Due to products competitiveness, fireproof, durability and ecological futures, it is perfect for a wide range of insulation, construction and design purposes.

ECOLOGY – the material is produced in a nature-friendly way
HEALTH – provides a human-friendly, favourable environment
AESTHETICS – a wide range of colours, textures and finishes
ACOUSTICS – excellent sound insulating and absorbing properties
DURABILITY – does not become deformed, does not lose its properties over time
FIRE SAFETY – high fire safety indicators (A2, B-s1, d0)
HEAT-INSULATION – excellent insulation properties

Wood Wool | Portland Cement | Water

100% Natural ingredients

CEWOOD
Acoustic panels

CEWOOD Acoustic panels

CEWOOD Acoustic panels are a durable and nature friendly material made of top quality wood wool and cement.

CEWOOD panels are made of wood wool, using grey or white cement as the binder.

By combining fire resistance with good acoustic and heat insulation properties, the product offers the widest variety of design solutions.

Acoustic panels are widely used in public and residential building interior design, it is eco-friendly and harmless for health. The panels are very suitable for suspended ceiling constructions and wall finishing. Owing to its natural composition and outstanding properties, they are widely used in premises with increased acoustic load, where sound insulation and noise absorption are of essence. The panels do not change their properties in premises with an increased level of humidity, they absorb excess humidity and ensure pleasant microclimate, typical in premises with wood decoration.

Panels with thickness of 15, 25, 35 and 50 mm made of 0.5, 1.5 and 1 mm thick wood wool are used for ceiling decoration.

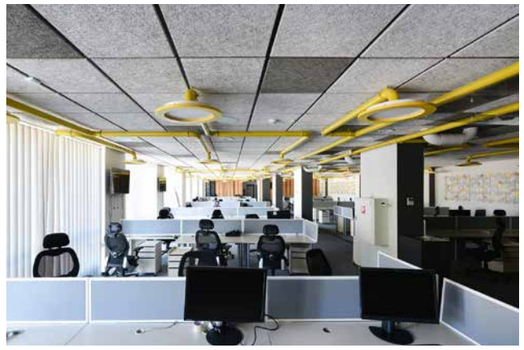
The quality of all CEWOOD materials corresponds to LVS EN 13168 requirements.

CEWOOD panels application

Application samples

Acoustic panels are widely used in both interiors of public and residential buildings. They are very suitable for hanging ceiling constructions and wall decoration. Due to their natural composition and outstanding features, they are widely used in premises with increased acoustic load, where sound insulation and noise absorption play an important role.

Offices, public spaces



In open type offices, meeting rooms and public spaces CEWOOD panels provide sound absorption, noise reduction and improve the working environment.

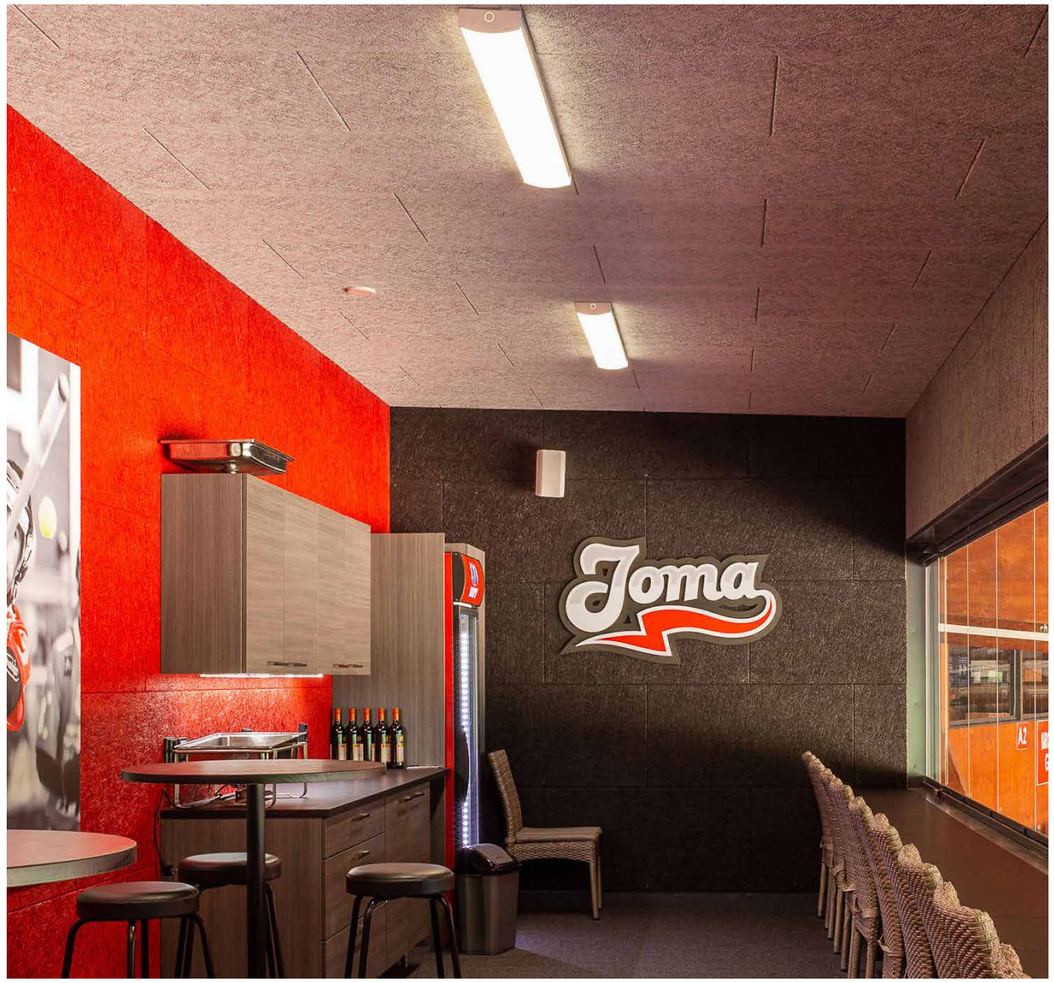
Schools, kindergartens, universities

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

Sport facilities, swimming pools, spa

The acoustic panels not only provide sound insulation but also absorb excess moisture in the rooms and do not change their properties in high humidity rooms.

Music and sports halls, theaters, cinemas



In the public entertainment rooms, the acoustic panels finishing provides significant level regulation of sound penetration, according to the highest industry standards.

Recording studios, TV and radio stations

Acoustic panels provide professional soundproofing for maximum noise isolation and reduce the reflection of the sound.

Industrial premises, warehouses, parking lots

The acoustic panels are great noise reduction solution for production premises and parking lots, because it allows to reduce the noise and increases the noise comfort level.

Technical specifications

Technical specifications

CEWOOD Acoustic panels are a durable and nature friendly material made of top quality wood wool and cement. By combining fire resistance with good acoustic and heat insulation properties, the product offers the widest variety of design solutions.

Application

Acoustic panels are widely used in public and residential building interior design, it is eco-friendly and harmless for health. Owing to its natural composition and outstanding properties they are widely used in premises with increased acoustic load, where sound insulation and noise absorption are of essence:

- Offices, public spaces and private homes
- Schools, kindergartens, universities
- Sport facilities, swimming pools, spa
- Music halls, theaters, cinemas
- Recording studios, TV and radio stations
- Industrial premises, warehouses, parking lots etc.

CEWOOD Acoustic panels

CEWOOD Acoustic panels - 0,5 mm wood wool

Thickness	mm	25
Size (standard panel)	mm	2400x600; 1200x600; 600x600
Size (for suspended ceilings)	mm	1195x595; 595x595
Dimensional tolerance (EN 13168)		L4; W2; T2; S2; P2
Weight	kg/m^2	10,5
Density	kg/m^3	420

Thermal resistance (Ro)	m^2·K/W	0,35
Thermal conductivity (λD)	W/m·K	0,066
Bend (EN 12089)	kPa	≥ 1300
Compression (EN 826)	kPa	≥ 300
Chloride content (EN 13168)	%	≤ 0,06 class Cl3
Reaction to fire (EN 13501-1:2007)		B-s1, d0

CEWOOD Acoustic panels - 1,0 mm wood wool

Thickness	mm	15	25	35	50
Size (standard panel)	mm	2400x600; 1200x600; 600x600			
Size (for suspended ceilings)	mm	1195x595; 595x595			
Dimensional tolerance (EN 13168)		L4; W2; T2; S2; P2			
Weight	kg/m^2	7,0	10,5	14,5	19,5
Density	kg/m^3	470	420	410	390

Thermal resistance (Ro)	m^2·K/W	0,20	0,35	0,50	0,75
Thermal conductivity (λD)	W/m·K	0,066			
Bend (EN 12089)	kPa	≥ 1700	≥ 1300	≥ 1000	≥ 700
Compression (EN 826)	kPa	≥ 300	≥ 300	≥ 200	≥ 200
Chloride content (EN 13168)	%	≤ 0,06 class Cl3			
Reaction to fire (EN 13501-1:2007)		B-s1, d0			

CEWOOD Acoustic panels - 1,5 mm wood wool

Thickness	mm	15	25	35	50
Size (standard panel)	mm	2400x600; 1200x600; 600x600			
Size (for suspended ceilings)	mm	1195x595; 595x595			
Dimensional tolerance (EN 13168)		L4; W2; T2; S2; P2			
Weight	kg/m^2	7,0	10,5	13,5	18,5
Density	kg/m^3	470	420	380	370

Thermal resistance (Ro)	m^2·K/W	0,20	0,35	0,50	0,75
Thermal conductivity (λD)	W/m·K	0,066			
Bend (EN 12089)	kPa	≥ 1700	≥ 1300	≥ 1000	≥ 700
Compression (EN 826)	kPa	≥ 300	≥ 300	≥ 200	≥ 200
Chloride content (EN 13168)	%	≤ 0,06 class Cl3			
Reaction to fire (EN 13501-1:2007)		B-s1, d0			

CEWOOD Acoustic panels - 3,0 mm wood wool (produced upon request)

Thickness	mm	25	35	50
Size (standard panel)	mm	2400x600; 1200x600; 600x600		
Size (for suspended ceilings)	mm	1195x595; 595x595		
Dimensional tolerance (EN 13168)		L4; W2; T2; S2; P2		
Weight	kg/m^2	10,5	14,5	19,5
Density	kg/m^3	420	410	390

Thermal resistance (Ro)	m^2·K/W	0,35	0,50	0,75
Thermal conductivity (λD)	W/m·K	0,066		
Bend (EN 12089)	kPa	≥ 1300	≥ 1000	≥ 700
Compression (EN 826)	kPa	≥ 300	≥ 200	≥ 200
Chloride content (EN 13168)	%	≤ 0,06 class Cl3		
Reaction to fire (EN 13501-1:2007)		B-s1, d0		

CEWOOD A2 Acoustic panels - 1,0 mm wood wool

Novelty!

Thickness	mm	25
Size (standard panel)	mm	2400x600; 1200x600; 600x600
Size (for suspended ceilings)	mm	1195x595; 595x595
Dimensional tolerance (EN 13168)		L4; W2; T2; S2; P2
Weight	kg/m^2	14,5
Density	kg/m^3	580

Thermal resistance (Ro)	m^2·K/W	0,35
Thermal conductivity (λD)	W/m·K	0,066
Bend (EN 12089)	kPa	≥ 1300
Compression (EN 826)	kPa	≥ 300
Chloride content (EN 13168)	%	≤ 0,06 class Cl3
Reaction to fire (EN 13501-1:2007)		A2-s1, d0

CEWOOD Plus panels - 25 mm Panels + 30 mm Mineral Wool

Novelty!

CEWOOD code		CW-PLUS-W25S	CW-A2-PLUS-W25S
Thickness	mm	25	25
Thickness panel + mineral wool	mm	55	55
Wood wool width	mm	1,0	1,0
Length	mm	1200	1200
Width	mm	600	600
Weight	kg/m^2	11,50	14,5
Wood wool Density	kg/m^3	460	580
Thermal resistance (Ro)	m^2·K/W	0,35	0,30
Thermal conductivity (λD)	W/m·K	0,066	0,074
Minimum level of tensile strength:			
• Bend (EN 12089)	kPa	≥ 1300	≥ 1300
• Compression (EN 826)	kPa	≥ 300	≥ 500
Chloride content (EN 13168)	%	≥ 0,15	≤ 0,06 class Cl3
Reaction to fire (EN 13501-1:2007)		B-s1, d0	A2-s1, d0

Mineral wool

Thickness	mm	30
Length	mm	1200
Width	mm	600
Thermal resistance (Ro)	m^2·K/W	0,85
Thermal conductivity (λD)	W/m·K	0,035
Reaction to fire (EN 13501-1:2007)		A2-s1, d0

Product codes

CW-W25F-P0-1200x600-RAL1245

- Cewood prefix
- Cement type
  - W — White Portland cement
  - G — Grey Portland cement
- Panel thickness, mm
  - 15 mm
  - 25 mm
  - 35 mm
  - 50 mm
- Wood wool thickness
  - E — Extreme Fine, 0.5 mm
  - S — Super Fine, 1.0 mm
  - F — Fine, 1.5 mm
  - R — Regular, 3.0 mm
- Paint code
  - N — natural
  - NP — natural painted
  - WP — white painted
  - GP — grey painted
  - BP — black painted
  - RAL standard
- Dimensions Lenght x Width, mm
  - 600 mm x 600 mm
  - 1200 mm x 600 mm
  - 2400 mm x 600 mm
- Cewood profile code
  P0 — No profile
  P5 — 5 mm chamfer
  P11 — 11 mm chamfer

CEWOOD panels colour variations

CEWOOD wood wool panels are available:
- non painted,
- in standard colours,
- in any other colour upon client's request according to RAL or NCS paint catalogues.

The standard colour range for CEWOOD wood wool panels include: non painted – natural, natural painted, white painted, grey painted, black painted.

Natural

Natural painted

White painted

Grey painted

Black painted

Colour from RAL or NCS paint catalogues

Colour tone warning for nonpainted CEWOOD panels

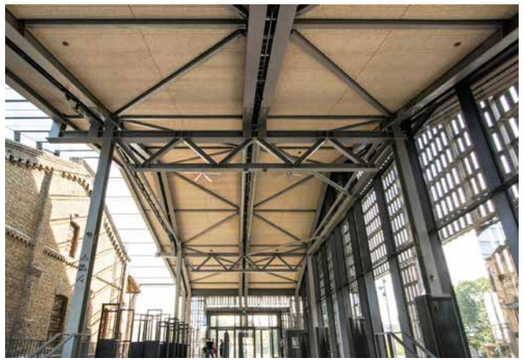
CEWOOD Acoustic panels and Design tiles are manufactured using top-quality timber from Latvian forests. Wood is a natural material, and its colour tone can differ due to various factors unrelated to quality.

The main factors affecting the colour tone are:
- Wood tonality;
- Tree growing conditions;
- Harvesting period;
- Drying rate;
- Water content in wood;
- Panel manufacturing process;
- Hardening, drying of panels.

When selecting unpainted panels, bear in mind that the tone can differ, and it will allow enjoying natural colour variations of wood, however, if homogeneous tone is important in design, then CEWOOD recommends choosing panels painted in natural colour. The quality of CEWOOD panels in either case is excellent and meets all requirements.

Sample with CEWOOD nonpainted Acoustic panels

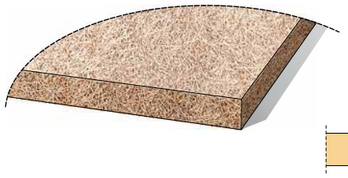
Sample with CEWOOD natural painted Acoustic panels

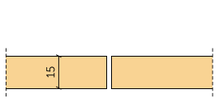


Profiles

Profile specifications

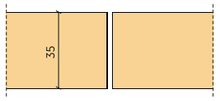
P0 - Panel without chamfer





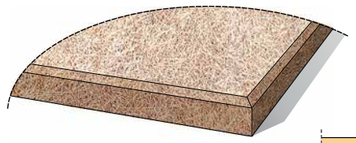
Panel thickness: **15 mm**

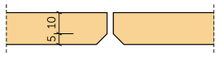
Panel thickness: **25 mm**



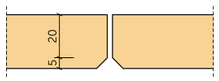
Panel thickness: **35 mm**

P5 - Panel with 5 mm chamfer

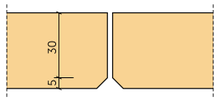




Panel thickness: **15 mm**

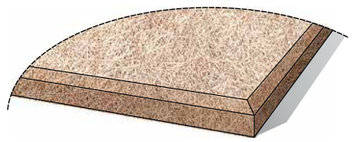


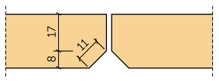
Panel thickness: **25 mm**



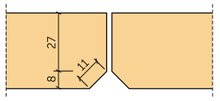
Panel thickness: **35 mm**

P11 - Panel with 11 mm chamfer



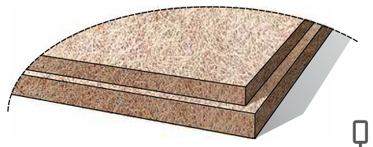


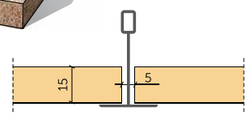
Panel thickness: **25 mm**



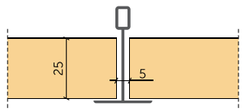
Panel thickness: **35 mm**

P0-T24 - Standart T24 ceiling profile

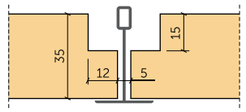




Panel thickness: **15 mm**

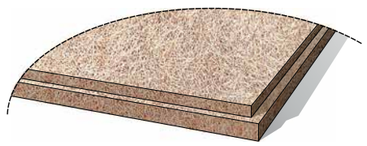


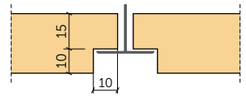
Panel thickness: **25 mm**



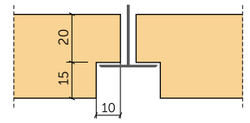
Panel thickness: **35 mm**

P0G-T24 - Immersed T24 ceiling profile



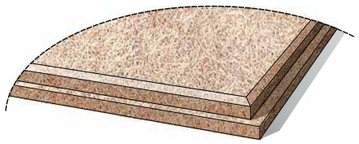


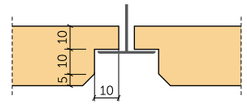
Panel thickness: **25 mm**



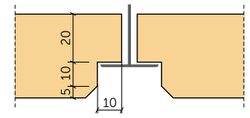
Panel thickness: **35 mm**

P5G-T24 - Immersed T24 ceiling profile with 5 mm chamfer



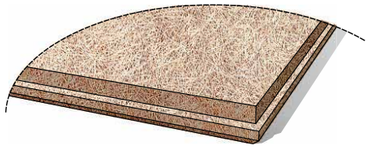


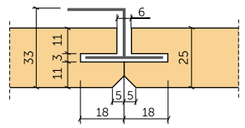
Panel thickness: **25 mm**



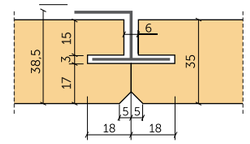
Panel thickness: **35 mm**

P5H - Hidden suspended ceiling profile with 5 mm chamfer



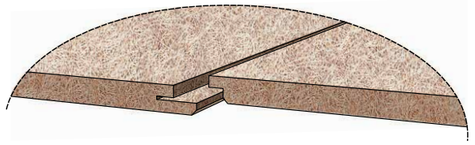


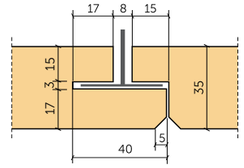
Panel thickness: **25 mm**



Panel thickness: **35 mm**

P5S - Hidden suspended ceiling profile with overhang and 5 mm chamfer*

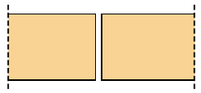
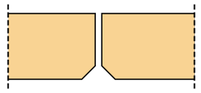
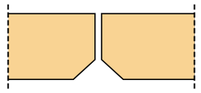
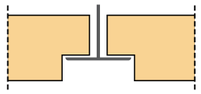
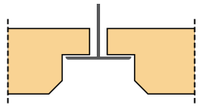
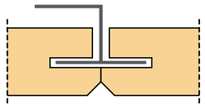
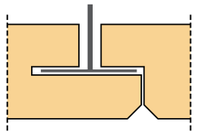


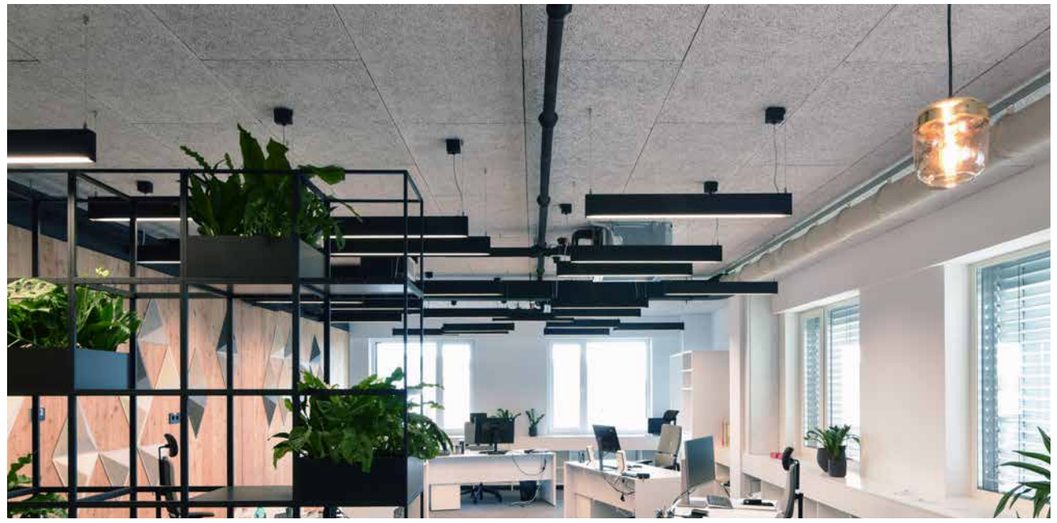


Panel thickness: **35 mm**

*Only for size 600x600 mm

Profiles of panel edges

Code	Profile	Panel thickness, mm			Frame structure		
		15	25	35	Wood laths	CD profiles	T profiles
PO		+	+	+	+	+	+
P5		+	+	+	+	+	
P11			+	+	+	+	
POG			+	+			+
P5G			+	+			+
P5H			+	+			+
P5S				+			+



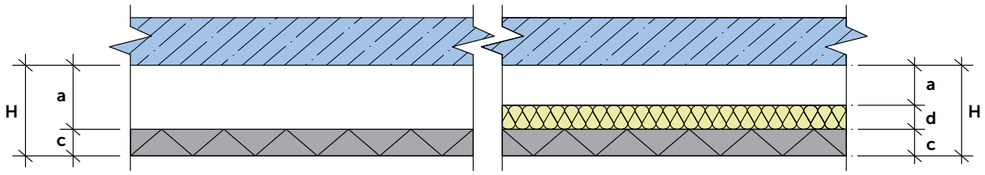
Acoustics

Acoustics

CEWOOD Acoustic panels are a natural product made in Latvia. Panels are friendly both to environment and human health, they're made from premium quality wood wool by adding white cement and water.

CEWOOD panels are comfortable and resistant. They help to maintain a pleasant microclimate characteristic to wood in the facilities. Main feature of panels is sound absorption.

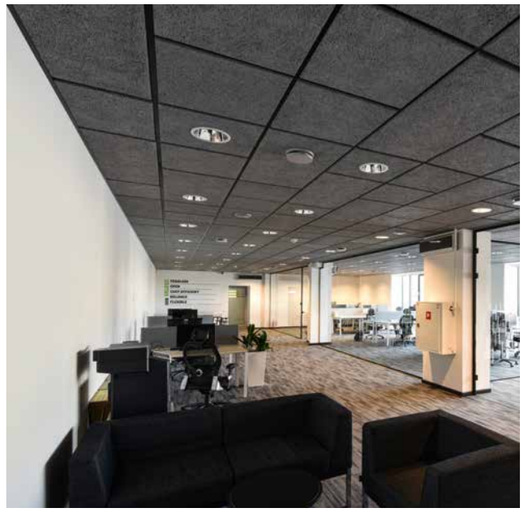
Practical sound absorption coefficient in the α_p octave band according to standart EN ISO 354, Extended sound absorption coefficient α_w and sound absorption class according to standart EN ISO 11654:1997



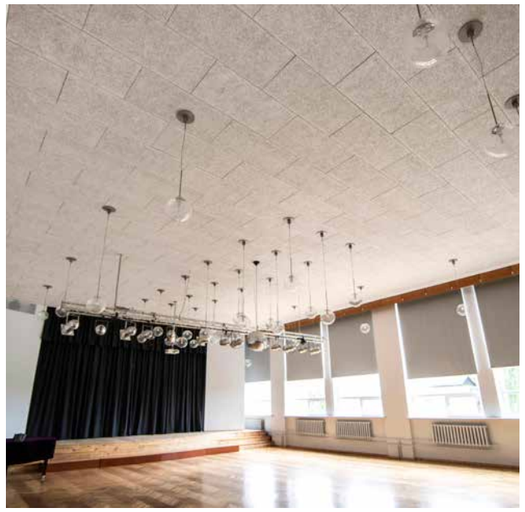
H – height; **a** – air gap; **d** – mineral wool; **c** – CEWOOD panel

A particularly effective usage of the panels is sound absorbing structures in large rooms for reducing the space's sound reverberation time and improving the working environment. CEWOOD panels can be used for making plate-shaped screens with a pronounced absorbing nature for reducing the noise emission of equipment in the range of high-tone frequencies. An even more effective acoustic solution is to create three-dimensional finishing elements, such as pyramids, which exhibit a much higher absorption coefficient value, thanks to sound diffraction around the edges.

Panels, made from 3 mm wide wood wool and with higher density, better ensure the sound absorption at the low frequencies. In turn, panels made from 0.5 mm, 1 mm and 1.5 mm wide wood wool have better absorption properties in the high frequency range. The optimal sound absorption solution can be achieved by combining CEWOOD panels with a mineral wool insulation layer.



CEWOOD
WOOD WOOL PANELS

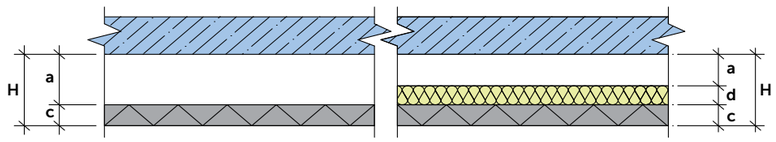


CEWOOD panels on lath constructions

CEWOOD panels on lath construction

Description	Total height H , mm	Air gap a, mm	Mineral wool d, mm	CEWOOD panel c, mm	Frequencies, Hz						Absorption coeffi-cient α_w	Absorption class
					125	250	500	1000	2000	4000		
35 mm CEWOOD panel, 30 mm mineral wool, 70 mm air gap	135	70	30	35	0,35	0,70	1,00	0,90	0,85	0,90	**0,90**	**A**
35 mm CEWOOD panel, without mineral wool, 100 mm air gap	135	100	0	35	0,15	0,35	0,70	0,70	0,70	0,85	**0,65**	**C**
25 mm A2 CEWOOD panel, 30 mm mineral wool, 70 mm air gap	125	70	30	25	0,35	0,70	1,00	0,90	0,80	0,90	**0,90**	**A**
25 mm A2 CEWOOD panel, without mineral wool, 100 mm air gap	125	100	0	25	0,15	0,35	0,65	0,60	0,65	0,80	**0,60**	**C**
25 mm CEWOOD panel, 30 mm mineral wool, 70 mm air gap	125	70	30	25	0,35	0,70	1,00	0,90	0,85	0,90	**0,90**	**A**
25 mm CEWOOD panel, without mineral wool, 100 mm air gap	125	100	0	25	0,15	0,30	0,65	0,60	0,65	0,80	**0,60**	**C**

Practical sound absorption coefficient in the α_p octave band according to standart EN ISO 354,
Extended sound absorption coefficient α_w and sound absorption class according to standart EN ISO 11654:1997

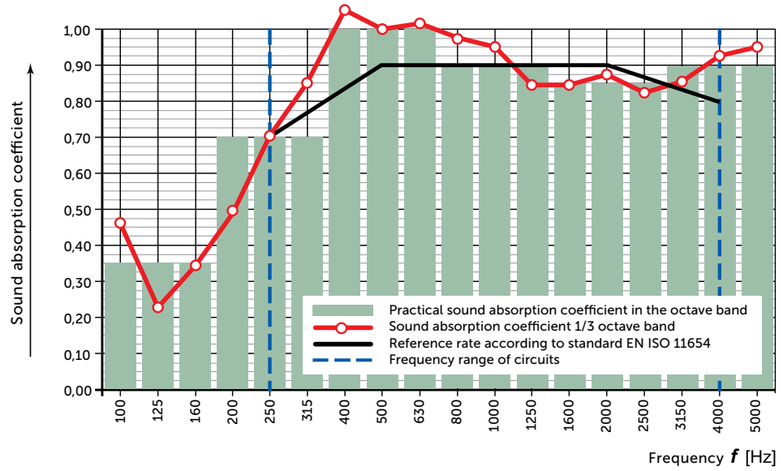


H – height; **a** – air gap; **d** – mineral wool; **c** – CEWOOD panel

Frequency f, Hz	α_s 1/3 oct.	α_p 1 oct.
[Hz]	[dB]	[dB]
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 on lath construction

25 mm CEWOOD panel, 30 mm mineral wool, 70 mm air gap

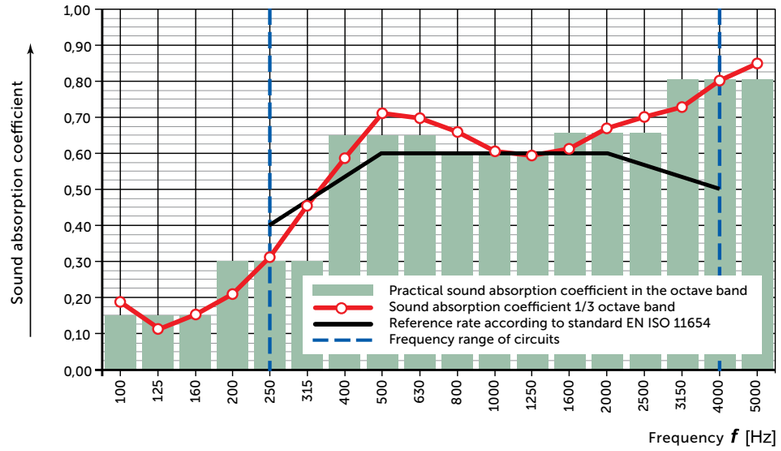


Practical sound absorption coefficient according to standart EN ISO 11654, α_w: **0,90**
Sound absorption class according to standart EN ISO 11654: **A**

Frequency f, Hz	α_s 1/3 oct.	α_p 1 oct.
[Hz]	[dB]	[dB]
50	-	-
63	-	-
80	-	-
100	0,19	
125	0,11	**0,15**
160	0,14	
200	0,21	
250	0,31	**0,30**
315	0,45	
400	0,58	
500	0,71	**0,65**
630	0,69	
800	0,66	
1000	0,60	**0,60**
1250	0,59	
1600	0,61	
2000	0,67	**0,65**
2500	0,70	
3150	0,73	
4000	0,80	**0,80**
5000	0,85	
6300	-	-
8000	-	-
10000	-	-

CEWOOD panels on lath construction

25 mm CEWOOD panel, without mineral wool, 100 mm air gap



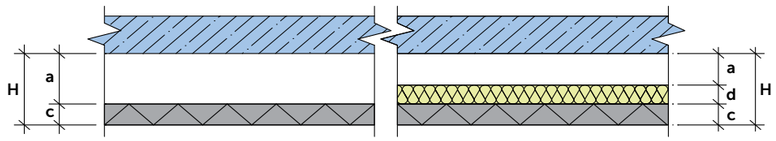
Practical sound absorption coefficient according to standart EN ISO 11654, α_w: **0,60**
Sound absorption class according to standart EN ISO 11654: **C**

CEWOOD panels in T-24 profiles

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

Description	Total height H , mm	Air gap a, mm	Mineral wool d, mm	CEWOOD panel c, mm	Frequencies, Hz						Absorption coefficient α_w	Absorption class
					125	250	500	1000	2000	4000		
35 mm CEWOOD panel, 50 mm mineral wool, 150 mm air gap	235	150	50	35	0,55	0,85	0,95	0,85	0,85	0,95	**0,90**	**A**
25 mm CEWOOD panel, 50 mm mineral wool, 150 mm air gap	225	150	50	25	0,55	0,80	0,95	0,90	0,85	0,95	**0,90**	**A**
15 mm CEWOOD panel, 50 mm mineral wool, 150 mm air gap	215	150	50	15	0,50	0,80	0,95	0,90	0,85	0,90	**0,90**	**A**
15 mm CEWOOD panel, 20 mm mineral wool, 180 mm air gap	215	180	20	15	0,35	0,70	0,90	0,90	0,85	0,90	**0,90**	**B**
25 mm CEWOOD panel, 20 mm mineral wool, 180 mm air gap	225	180	20	25	0,35	0,70	0,90	0,90	0,85	0,90	**0,90**	**A**
35 mm CEWOOD panel, 20 mm mineral wool, 180 mm air gap	235	180	20	35	0,45	0,70	0,90	0,85	0,85	1,00	**0,90**	**A**
35 mm CEWOOD panel, without mineral wool, 200 mm air gap	235	200	0	35	0,30	0,50	0,60	0,60	0,75	0,90	**0,65**	**C**
25 mm CEWOOD panel, without mineral wool, 200 mm air gap	225	200	0	25	0,25	0,45	0,55	0,55	0,70	0,85	**0,60**	**C**
15 mm CEWOOD panel, without mineral wool, 200 mm air gap	215	200	0	15	0,20	0,45	0,55	0,55	0,65	0,80	**0,60**	**D**

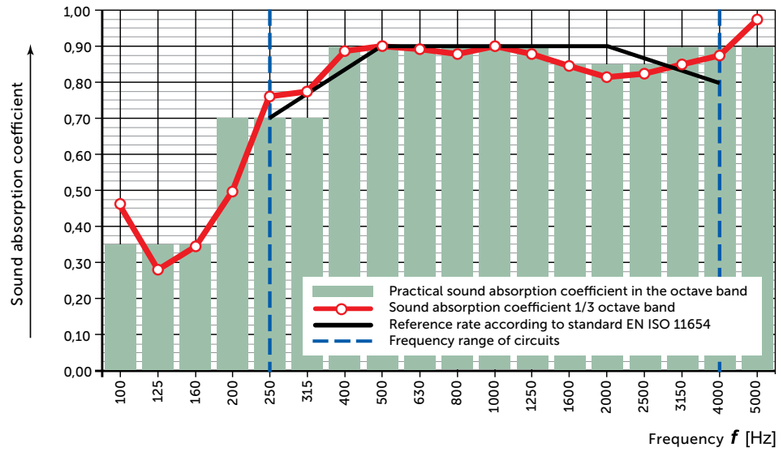
Practical sound absorption coefficient in the α_p octave band according to standart EN ISO 354,
Extended sound absorption coefficient α_w and sound absorption class according to standart EN ISO 11654:1997



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

Frequency f, Hz	α_s 1/3 oct.	α_p 1 oct.
[Hz]	[dB]	[dB]
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	-	-

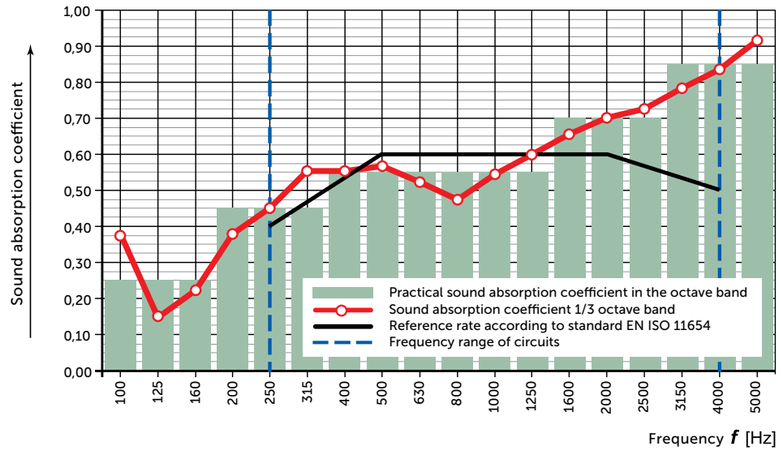
CEWOOD panels in suspended ceiling systems (T-24 profiles)
25 mm CEWOOD panel, 20 mm mineral wool, 180 mm air gap



Practical sound absorption coefficient according to standart EN ISO 11654, α_w: **0,90**
Sound absorption class according to standart EN ISO 11654: **A**

Frequency f, Hz	α_s 1/3 oct.	α_p 1 oct.
[Hz]	[dB]	[dB]
50	-	-
63	-	-
80	-	-
100	0,37	
125	0,14	**0,25**
160	0,22	
200	0,38	
250	0,45	**0,45**
315	0,55	
400	0,56	
500	0,57	**0,55**
630	0,52	
800	0,47	
1000	0,55	**0,55**
1250	0,61	
1600	0,66	
2000	0,71	**0,70**
2500	0,73	
3150	0,78	
4000	0,84	**0,85**
5000	0,92	
6300	-	-
8000	-	-
10000	-	-

CEWOOD panels in suspended ceiling systems (T-24 profiles)
25 mm CEWOOD panel, without mineral wool, 200 mm air gap



Practical sound absorption coefficient according to standart EN ISO 11654, α_w: **0,60**
Sound absorption class according to standart EN ISO 11654: **C**

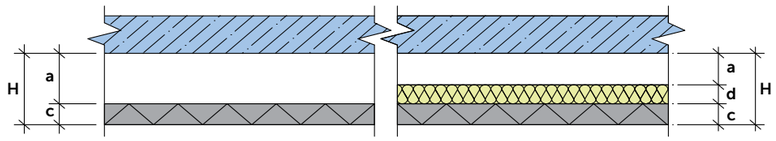
CEWOOD panels in different constructions

CEWOOD panels – different constructions

Description	Total height H , mm	Air gap a, mm	Mineral wool d, mm	CEWOOD panel c, mm	Frequencies, Hz						Absorption coefficient α_w	Absorption class
					125	250	500	1000	2000	4000		
25 mm CEWOOD panel, without mineral wool, 60 mm air gap	85	60	0	25	0,10	0,30	0,55	0,60	0,50	0,60	**0,55**	**D**
25 mm CEWOOD panel, without mineral wool, 200 mm air gap	225	200	0	25	0,25	0,50	0,55	0,50	0,60	0,65	**0,55**	**D**
50 mm CEWOOD panel, without mineral wool, 200 mm air gap	250	200	0	50	0,40	0,60	0,55	0,65	0,70	0,70	**0,65**	**C**
25 mm CEWOOD panel, with 50 mm mineral wool, 10 mm air gap	85	10	50*	25	0,40	0,79	0,78	0,76	0,73	0,70	**0,80**	**B**
25 mm CEWOOD panel, with 100 mm mineral wool, 100 mm air gap	225	100	100*	25	0,79	0,72	0,73	0,81	0,78	0,72	**0,80**	**B**
25 mm CEWOOD panel, with 50 mm mineral wool, 150 mm air gap	225	150	50*	25	0,52	0,81	0,74	0,87	0,77	0,73	**0,80**	**B**
25 mm CEWOOD panel, with 30 mm mineral wool, without air gap	55	0	30**	25	0,25	0,55	1,00	0,95	0,85	0,85	**0,85**	**B**
25 mm CEWOOD panel, with 50 mm mineral wool, without air gap	75	0	50**	25	0,35	0,70	1,00	0,95	0,85	0,95	**0,90**	**A**
25 mm CEWOOD panel, without mineral wool, 50 mm air gap	75	50	0	25	0,10	0,25	0,55	0,65	0,55	0,65	**0,50**	**D**
15 mm CEWOOD panel, with 50 mm mineral wool, without air gap	65	0	50**	15	0,30	0,65	1,00	0,85	0,75	0,80	**0,85**	**B**
15 mm CEWOOD panel, without mineral wool, 50 mm air gap	65	50	0	15	0,10	0,20	0,50	0,65	0,55	0,65	**0,50**	**D**

***** mineral wool, approx. 30 kG/m³; ****** mineral wool, approx. 90 kG/m³.

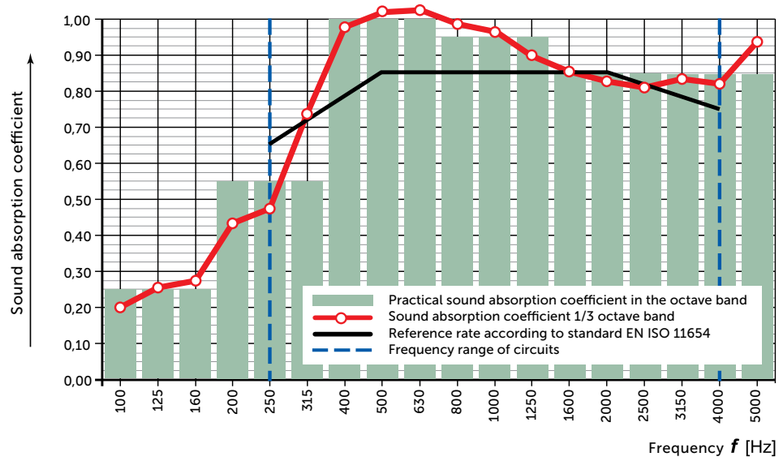
Practical sound absorption coefficient in the α_p octave band according to standart EN ISO 354,
Extended sound absorption coefficient α_w and sound absorption class according to standart EN ISO 11654:1997



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

Frequency f, Hz	α_s 1/3 oct.	α_p 1 oct.
[Hz]	[dB]	[dB]
50	-	-
63	-	-
80	-	-
100	0,20	
125	0,25	**0,25**
160	0,27	
200	0,43	
250	0,47	**0,55**
315	0,73	
400	1,00	
500	1,05	**1,00**
630	1,06	
800	0,99	
1000	0,96	**0,95**
1250	0,90	
1600	0,85	
2000	0,83	**0,85**
2500	0,81	
3150	0,84	
4000	0,82	**0,85**
5000	0,93	
6300	-	-
8000	-	-
10000	-	-

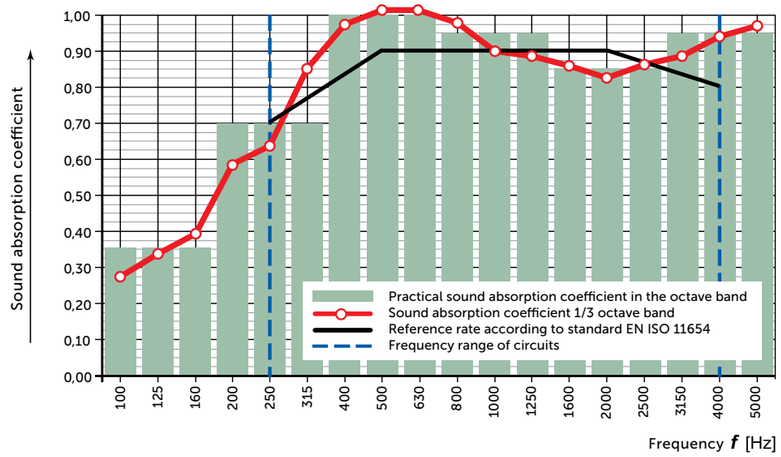
CEWOOD panels – different constructions
25 mm CEWOOD panel, with 30 mm mineral wool, without air gap



Practical sound absorption coefficient according to standart EN ISO 11654, α_w: **0,85**
Sound absorption class according to standart EN ISO 11654: **B**

Frequency f, Hz	α_s 1/3 oct.	α_p 1 oct.
[Hz]	[dB]	[dB]
50	-	-
63	-	-
80	-	-
100	0,27	
125	0,33	**0,35**
160	0,39	
200	0,58	
250	0,63	**0,70**
315	0,85	
400	1,10	
500	1,09	**1,00**
630	1,09	
800	1,00	
1000	0,90	**0,95**
1250	0,88	
1600	0,86	
2000	0,82	**0,85**
2500	0,86	
3150	0,89	
4000	0,94	**0,95**
5000	0,97	
6300	-	-
8000	-	-
10000	-	-

CEWOOD panels – different constructions
25 mm CEWOOD panel, with 50 mm mineral wool, without air gap



Practical sound absorption coefficient according to standart EN ISO 11654, α_w: **0,90**
Sound absorption class according to standart EN ISO 11654: **A**

CEWOOD Design tiles

CEWOOD Design tiles

CEWOOD Design tiles is a new direction and proof of wood wool versatility and aesthetic features. Each tile is custom made with personal touch and it allows to create unique or classic interiors not only by professional architects, designers but also by private users. Tiles are available in various colours and shapes to meet every customer demand.

Wood wool: 1.0 mm

Panel thickness: 25 mm, other available upon request.

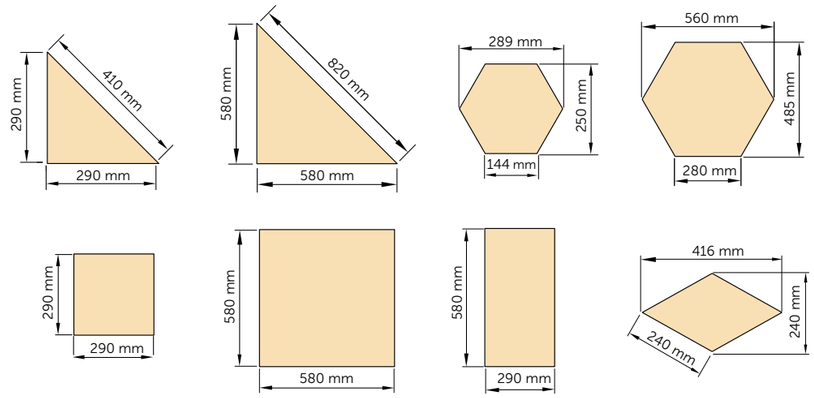
Applications

- Ceilings
- Walls
- Decorative elements

High-quality wood wool

- Durable
- Various finishes & colours
- Consistent thickness & dimensions
- Clean corners
- Cost-effective
- Versatile – ceiling or wall mount as a surface finish
- An effective sound absorber

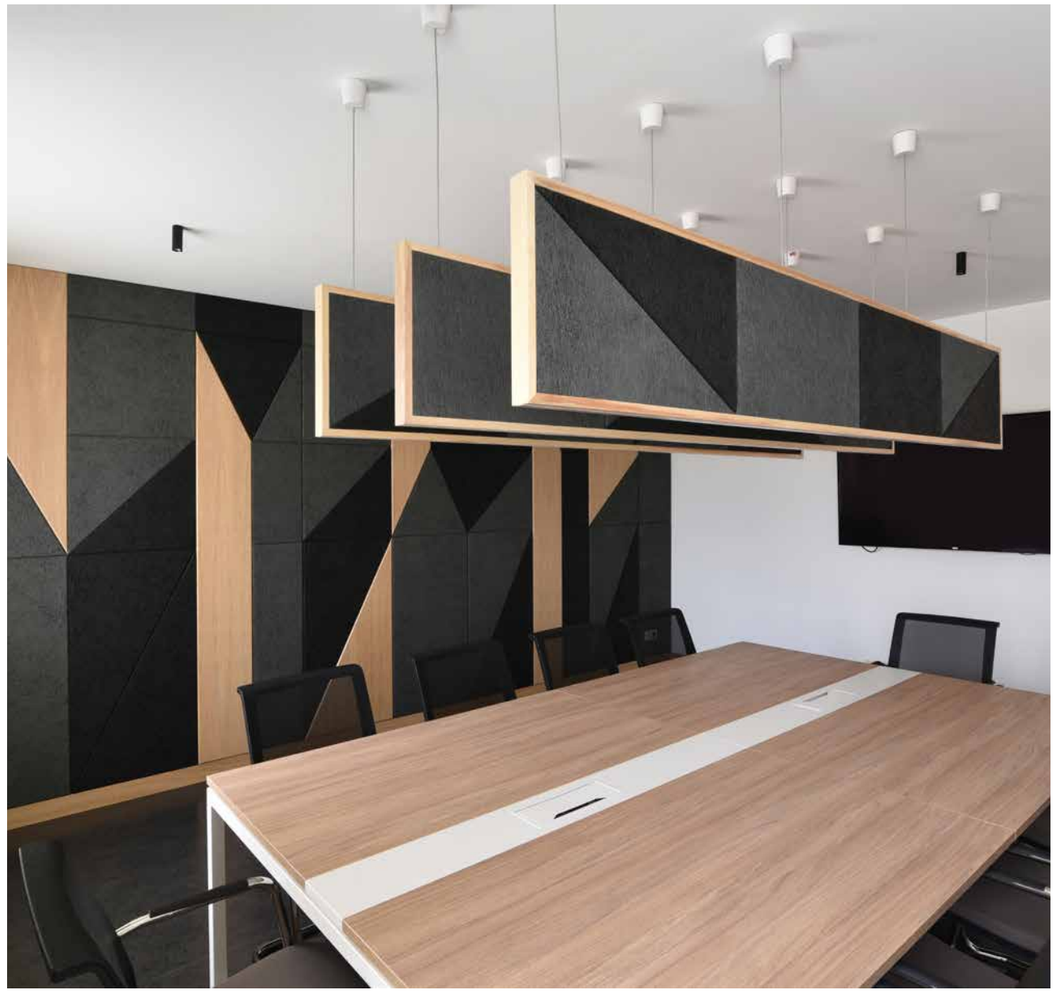
Top-selling shapes



Mounting of CEWOOD Design tiles

CEWOOD Design tiles allow creating an expressive wall finishing. The design tiles are attached with adhesive filler or mounting glue on to a base of plasterboard panels or other resistant bases. The type of glue is determined by the manufacturer of base panels. The frame of fastening of plasterboard panels is made of wood laths or tin steel profiles.

CEWOOD
WOOD WOOL PANELS



Acoustic panel ceiling

Acoustic panel ceiling

The acoustic panels are a convenient and functional material offering numerous applications for ceiling and wall finishing. Various types of panel fastening are possible: T profiles, CD profiles, as well as lathing or fastening onto a wall with glue.

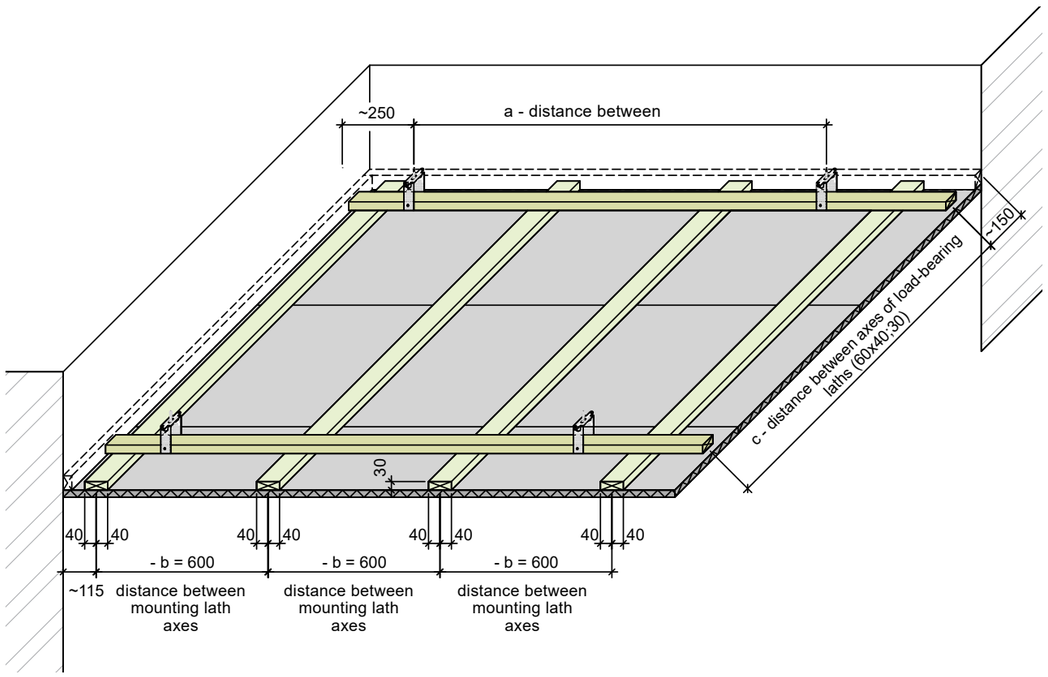
The use of acoustic panels in the decoration of ceilings and walls improves soundproofing of rooms, ensures noise absorption, thereby creating a comfortable working and living environment. Owing to the excellent acoustic, aesthetic and mechanical properties, the panels are particularly well-suited for public buildings — offices, educational establishments, as well as premises with elevated humidity — spas, fitness gyms, swimming pools, production and residential premises. They are widely used for finishing in professional sound processing studios, cinemas, concert halls and recreation centres, where limiting sound distribution and permeability is particularly important.

Galvanized steel tin profiles and accessories of fastening joints are used to fasten CEWOOD panels onto frame structures.

The ceiling structure is formed of a wooden lath or steel tin profile frame, T-type load-bearing elements, which are fastened with special suspension elements to the load-bearing structures. The type of suspension elements depends on the load-bearing ceiling structure, as well as on the mineral wool used for increasing sound absorption.

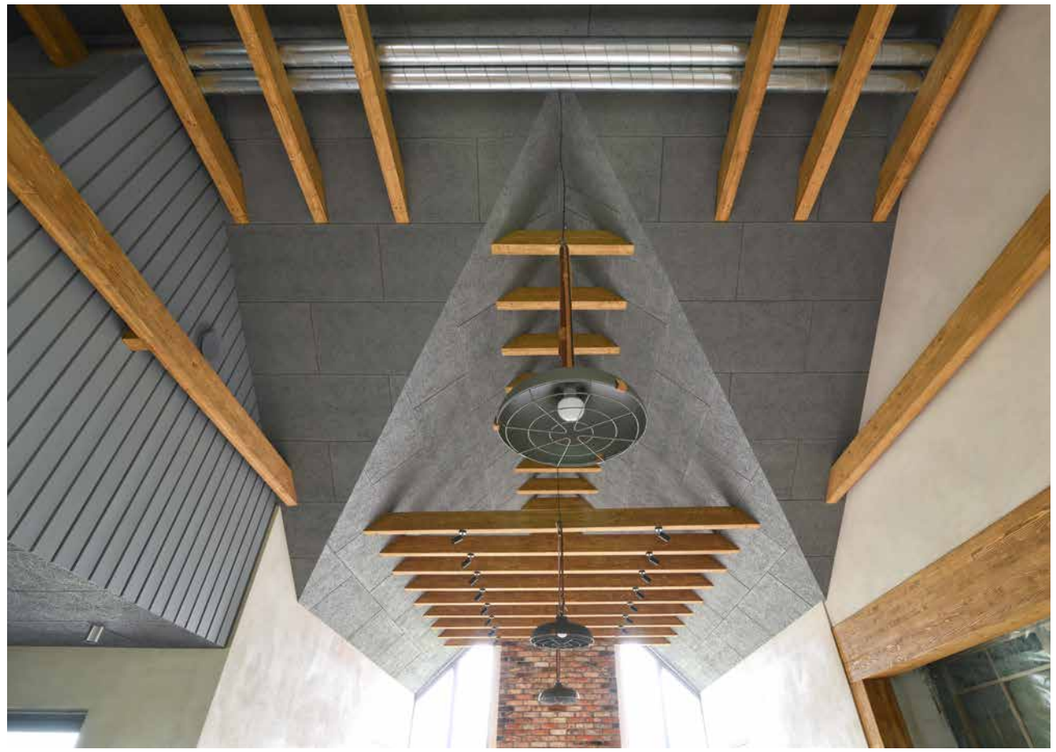
Fastening on wood laths

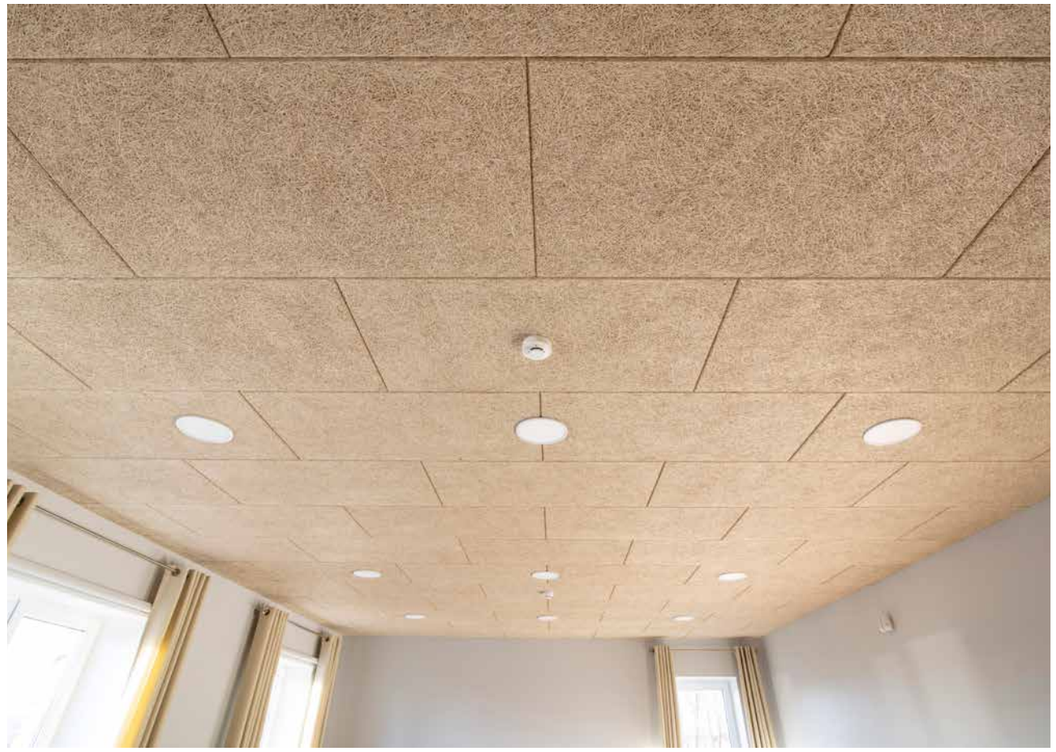
The frame for fastening of CEWOOD panels is formed of:
- load-bearing laths, which with suspension elements are fastened onto the building's load-bearing structures;
- mounting laths fastened onto load-bearing laths, onto which CEWOOD Acoustic panels are attached.



Mounting distances of frame lathing

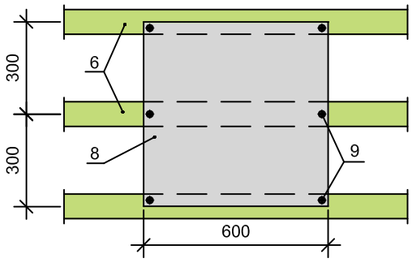
Load-bearing lath, cross section 60/40 or 60/30	Mounting lath, cross section 80/30	a - suspension distances/fastenings Load class kN/m²		
distance between axes – c - mm	distance between axes – b - mm	up to 0.15	up to 0.30	up to 0.50
600	600	1150	900	750
900	600	1000	800	
1000	600	950		
1200	600	900		
Must use suspensions with load resistance of 0.40 kN Assume load-bearing lath cross section of 60x40 mm or 60x30 mm depending on calculated loads and the used type of fastenings.				





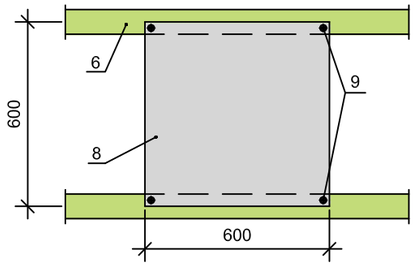
Standard screw pattern for CEWOOD Acoustic panels

1. Fastening of 15 mm CEWOOD Acoustic panels with screws on wood laths 80x30 (h)

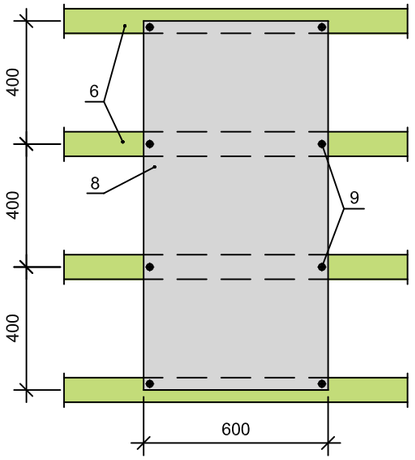


Panel 600x600 fixation with 6 screws.

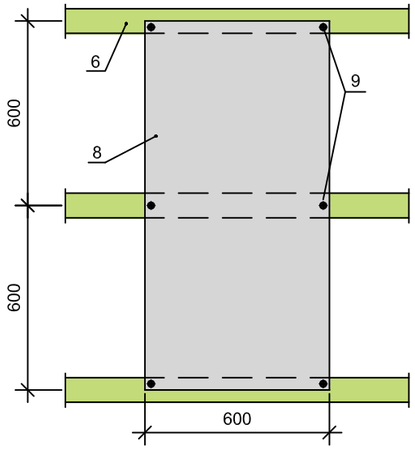
2. Fastening of 25 mm and 35 mm CEWOOD Acoustic panels with screws on wood laths 80x30 (h)



Panel 600x600 fixation with 4 screws.



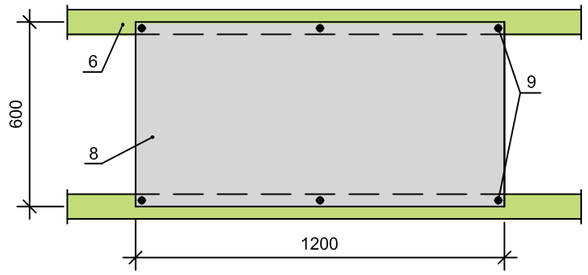
Panel 600x1200 fixation with 8 screws.



Panel 600x1200 fixation with 6 screws.

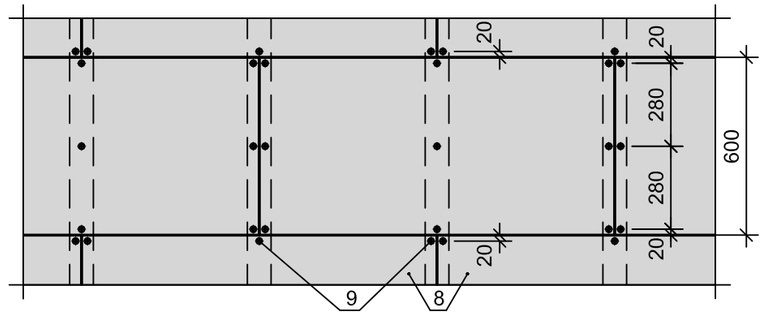
Explanation of numbering:

6. Mounting lath 80x30 (h) mm.
8. CEWOOD Acoustic panels.
9. Galvanized or painted quick construct screws 4,5 (4,65)x50 mm with head Ø 12 mm.

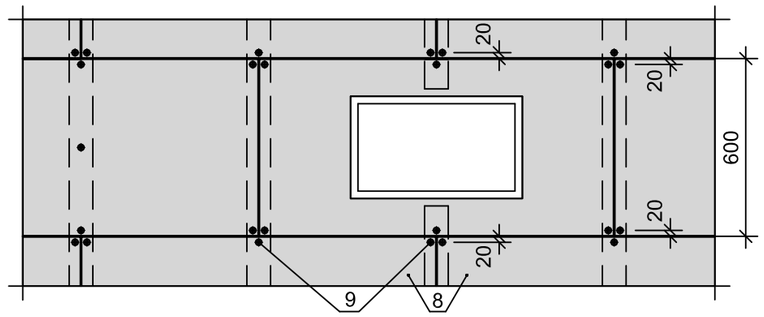


Panel 600x1200 fastening with 6 screws longitudinally on laths

Fastening of impact-resistant CEWOOD Acoustic panel ceilings with screws, maximum step 315 mm (e.g., in fitness halls).



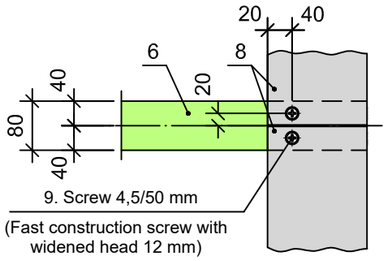
CEWOOD Acoustic panel ceiling – installation of maintenance openings

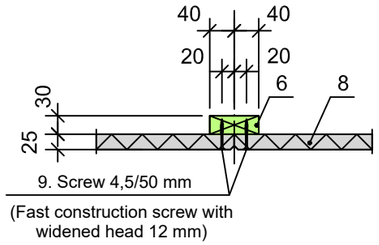


Explanation of numbering:

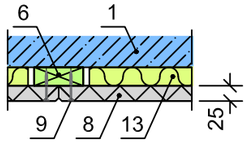
8. CEWOOD Acoustic panels.
9. Galvanized or painted quick construct screws 4,5 (4,65)x50 mm with head Ø 12 mm.

Fastening of CEWOOD panels onto a mounting lath 80x30 (h) mm





Fastening of a mounting lath onto a load-bearing lath



Mounting laths 80x30 (h) mm are fastened directly onto the load-bearing structure.

The construction can be used if ceiling leveling is not required.

Sizes of panel fastening screws

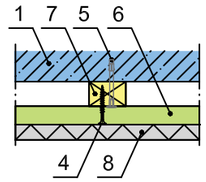
Sizes of screws depending on panel thickness			
Panel thickness	15 mm	25 mm	35 mm
Screw sizes according to EIRONORM M5027 (mm)	4.5/35	4.5/50	4.5/60

Explanation of numbering:

1. Load-bearing slab structure.
4. Screw 4.65x60.
6. Mounting lath 80x30 (h) mm.
8. CEWOOD Acoustic panels.
9. Galvanized or painted quick construct screws 4,5 (4,65)x50 mm with head Ø 12 mm.
13. Mineral wool.

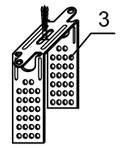
Fastening of load-bearing laths 60x40 or 60x30 mm onto the load-bearing slab structure.

Direct fixation

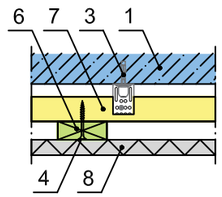


Connection of longitudinal edges.

No. 3. U-type clamp with load resistance of 0.40 kN



U-type clamp



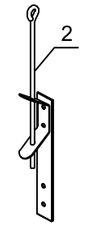
Connection of end edges,
U-type clamp 0.40 kN.

Explanation of numbering:

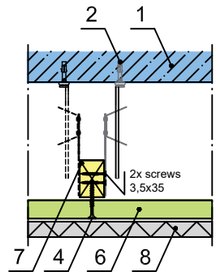
1. Load-bearing slab structure.
2. Quick suspension 0.15 kN.
3. U-type clamp 0.40 kN.
4. Screw 4.65x60.
5. Conical anchor M6, for the load-bearing slab structure.
6. Mounting lath 80x30 (h) mm.
7. Load-bearing lath of 60x30 mm or 60x40 mm depending on calculated loads and the used type of fastening.
8. CEWOOD Acoustic panels.

No. 2. Quick suspension for wooden frame structure 0.25 kN (estimated load-bearing capacity 0.25x0.6=0.15 kN).

- Maximum step of quick suspension 600 mm.
- Maximum distance from the wall for quick suspension - 190 mm.

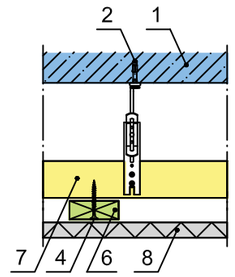


With quick suspension



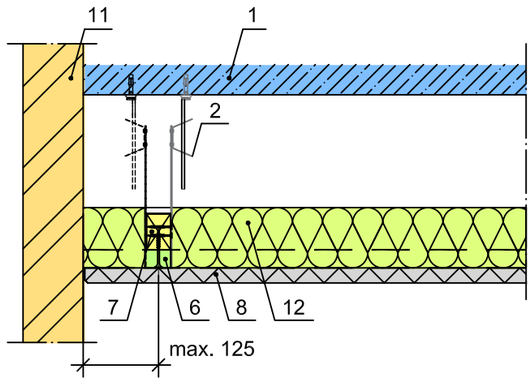
Connection of longitudinal edges, by changing the fastening side (alternating fastening).

With quick suspension

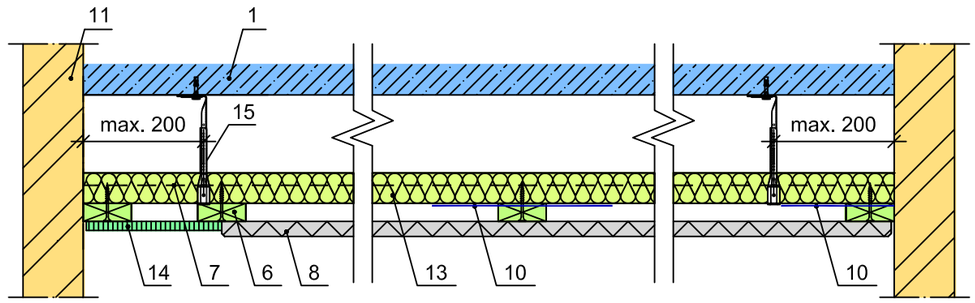


Connection of end edges,
load-bearing lath 40x60 mm.

Acoustic panel ceiling (fastening with quick suspension). Joint without shadow gap.



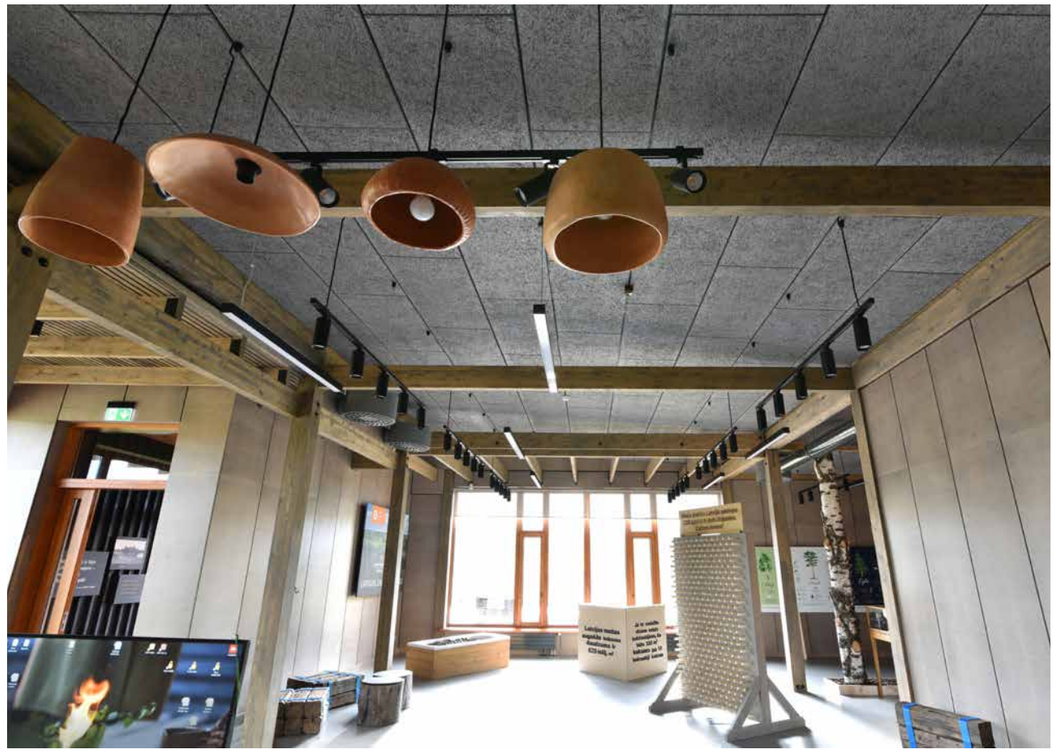
Acoustic panel ceiling (fastening with Nonius suspension 0.40 kN, maximum mounting step 900 mm).

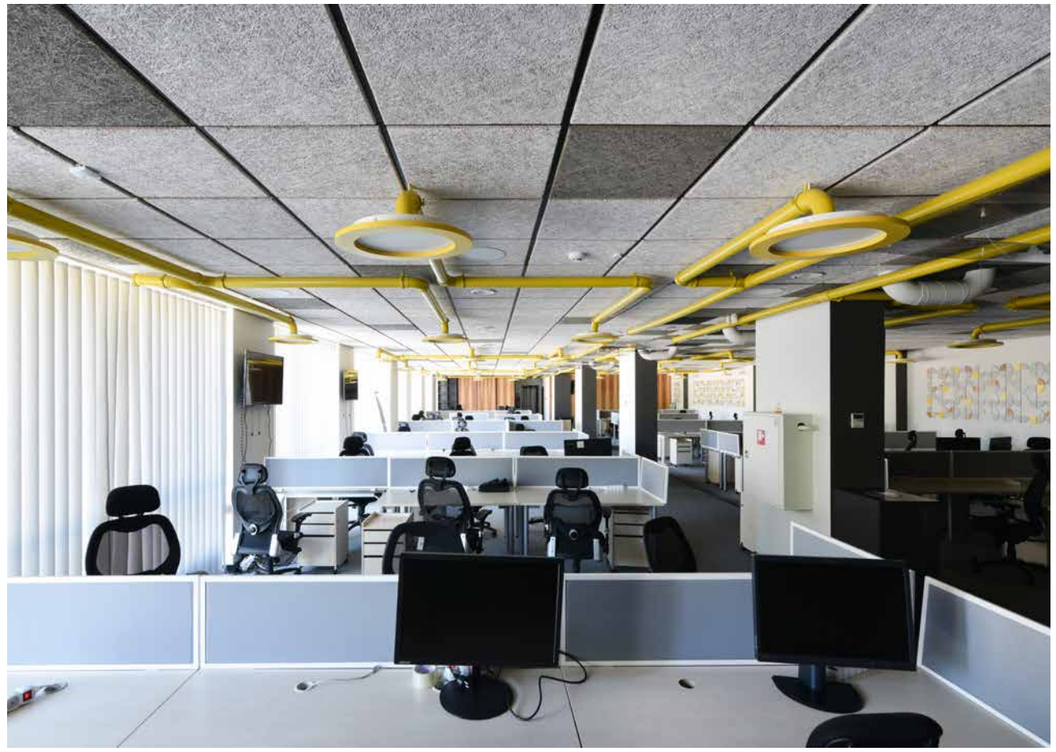


Explanation of numbering:

1. Load-bearing slab structure.
2. Quick suspension 0.15 kN.
6. Mounting lath 80x30 (h) mm.
7. Load-bearing lath of 60x30 mm or 60x40 mm depending on calculated loads and the used type of fastening.
8. CEWOOD Acoustic panels.
10. Metal sheet 300/30/0.8, step 400 mm.
11. Existing wall structure.
12. Mineral wool 30 kg/m^3, thickness ≥ 80 mm.
13. Mineral wool 90 kg/m^3, thickness 50 mm.
14. Plasterboard GFK-A2, thickness 15 mm.
15. Nonius suspension 0.40 kN.

Note: Type and thickness of mineral wool shall be determined in the building project.





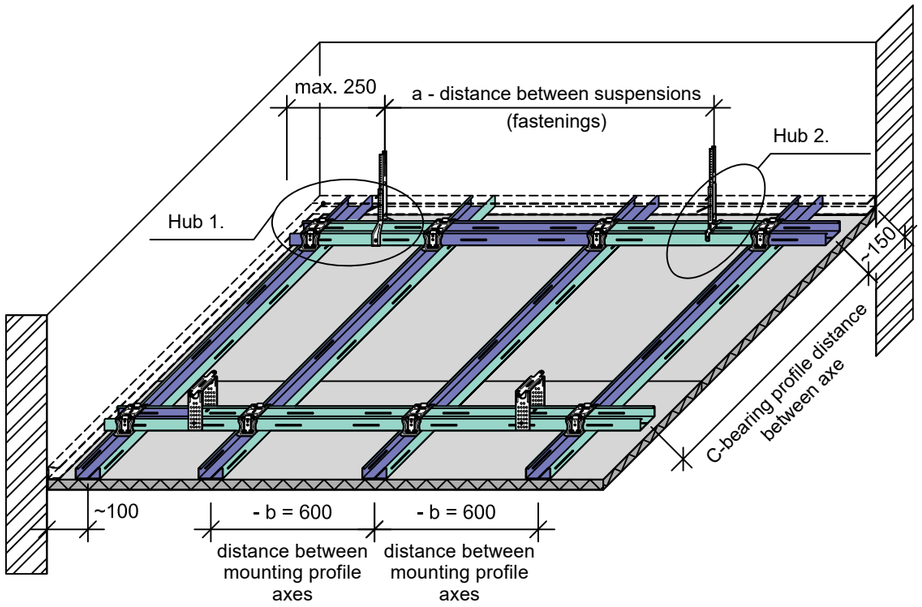
Fastening on CD metal sections

The frame is made of perpendicularly arranged CD type profiles 60/27/0.6.

CD profile placement, fastening onto load-bearing structures and connection as per CD type profile producers guidelines.

CD-type load-bearing and mounting profiles are connected using a cross-connection panel.

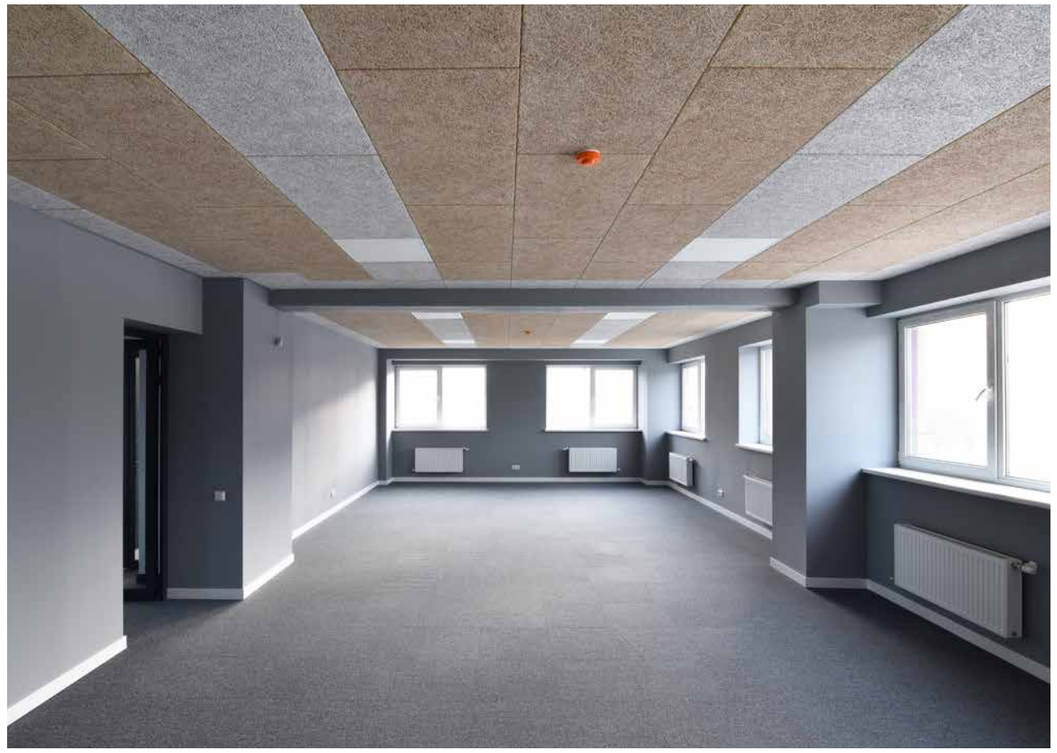
CD profile frame is fixed onto load-bearing structures with a U-type suspension, wire or so-called quick suspension, as well as a Nonius type clamp. Placement of suspension elements and bearing capacities are stated in table.

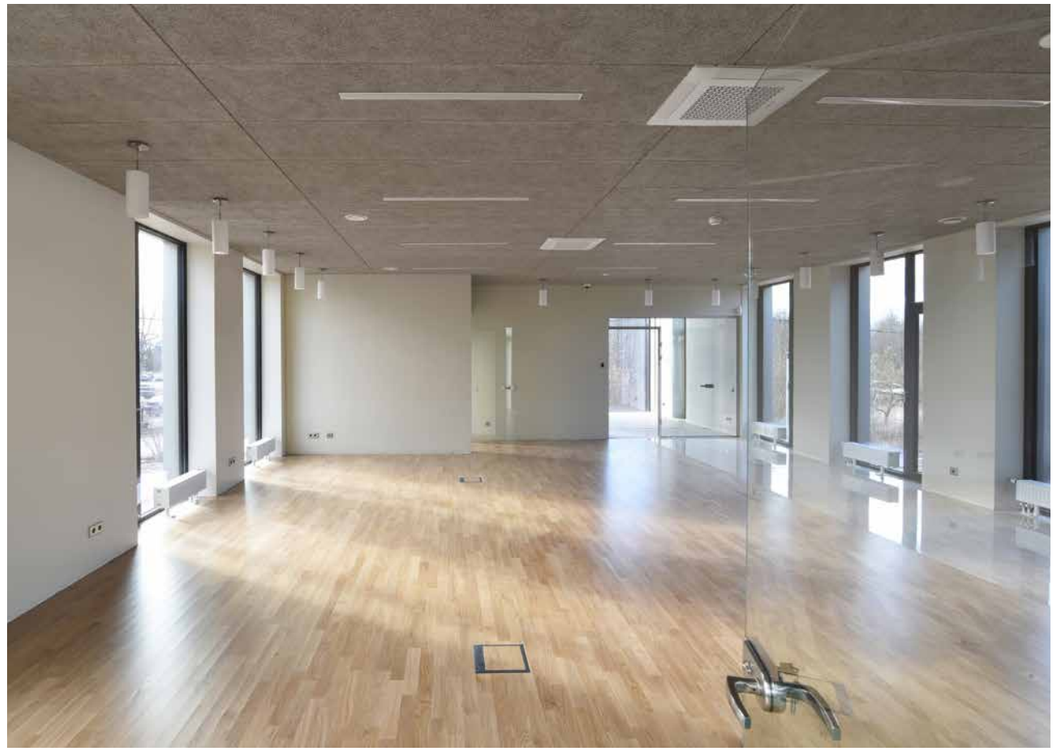


Profile mounting step 600 mm.

Maximum mounting distances of frame profiles

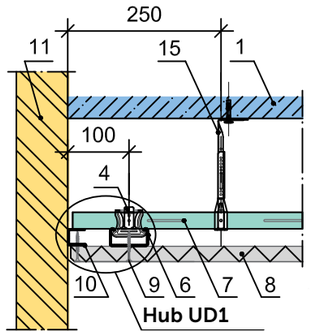
Load-bearing profile CD 60/27/0,6 mm	Mounting profile CD 60/27/0,6 mm	a - suspension distances/fastenings Load class kN/m²			Only ceiling under ceiling
distance between axes – C - mm	distance between axes - b - mm	up to 0,15	up to 0,30	up to 0,50	up to 0,65
600	600	1150	900	750	700
900	600	1000	800		
1000	600	950	750		
1200	600	900			
Must use suspensions with load-bearing capacity of 0.40 kN					





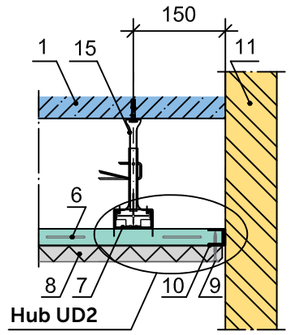
Suspended with Nonius suspension 0.40 kN

Hub 1



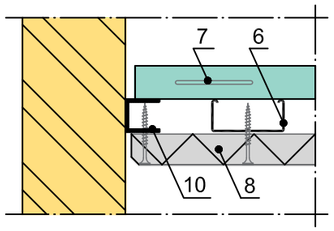
Joint between end edges, connection to the wall.

Hub 2

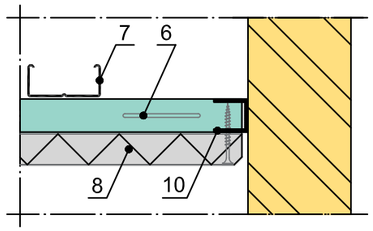


Joint between longitudinal edges.

Hub UD1



Hub UD2



Suspension bearing capacity:

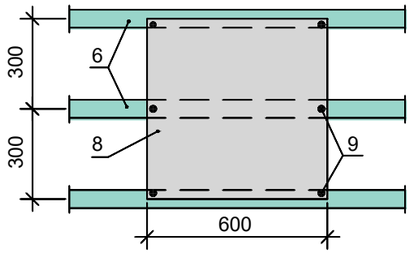
- quick suspension with anchor fixation - 0,25 kN x 6=0,15 kN
- Nonius suspension - 0.40 kN
- Nonius clip - 0.40 kN
- combined suspension:
  - with wire - 0.15 kN
  - with top part of Nonius suspension - 0.40 kN

Explanation of numbering

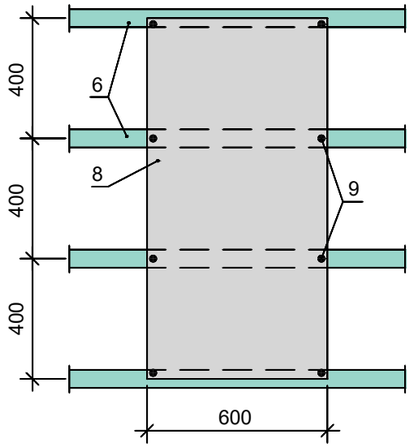
1. Load-bearing slab structure.
4. Cross-connector for CD profile 60x27x0.6 mm (before mounting fold down by 90°). Alternative: 2x anchor angles for CD profile 60x27x0.6 mm (fold down before mounting).
6. Mounting CD profile 60x27x0.6 mm.
7. Load-bearing CD profile 60x27x0.6 mm.
8. CEWOOD Acoustic panels.
9. Galvanized or painted quick construct screws 4,5 (4,65)x50 mm with head Ø ≥9 mm.
10. Wall-mounted profile UD 28x27. Used as a mounting aid (see producers recommendations).
11. Existing wall structure.
15. Nonius suspension 0.40 kN.

Standard screw pattern for CEWOOD Acoustic panels

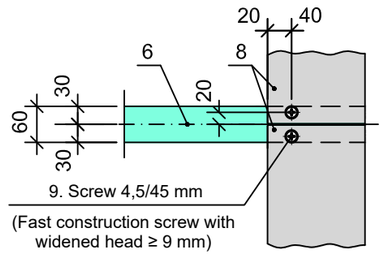
Fastening of 15 mm thick CEWOOD Acoustic panels with screws onto CD mounting profile 60/27/0.6 mm



Panel 600x600 fastening with 6 screws.

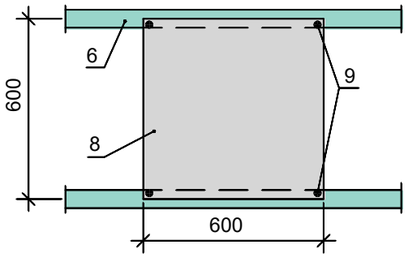


Panel 600x1200 fastening with 8 screws.

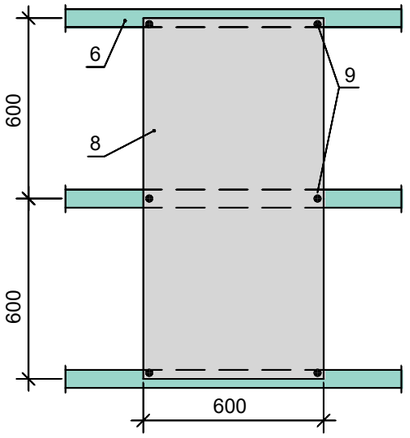


The connection seam is always formed under the CD mounting profile.

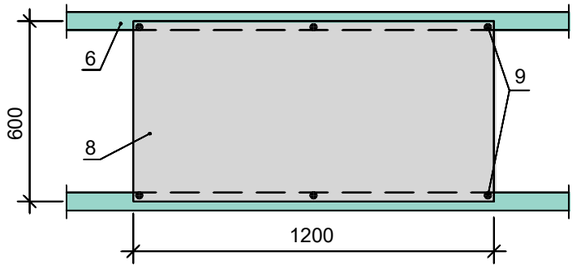
Fastening of 25 mm and 35 mm thick CEWOOD Acoustic panels with screws onto CD mounting profile 60/27/0.6 mm



Panel 600x600 fastening with 4 screws.



Panel 600x1200 fastening with 6 screws.



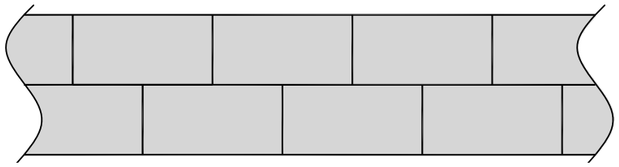
Panel 600x1200 fastening with 6 screws longitudinally

Explanation of numbering

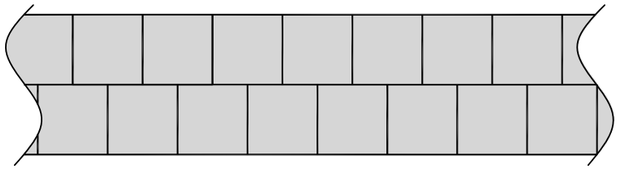
6. Mounting CD profile 60x27x0.6 mm.
8. CEWOOD Acoustic panels.
9. Galvanized or painted quick construct screws 4,5 (4,65)x50 mm with head Ø ≥9mm.

Pattern of CEWOOD Acoustic panels

Panel size 1200x600 mm



Panel size 600x600 mm



CEWOOD Acoustic panel fastening with mounting screws

Sizes of CEWOOD screws depending on panel thickness

Dimensions mm		Panel thickness (mm)
Length	Diameter Ø	
35	4,65	15
50	4,65	25
60	4,65	35
*the table was elaborated for a ceiling structure, using steel CD profiles 27/60/0.6 mm		

Quick construction screw consumption

Panel format (dimensions)	Screw consumption, pcs./m²	
	600/600 mm	600/1200 mm
Standard screw connection scheme. Panel thickness 25 and 35 mm.	12	9
Standard screw connection scheme. Panel thickness 15 mm.	23	14

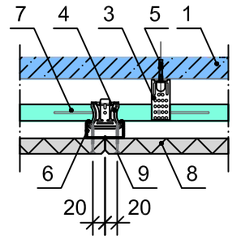
To mount CEWOOD Acoustic panels in premises with elevated humidity (e.g., swimming pools) and outdoors, galvanised or painted quick construction screws with a conical head of Ø ≥ 9 mm must be used.

Fastening of CD mounting profiles onto a load-bearing slab structure

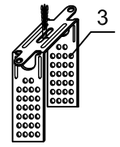
A CD mounting profile 60/27/0.6 mm is attached onto a CD load-bearing profile 60/27/0.6 mm using a 60x27 cross-connector of CD profile. A CD profile frame is fixed onto a load-bearing slab structure using a quick suspension, U type clamp or Nonius type fastening.

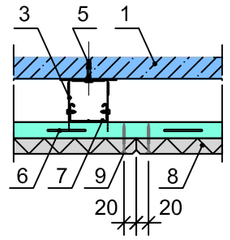
Direct fastening / Nr.3. U-type clamp with load resistance of 0.40 kN

Load-bearing and mounting profile connection:
A CD mounting profile 60/27/0.6 mm is attached onto a CD load-bearing profile 60/27/0.6 mm using a 60x27 cross-connector of CD profile.



Joint between longitudinal edges

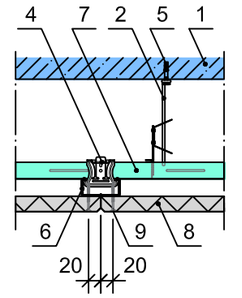




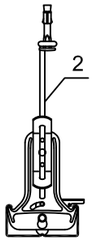
Joint between end edges

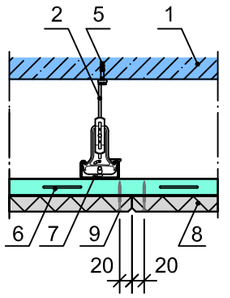
Nr. 2. Quick suspension with anchor fixation for fastening on metal sections

0,25 kN (estimated load-bearing capacity 0,25x0,6=0,15 kN)
Maximum step of quick suspension 600 mm.
Maximum distance from the wall for quick suspension 190 mm.



Joint between longitudinal edges





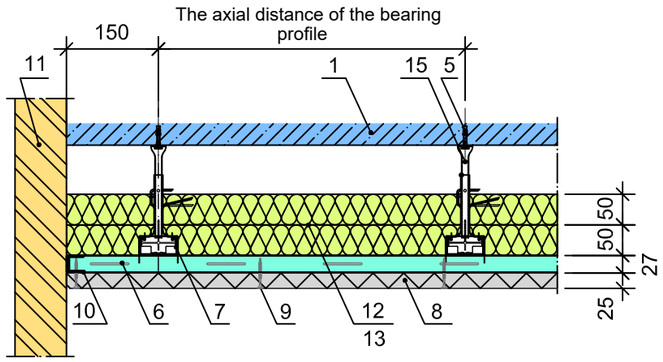
Joint between end edges

Explanation of numbering

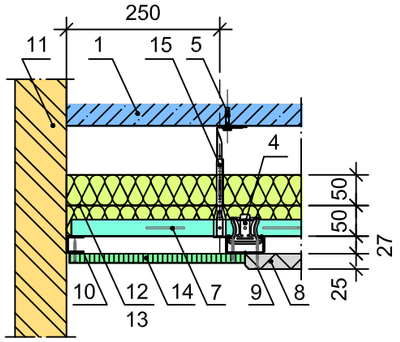
1. Load-bearing slab structure.
2. Quick suspension with anchor fixation - 0.15 kN
3. U-type clamp 0.40 kN.
4. Cross-connector for CD profile 60x27x0.6 mm (before mounting fold down by 90°). Alternative: 2x anchor angles for CD profile 60x27x0.6 mm (fold down before mounting).
5. Conical anchor M6.
6. Mounting CD profile 60x27x0.6 mm.
7. Load-bearing CD profile 60x27x0.6 mm.
8. CEWOOD Acoustic panels.
9. Galvanized or painted quick construct screws 4,5 (4,65)x50 mm with head Ø ≥9mm.

CEWOOD Acoustic panel ceiling with a mineral wool layer. Fastening with a Nonius suspension.

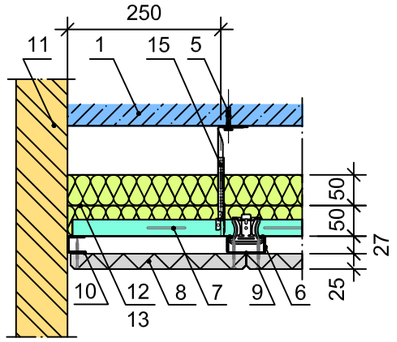
1. Joint with the wall without a shadow gap.



2. Ceiling and wall joint with a plasterboard frame with or without a shadow gap.



3. Ceiling and wall joint with a shadow gap.

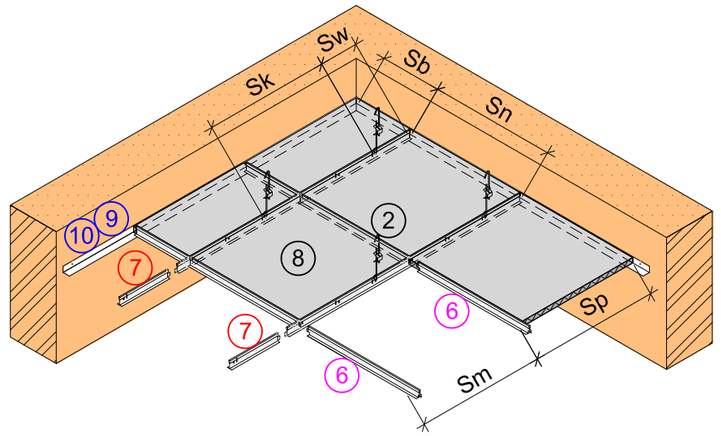


Explanation of numbering

1. Load-bearing slab structure.
4. Cross-connector for CD profile 60x27x0.6 mm (before mounting fold down by 90°). Alternative: 2x anchor angles for CD profile 60x27x0.6 mm (fold down before mounting).
5. Conical anchor M6.
6. Mounting CD profile 60x27x0.6 mm.
7. Load-bearing CD profile 60x27x0.6 mm.
8. CEWOOD Acoustic panels.
9. Galvanized or painted quick construct screws 4,5 (4,65)x50 mm with head Ø ≥9mm.
10. Wall-mounted profile UD 28x27. Used as a mounting aid (see producers recommendations).
11. Existing wall structure.
12, 13. Mineral wool 90 kg/m^3, thickness 50 mm.
(The surface layer is arranged perpendicular to the previous layer; panel seams must overlap).
14. Plasterboard frame GFK-A2, thickness 15 mm.
15. Nonius suspension 0.40 kN.

Note: Type and thickness of mineral wool shall be determined in the building project.

Suspended ceilings with visible T-sections



T-profile suspended ceiling frames are offered by a number of manufacturers. The ceiling frame consists of 4 key elements:

7 – Load-bearing profile lath;

6 – Profile cross-lath;

9; 10 – Perimeter profile;

2 – Suspension (hook).

For suspended ceilings the panels are made of special size – width 595 ±1 mm, length 1195, 595 ±1 mm. Other technical parameters of panels are stated in pp.14-17, CEWOOD panel edge profiles, see p.24.

The manufacturer declares the bearing capacity of the frame profile according to the standard EN 13964. The T 24 profile step is defined depending on the structural load provided the permissible flexure of 1/500 l. The step of the load-bearing profile laths of CEWOOD panel ceilings – 1200 or 600 mm, distance between mounting laths (axes) – 600 mm. Suspension distances are provided in table.

The procedure and methods of assembling the ceiling frame are determined by the manufacturer of structures. This informative material shows some examples of mounting solutions to create safe CEWOOD panel fastening structures.

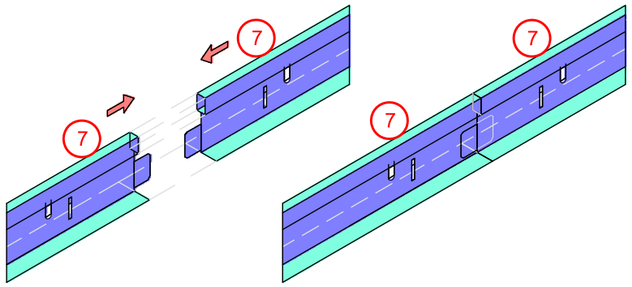
Distances of suspension (bearing capacity 0.15 kN) mounting

Load kN/m^2	0.12	0.15		0.20		0.25
Step between load-bearing profile laths Sn, mm	1200	1200	600	600	600	600
Step between suspensions Sk, mm	≤ 1000	≤ 900	≤1100	≤1000	≤1000	≤1000
Step between suspension and wall Sw, mm	≤ 250	≤ 250	≤250	≤200	≤200	≤200
Step between cross profile laths Sm, mm	600	600	600	600	1200	600
The size of Sb and Sp start and end panels and the step for profile laths are changed depending on the room size. Max. distance of a profile lath from wall 600 mm.						

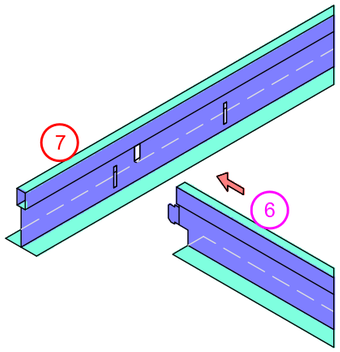
Note. With higher loads, the step between the suspensions must be accordingly reduced.

Frame elements

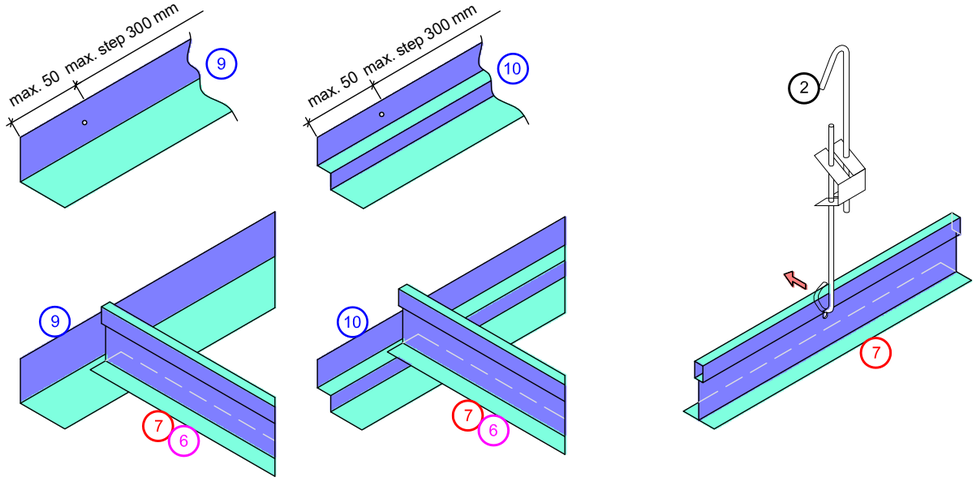
7 – Load-bearing profile lath and connection of its elements



6 – Cross element



9, 10 – Perimeter profiles, mounting

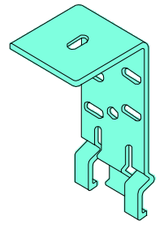


Explanation of numbering:

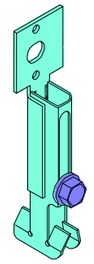
2. Quick, wire or Nonius suspension.
6. Cross lath profile T-24/38.
7. Load-bearing lath, profile T-24/38.
9. Perimeter angle profile ≥ 24x24x0.5 mm.
10. Gradual perimeter angle profile ÷ 19/9/11/22 mm.

Note: The double step perimeter profile is applicable to P0G, P5G, P5H, P5S edge profiles, please see profile specification.

14 - Hook HD CMC-Clips

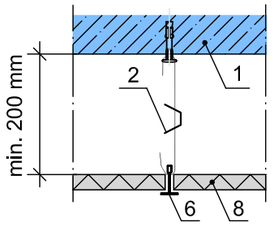


15 - Adjustable height hook

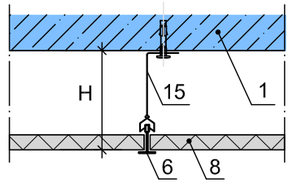


Suspension height H

Mounting height – quick suspension



Mounting height – adjustable height hooks



Explanation of numbering:

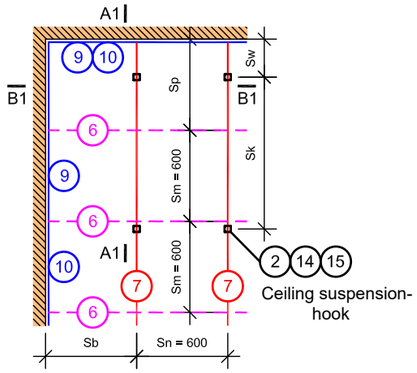
1. Load-bearing slab structure.
2. Quick, wire or Nonius suspension.
6. Cross lath profile T-24/38.
8. CEWOOD Acoustic panels.
15. Adjustable height hook.

Parameters of suspension types

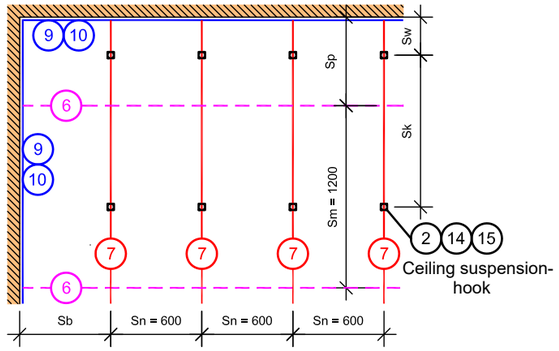
Type of suspension	CEWOOD panel thickness mm	Suspension height H	Suspension bearing kN
Quick (wire) suspension	15	180	0.15
	25	200	
	35	220	
Nonius type suspension	15, 25, 35	200	0.15
Non-variable height hooks	15, 25, 35	50, 80, 100	0.45
Variable height hooks	15, 25, 35	82 ÷ 113	0.15

T-type frame profile placement

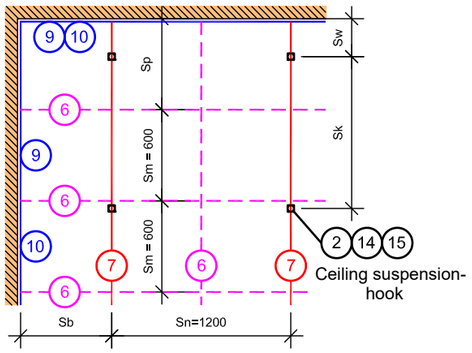
Profile placement for mounting of panels 595x595 mm
a) Sn=600 mm



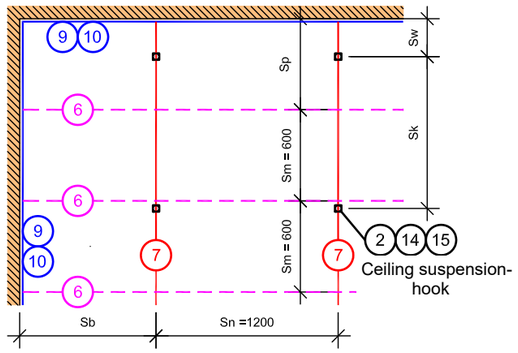
Profile placement for mounting of panels 595x1195 mm
c) Sn=600 mm



Profile placement for mounting of panels 595x595 mm
b) Sn=1200 mm



Profile placement for mounting of panels 595x1195 mm
d) Sn=1200 mm

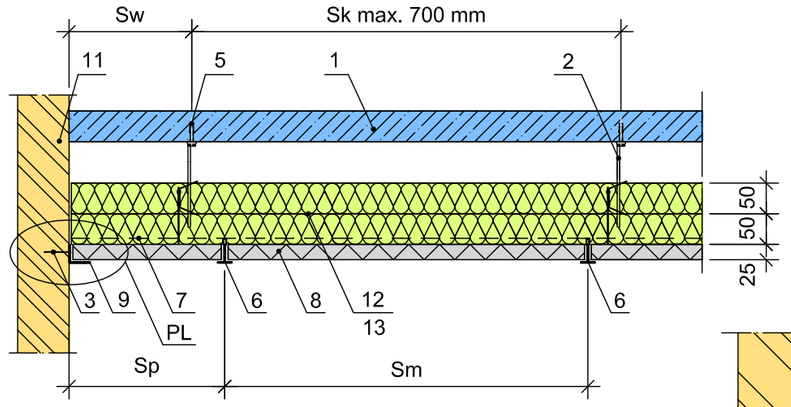


Explanation of numbering:

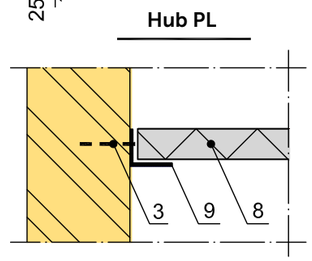
2. Quick, wire or Nonius suspension.
6. Cross lath profile T-24/38.
7. Load-bearing lath, profile T-24/38.
9. Perimeter angle profile ≥ 24x24x0.5 mm.
10. Gradual perimeter angle profile ÷ 19/9/11/22 mm.
14. Hook HD, type 21.1.
15. Adjustable height hook, *HD Richter system*.

Ceiling with an extra mineral wool layer for sound absorption

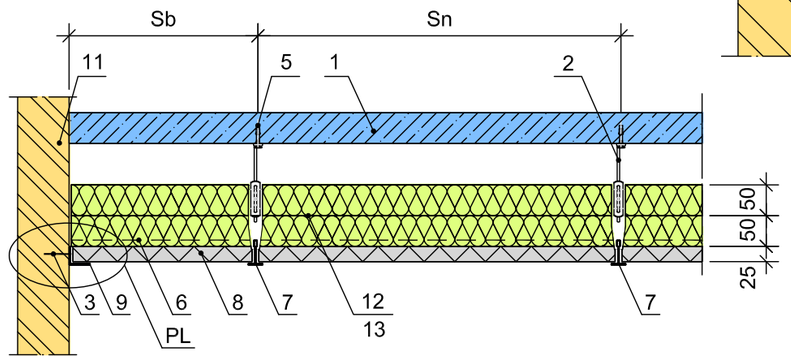
Section A1-A1, lath profile placement for panels 595x595 mm



Hub PL



Section B1-B1, lath profile placement for panels 595x595 mm



Explanation of numbering:

1. Load-bearing slab structure.
2. Quick, wire or Nonius suspension.
3. Perimeter angle fastening, galvanised screw 6x50 with a metal screw plug.
5. Conical anchor M6.
6. Cross lath profile T-24/38.
7. Load-bearing lath, profile T-24/38.
8. CEWOOD Acoustic panels.
9. Perimeter angle profile ≥ 24x24x0.5 mm.
11. Existing wall structure.
12; 13. Mineral wool 90 kg/m^3, thickness 50 mm.
(The surface layer is arranged perpendicular to the previous layer; panel seams must overlap)

Wall mounting with CEWOOD panels

Wall mounting with CEWOOD panels

25, 35 and 50 mm thick panels are used for wall mounting. CEWOOD panels are fastened onto a wooden lath or steel profile frame. There are several types of frame structures. The manufacturer of frame elements gives recommendations and defines the application. The type of frame structure and the fastening onto the existing wall depends on:

- strength of existing wall, material, deviations from vertical and horizontal planes,
- desirable CEWOOD panel design solution,
- required bearing capacity parameters, as well as load types.

The bearing capacity of structural loads must meet the requirements of LVS EN 13964.

Commonly used types of frames:

Wood lathing frame;

Wood lath double frame;

Metal profile frame;

The panel base of small sized (e.g., hexagonal) panels.

Important to note:

- The building project determines the fastening of the load-bearing frame into the wall. Normally used 4; 10. - angles L40x60x1.5 and fastening element 24 - screw plug Ø10x80 mm. For example, in a solid brick and ceramsite concrete block wall, the angle is mounted with a step of Lm; Ln = 0.8 ÷ 1.0 m. The angle fastening distance from the floor base and ceiling ≤ 250 mm.
- The frame structure is intended for horizontal load ≤ 0.5 kN/m^2.
- The load-bearing frame elements are usually attached to the wall load-bearing structure using 24. - screw plug Ø10x80mm. As regards the lathing fastening element 24. - the screw plug type is selected depending on the necessary fastening integration depth in the load-bearing wall structure, types of loads and requirements of the technological process of the integration of finishing material. The technology of integrating screw plugs is determined by the manufacturer depending on the properties of the material of the load-bearing structure.
- If the structure might be subject to impact load (e.g., load from a ball striking), separate load bearing capacity calculations must be done.
- If exterior walls must be additionally heat-insulated from the inside, by filling the frame with mineral wool, a vapour barrier must be set up under the CEWOOD panels.

Explanation of sizing:

Vm – the mounting lath step along the vertical line (variable).

Vn – the mounting lath step along the vertical line (constant).

Hm – the load-bearing lath step along the horizontal line (variable).

Hn – the load-bearing lath step along the horizontal line (constant).

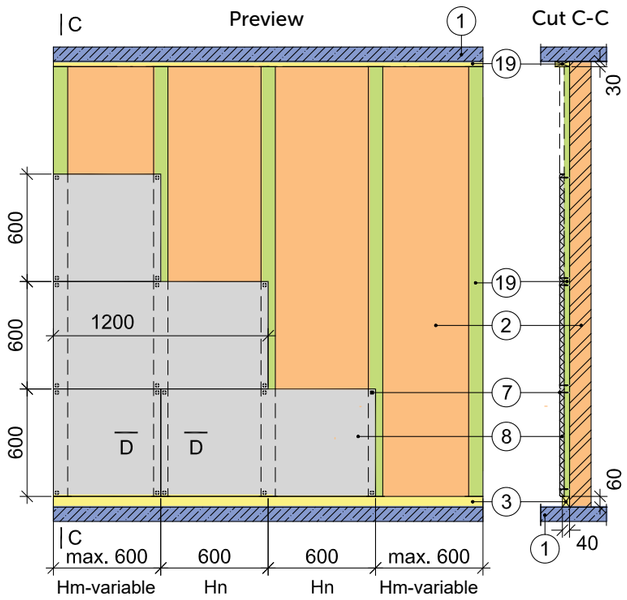
Lm – the step of the lathing fastening element along the vertical line (variable).

Ln – the step of the lathing fastening element along the vertical line (variable).

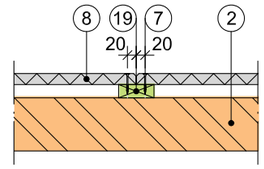
Wood lathing construction

The frame structure is constructed of horizontally or vertically arranged planks sized 80x30 mm. This structure can be used if it is not necessary to level out the vertical or horizontal planes of a wall or to set up substantial extra sound and heat insulation.

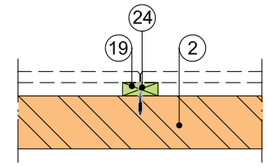
Vertical wood lathing fastening on to a load-bearing wall structure.



Section D-D



Wood lathing fastening on to a load-bearing wall structure



Explanation of numbering:

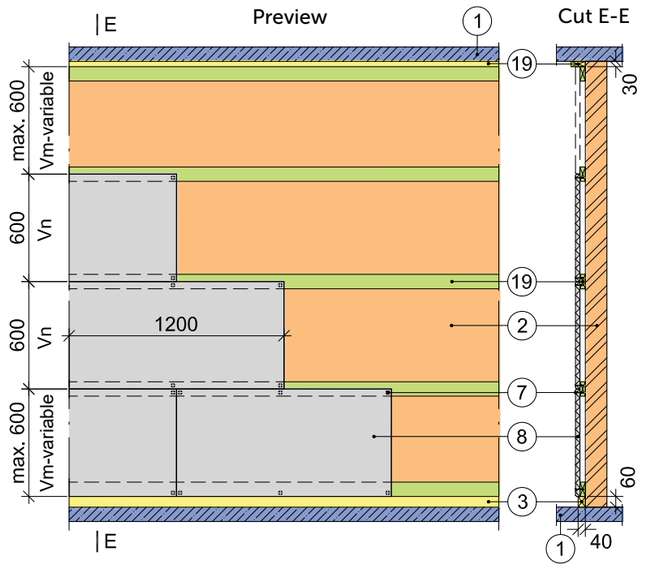
1. Load-bearing slab or foundation structure.
2. Wall structure.
3. Crown lathing 40x60 (h).
7. Wood screw
8. CEWOOD Acoustic panels.
19. Wood lath 30x80 (h) (max. 50x100).
24. Lathing fastening screw plug, step 0.8–1.0 m.

Vertical wood lathing fastening on to a load-bearing wall structure.
Approximate consumption for 10 m^2 (2500x4000 mm) wall cladding.

Nr.	Denomination	Fastening element	Unit	Quantitu for 10m^2 wall (*)
1.	3; 19	Crown lathing 60x40 Wood lath 30x80	m^3	0.06
2.	24	Lathing fastening screw plug 8x80)*	pc	40
3.	8	CEWOOD panels	m^2	10
4.	7	CEWOOD panel screws	pc	90
5.		Labor costs	h	10

All calculations in the table are approximate and without residues
(*) 2500x5000 mm wall usded for calculations
)* Size and type according to load-bearing wall structure.

Horizontal wood lathing fastening on to a load-bearing wall structure.



Explanation of numbering:

1. Load-bearing slab or foundation structure.
2. Wall structure.
3. Crown lathing 40x60 (h).
7. Wood screw
8. CEWOOD Acoustic panels.
19. Wood lath 30x80 (h) (max. 50x100).
24. Lathing fastening screw plug, step 0.8–1.0 m.

Horizontal wood lathing fastening on to a load-bearing wall structure.
Approximate consumption for 10 m² (2500x4000 mm) wall cladding.

Nr.	Denomination	Fastening element	Unit	Quantitu for 10m² wall (*)
1.	3; 19	Crown lathing 60x40 Wood lath 30x80	m^3	0.07
2.	24	Lathing fastening screw plug 8x80)*	pc	42
3.	8	CEWOOD panels	m^2	10
4.	7	CEWOOD panel screws	pc	90
5.		Labor costs	h	11
All calculations in the table are approximate and without residues (*) 2500x5000 mm wall usded for calculations)* Size and type according to load-bearing wall structure.				

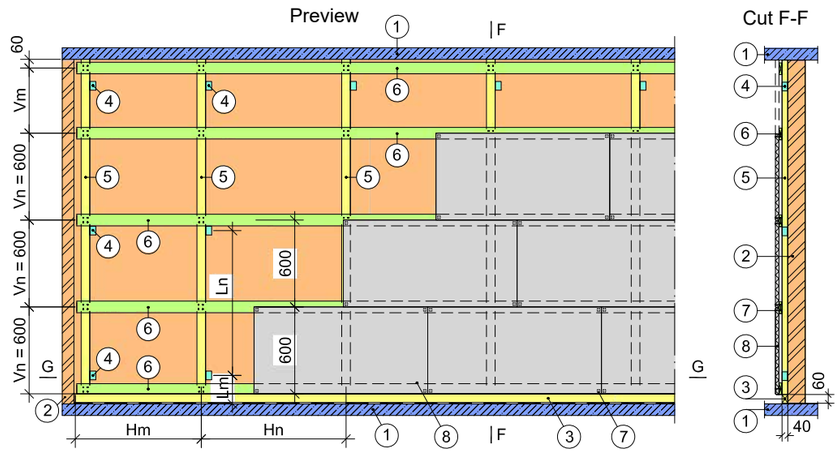
CEWOOD panel thickness	25	35	50
Step between load-bearing laths (variable) Hm mm	≤ 600	≤ 600	≤ 600
Step between load-bearing laths (fixed) Hn mm	600	600	600
Step between mounting laths (variable) Vm mm	≤ 600	≤ 600	≤ 600
Step between mounting laths (fixed) Vn mm	600	600	600

Note. With higher loads, the step between the lathing fastening elements must be accordingly reduced.

Double wood lathing construction

The double frame can be chosen if it is necessary to straighten the wall plane deviations or to create additional sound or heat insulation

Double wood lathing frame. Interior wall finishing with CEWOOD Acoustic-finishing panels.



Explanation of numbering:

1. Load-bearing slab or foundation structure.
2. Wall structure.
3. Crown lathing 40x60 (h).
4. Load-bearing lath fastening angle L40x60x1.5.
5. Wooden rectangular timber 50x80.
6. Mounting lath 21x80 (h) mm. Step = 600 mm.
7. Wood screw
8. CEWOOD Acoustic panels.

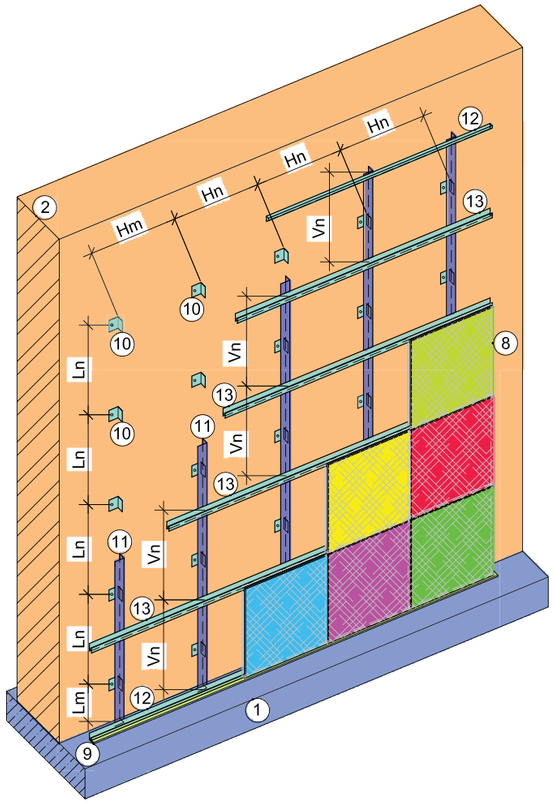
CEWOOD panel thickness	25	35	50
Step between load-bearing laths Hm mm	≤ 1000	≤ 800	≤ 600
Step between load-bearing laths Hn mm	≤ 1000	≤ 800	≤ 600
Step between mounting laths Vm mm	≤ 600	≤ 600	≤ 600
Step between mounting laths (fixed) Vn mm	600	600	600
Step between fastening elements Lm mm	≤ 250	≤ 250	≤ 250
Step between fastening elements Ln mm	≤ 1200	≤ 1000	≤ 800

Note. The building project must take into account the bearing capacity of the specific wall and the used screw plugs, accordingly specifying the sizes provided in the table.

Panel fastening on metal profile construction

CEWOOD panels are fastened on to a metal profile frame using a special, horizontally arranged profile (pos. 12 and 13), which is fixed on to the load-bearing profile (pos. 11).

Assembly scheme of fastening profiles



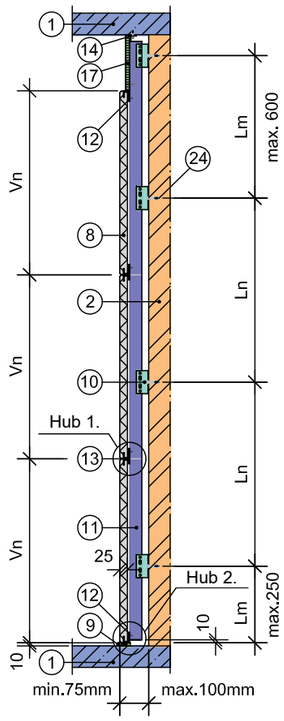
Explanation of numbering:

1. Load-bearing slab or foundation structure.
2. Wall structure.
4. Load-bearing lath fastening angle L40x60x1.5.
5. Wooden rectangular timber 50x80.
7. Wood screw
8. CEWOOD Acoustic panels.
9. Levelling lath 21 (h)x40 mm.
10. Load-bearing profile fastening angle L40x60x1.5.
11. Load-bearing profile L60/40/1.8 mm.
12. Perimeter profile (horizontal).
13. Assembly profile.
14. Perimeter angle 21/21.
15. CD-profile 60/27/0.6.
16. U-type clamp/U-type clamp fastening wood screw 4.5x45
17. Plasterboard panel 12.5 mm.
18. Quick construction screw.
22. Impact sound insulating support, e.g. Isolgamma 15 mm
23. Mineral wool.
24. Lathing fastening screw plug, step 0.8–1.0 m.

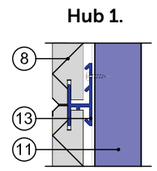
CEWOOD panel thickness	25	35	50
Step between load-bearing laths Hm mm	≤ 1000	≤ 800	≤ 600
Step between load-bearing laths Hn mm	≤ 1000	≤ 800	≤ 600
Step between mounting laths (fixed) Vn mm	600	600	600
Step between fastening elements Lm mm	≤ 250	≤ 250	≤ 250
Step between fastening elements Ln mm	≤ 1200	≤ 1000	≤ 800

Note. The building project must take into account the bearing capacity of the specific wall and the used screw plugs, accordingly specifying the sizes provided in the table.

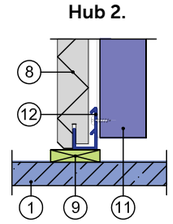
Vertical lateral view of the wall



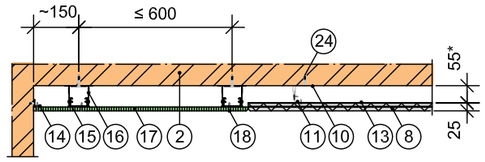
Hub 1.



Hub 2.

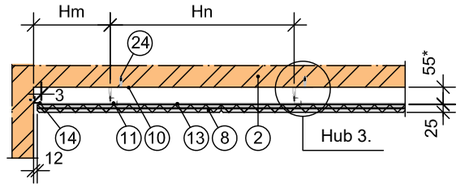


A horizontal superior view of the corner finishing solution with a plasterboard frame.



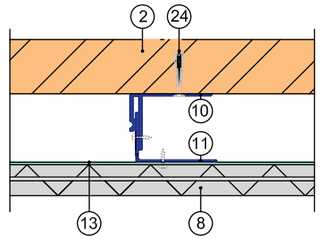
Note: The perimeter plasterboard mill is intended for design purposes in order to highlight CEWOOD panel.

A horizontal superior view of the corner finishing solution with a shadow joint.

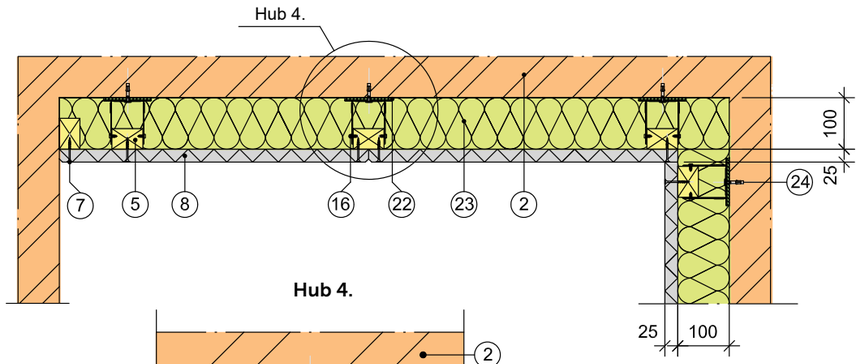


Hub 3.

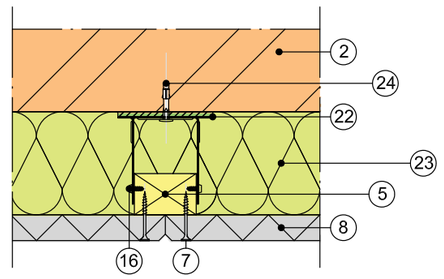
Spacer with variable distance from the wall.



Fastening with a moving support



Hub 4.



Fastening with a moving support and impact noise insulating base (pos. 22).
The structure allows levelling out the existing wall and ensures impact noise insulation.

Panel fastening, storage and care

Before installing

Instructions for storage and preparation of CEWOOD panels before installing. For more detailed information see **cewood.com** or contact our technical department.

Primary inspection

Upon delivery, check the panels for accordance with the order and for any visible defects. If you find any inadequacy, immediately contact the producer or vendor as the defects reported after installing don't meet the warranty.

Storage conditions

CEWOOD Decorative / Acoustic panels for indoor use are made from high-quality wood wool and cement. The fireproof material has great acoustic and thermal insulation capacities, and is perfectly suitable for the widest range of interior solutions.

The panels maintain their properties at the temperature +23 (+/- 2) °C and the relative humidity of 50% (+/- 5%). To ensure the best properties, the panels should be allowed to adopt the ambient conditions. The optimal period for acclimatization is one to two weeks. 1. 2.

If stored outdoors, the panels can be protected with a cover of tarpaulin or similar material. The material should not be kept outdoors for long periods of time, it should definitely not be stored directly on the ground. 3.

When storing the panels indoors, the packaging material should be removed to avoid accumulation of condensation and to ensure better acclimatisation. It is recommended not to expose the material to direct heat, humidity and dust.

Before installing the panels should be stored horizontally, on a flat and stable foundation, as palettes or a platform. 4.

Best conditions for acclimatization are achieved if the material is kept in layers, seperated with slats. The material has very good physical indicators, it maintains the same humidity and temperature, as the surrounding environment, for example wooden floors.

It is not recommended to start installing of the panels before the construction works are finished or just before starting of the heating system. 5.
The panels have undergone a full drying cycle during the production process, but there can be accumulation of humidity during the transportation and storing, so there should be an acclimatization period to assure the best resistance. Yet the environmentally caused mass fluctuations of the material cannot cause it to expand or shrink, and do not influence the other parts of the building.

After installing

Instructions for care and maintenance of CEWOOD panels after installing. For more detailed information see **cewood.com** or contact our technical department.

Few weeks after finishing installing the panels small dust particels may be present, due to the mounting process. To get rid of the dust use a vacuum cleaner with a brush nozzle. 1.

If the panels are dirty or abraded during the installation, clean the surface with a damp cloth. In case the mounting works have caused surface defects, process the panel with a fine sandpaper. 2. 3.

If necessary, the colouring of the decorative/acoustic panels can be restored with a spray paint. Choose the corresponding colour and make sure to shake the spay can for about a minute before spraying. 4.

Operation and maintenance

Once installed, the CEWOOD panels do not require any additional maintenance. The surface cleaning can be done together with the general cleaning of the premises.

General cleaning is easy and can be carried out with a vacuum cleaner with a brash nozzle. If additional cleaning is needed, use a damp cloth. 5. 6.
The colouring can be refreshed using a spray paint or a roller with long bristles. Applying water-based colour does not affect the the sound absorbtion properties of the panels. 7. 8.

CEWOOD Decorative / Acoustic panels for indoor use are made from high-quality wood wool and cement. The fireproof material has great acoustic and thermal insulation capacities, and is perfectly suitable for the widest range of interior solutions.

The CEWOOD panels have a long work-life, up to 100 years. The robust and durable material does not change when exposed to himidity, the panels are mold-salfe and vermin-free.

Due to the contained cement the panels retain their shape and do not change under humidity, but the wood wool-made body ensures easy and convenient handling and mounting.

Acoustic panel screw

TRABO FH 4.65 X L #1S TX20

- TX20 recess
- Drill point #1S with a drill capactity of 2 x 0.5 - 2 x 1.0 mm
- Length measured from under the head to the tip of the screw
- Ø4.65 outer thread diameter
- Flat head
- Name of head type

TX recess | Hardened steel

Product range

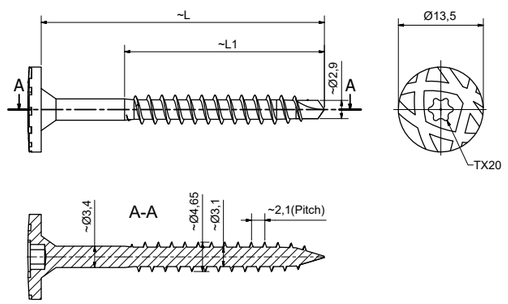
Art.no.	Item name	Thread [mm]	Length L [mm]	Shaft [mm]	Drill point	Drill cap. [mm]	Head [mm]	Unit
17770	TRABO FH 4.65 X 45 #1S TX20	Ø4.65	45	12	#1S	0.5 - 1.5	Ø13.5 TX20	250

Advantages

- Suitable for fastening of acoustic panels to steel or wood
- Large head for better load distribution
- Specially designed pattern on the head for better concealing
- Surface treated with ZYTEC™ GX for optimal corrosion protection
- Available in more than 500 colours (Qualicoat certified facade quality powder)

Product data

Technical data	
Head:	Ø13.8 mm flat head with TX20 recess
Diameter:	Ø4.65 mm
Shaft:	12 mm
Drill point:	#1S
Drill capacity:	0.5 - 1.5 mm (Steel S280GD)
Material:	Hardened steel
Surface treatment:	ZYTEC™ GX
Corrosivity category:	C3 (high) according to EN ISO 12944-2



Design resistance

The design resistance of the screw is determined in accordance with EN 1993-1-3:2006 + AC:2009 and EN 1995-1-1:2004 + AC:2006 + A1:2008 + A2:2014.

The resistance when loaded in tension, N_{Rd}, appears from the table on the right and is the minimum value of the pull-out resistance of the supporting object and the tension resistance of the screw. Thus, the pull-through resistance of the fixed object is not taken into account.

The theoretical values must be considered indicative since the conditions of the construction site may vary. Practical tests of the specific application are recommended for verification of the listed values.

Assumptions:

Fixed object: Steel S280GD - EN 10346
Supporting object: Steel S280GD - EN 10346
Supporting object: Structural wood, C24
Density, ρ_k = 350 kg/m^3
Withdrawal parameter, $f_{ax,k}$ = 11 N/mm^2

L = Length of the screw [mm]
t_I = Thickness of the fixed object [mm]
t_{II} = Thickness of the supporting object [mm]

All resistances are stated in kN (1 kN ≈ 100 kg)
Safety factor: γ_M = 1.35, k_{mod} = 0.90

Design resistance when loaded in tension, N_{Rd} [kN] - Steel support	
t_{II} \ L	45
0.50	0.28
0.63	0.35
0.75	0.42
0.88	0.49
1.00	0.56
1.25	0.70
1.50	0.84

Design resistance when loaded in tension, N_{Rd} [kN] - Wooden support	
t_I \ L	45
5	1.00
10	1.00
15	0.91
20	0.74
25	0.57

Logistics

CEWOOD products are exported to many countries on all continents. Our logistics specialists organise accurate deliveries of orders at the destination, using both land and marine shipments.

Driving distance

Loading capacities

Marine container

Max. weight limit – 24t, standard pallet size 1200x600mm
15 mm panels – 56 pallets, 2903m²
25 mm panels – 56 pallets, 1730m²
35 mm panels – 56 pallets, 1250m²
50 mm panels – 56 pallets, 850m²
25 mm A2 fire class panels – 56 pallets, 1613m²

Truck

Max. weight limit – 24t, standard pallet size 1200x1200 or 2400x600mm
15 mm panels – 32 pallets, 3200 m² +/-5%
25 mm panels – 38 pallets, 2188,8m² +/-5%
35 mm panels – 38 pallets, 1641,1m² +/-5%
50 mm panels – 40 pallets, 1152m² +/-5%
25 mm A2 fire class panels – 29 pallets, 1670m² +/-5%

Certificates

Declaration of Performance (DoP)

The Declaration of performance (or DoP) is an official declaration of the product's performance in terms of its essential product characteristics with identifying information about who placed the product in the European market.
Certification according to standard EN 13168-2012+A1:2015

CE marking

CE marking is a certification mark that indicates conformity with health, safety, and environmental protection standards for products sold within the European Economic Area (EEA).
LVS EN 13168-2012+A1:2015.

Emission classification of building materials (M1)

Emission classification of building materials refers to indoor air quality standards for materials used in regular work and residential facilities. The classification applies to individual companies and products, and applying for it is voluntary.

PEFC™

The Programme for the Endorsement of Forest Certification (PEFC) is an international, non-profit, non-governmental organization which promotes sustainable forest management through independent third party certification.
SIA CEWOOD has been audited and found to meet the requirements of standard PEFC ST 2002:2013

Certificate of constancy of performance (Kiwa)

Kiwa NV is a European institution for testing, inspection and certification (TIC). Kiwa participates in the safety analysis of many new European and international technologies, as well as the drafting of safety standards for numerous devices and components.
Certificate of constancy of performance. No. 1325-CPR-3363A.

Fire resistance test report (ISIB)

ISIB Institute for Fire safety (Instituut voor Brandveiligheid – Institut de Sécurité Incendie) is a non-profit organisation aiming to promote scientific research in the field of fire safety and to coordinate this research within the fire testing laboratories of the Universities of Ghent and Liège. ISIB acts as an independent certification body for products in the field of building products whose passive fire safety performances constitute the primary demands.

POWERED BY GREEN

POWERED BY GREEN certificate certifies that the company buys electricity generated from 100% renewable sources in Latvia and that by 1 April of the following year AS "Latvenergo" will deliver to the company a Guarantee of Origin for electricity actually consumed during the previous year in accordance with the Cabinet of Ministers regulations on receiving the guarantee of origin for electricity generated from renewable energy sources.

ISO

ISO 50001 is the international standard for Energy Management Systems, created by the International Organization for Standardization (ISO). The standard specifies the requirements for establishing, implementing, maintaining and improving an energy management system, whose purpose is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy security, energy use and consumption.
Standard: LVS EN ISO 50001:2012

NaturePlus Certificate

NaturePlus is an internationally renowned certification for the sustainability of building materials and the compliance of their quality to health, environmental protection and functionality requirements. The NaturePlus quality sign confirms the compliance of CEWOOD panels to these high requirements, as well as the company's understanding of the health safety of the material, environmentally friendly production and protection of natural resources during all material production stages.

Recommended by the Latvian Allergy and Asthma Association.

The Latvian Allergy and Asthma Association recommends CEWOOD panels as a product that does not contain any harmful substances, is anti-allergic and safe to health.

MATERIAL FOR COMFORT AND HEALTH

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