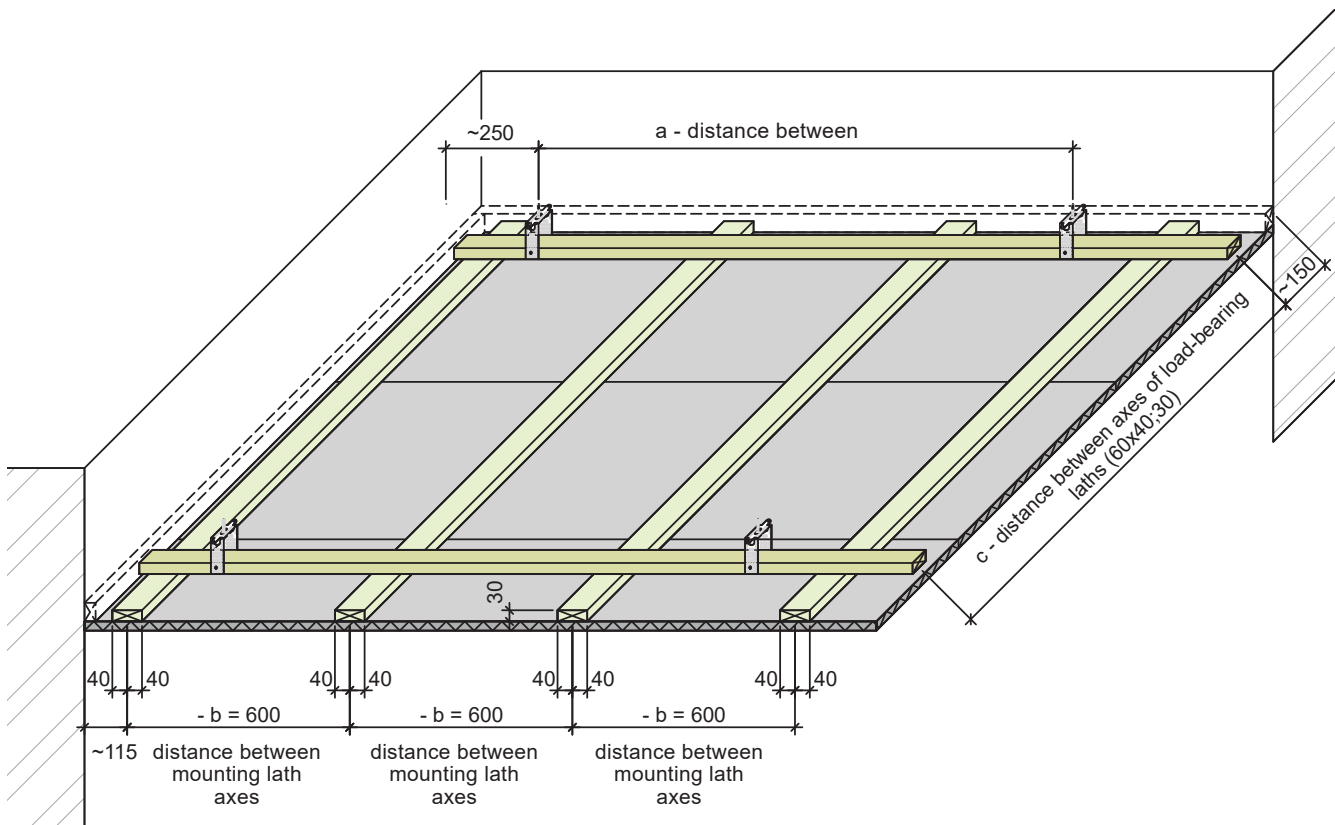


4.1. FASTENING ON WOOD LATHS

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.

Fig. 4.1.1



Tab. 4.1.1 Mounting distances of frame lathing

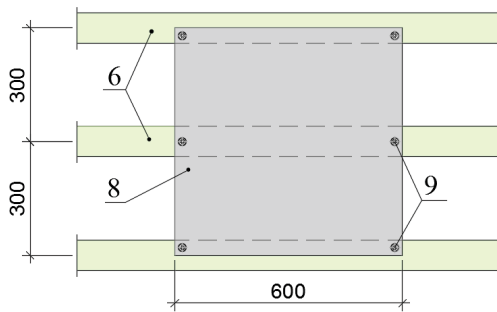
Load-bearing lath, cross section 60/40 or 60/30	Mounting lath, cross section 80/30	a - suspension distances/fastenings Load class kN/m ²		
		up to 0.15	up to 0.30	up to 0.50
distance between axes – c - mm	distance between axes – b - mm			
600	600	1150	900	750
900	600	1000	800	
1000	600	950		
1200	600	900		

Must use suspensions with load resistance of 0.40 kN

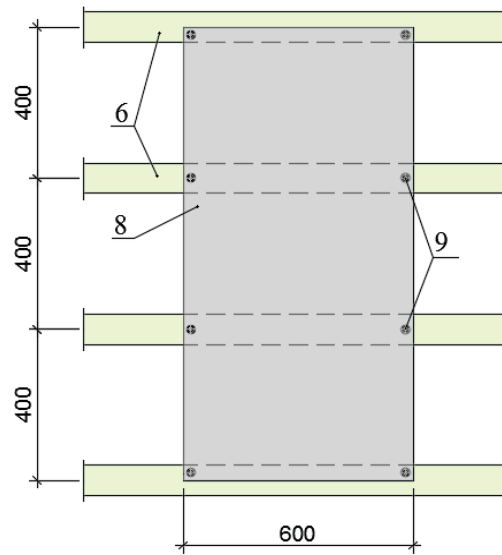
Assume load-bearing lath cross section of 60x40 mm or 60x30 mm depending on calculated loads and the used type of fastenings.

Standart screw pattern for CEWOOD acoustic panels

Fig. 4.1.2 Fastening of 15 mm CEWOOD acoustic panels with screws on wood laths 80x30 (h)

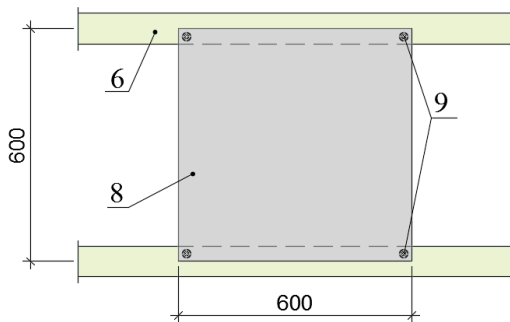


Panel 600x600 fixation with 6 screws.

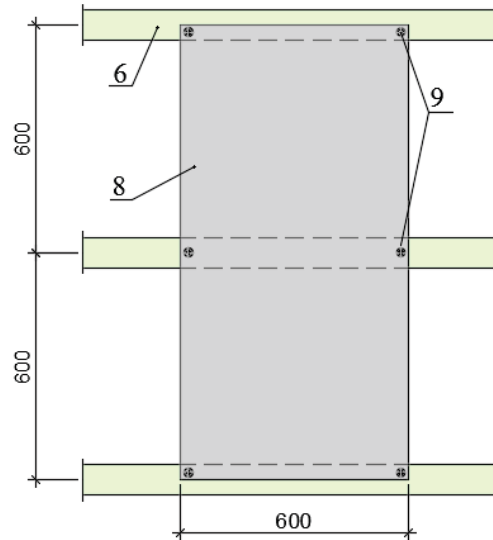


Panel 600x1200 fixation with 8 screws.

Fig. 4.1.3 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 6 screws.

Tab. 4.1.2 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

Fig. 4.1.4. Fastening of impact-resistant CEWOOD acoustic panel ceilings with screws, maximum step 315 mm (e.g., in fitness halls).

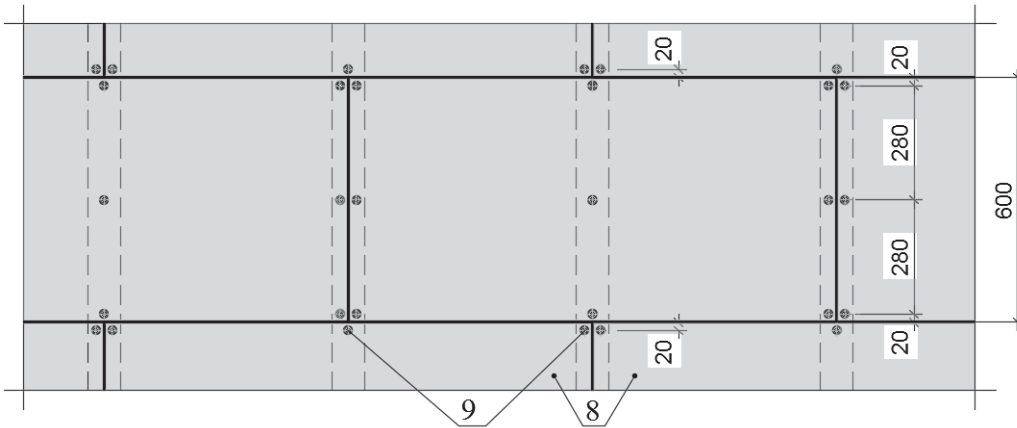
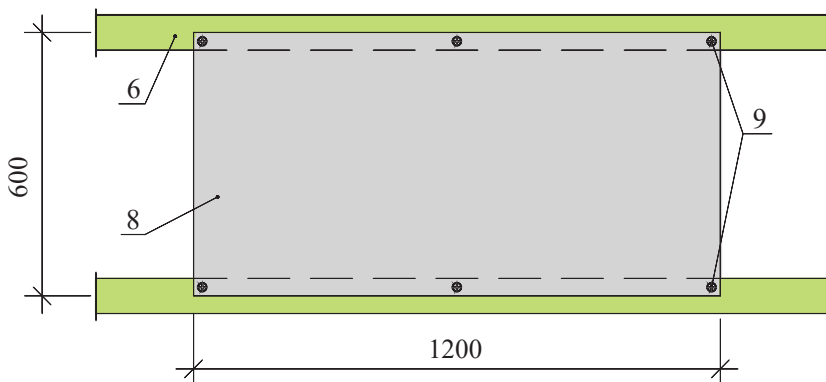
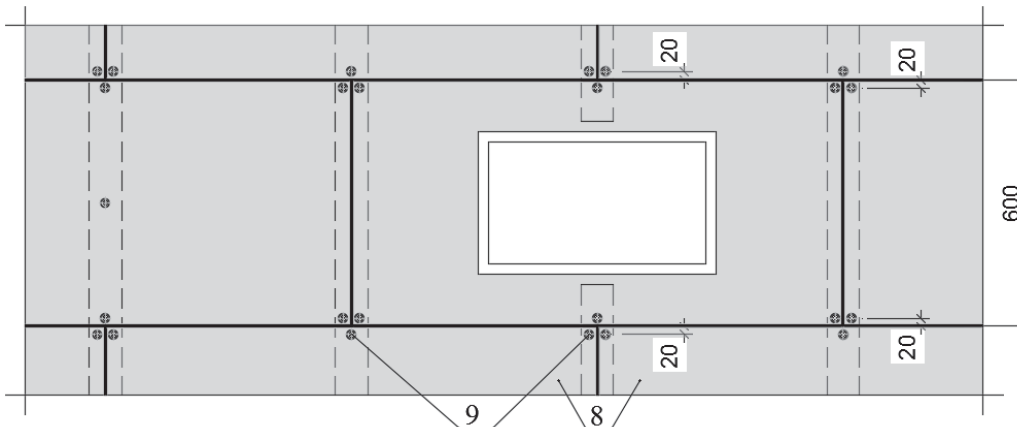


Fig. 4.1.5 CEWOOD acoustic panel ceiling – installation of maintenance openings



Panel 600x1200 fastening with 6 screws longitudinally on laths

Fig. 4.1.6 Fastening of CEWOOD panels onto a mounting lath 80x30 (h) mm

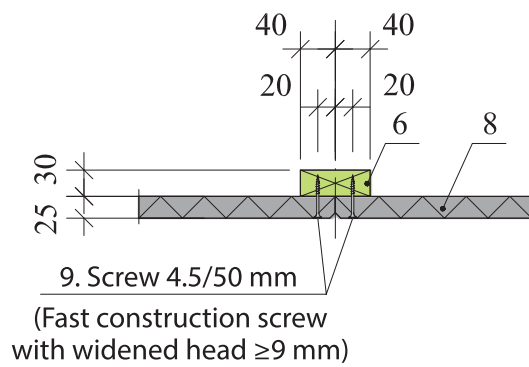
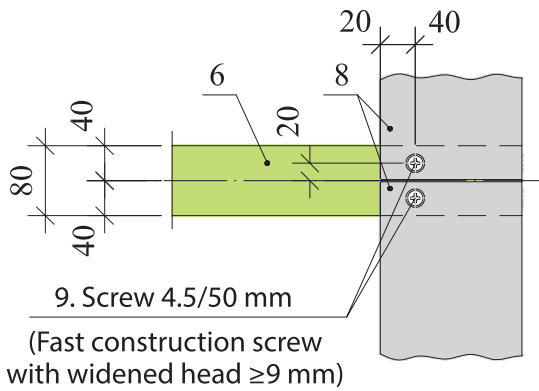
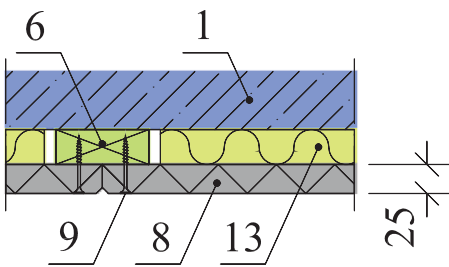


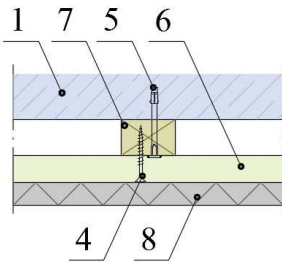
Fig. 4.1.7 Fastening of a mounting lath onto a load-bearing lath



Mounting laths 80x30 (h) mm are fastened directly onto the load-bearing structure with 4.5x60 mm screws – 2 pcs. at the connection point.

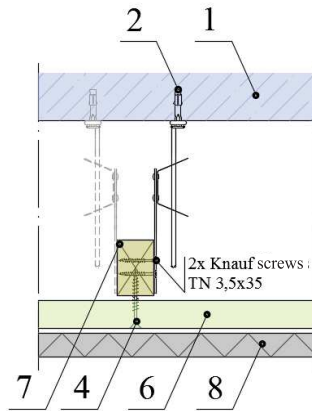
Fig. 4.1.8 Fastening of load-bearing laths 60x40 or 60x30mm onto the load-bearing slab structure.

Direct fixation



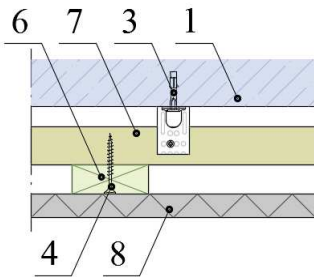
Connection of longitudinal edges.

With quick suspension



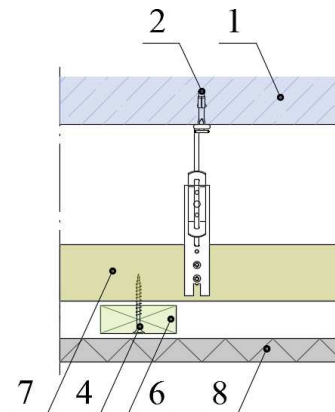
Connection of longitudinal edges, by changing the fastening side (alternating fastening).

U-type clamp

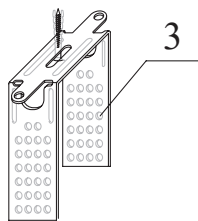


Connection of end edges, U-type clamp 0.40 kN.

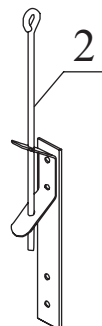
With quick suspension



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



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



No. 2. Quick suspension for wooden frame structure 0.25 kN (estimated load-carrying capacity $0.25 \times 0.6 = 0.15$ kN).

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

Fig. 4.1.9 Acoustic panel ceiling (fastening with quick suspension).

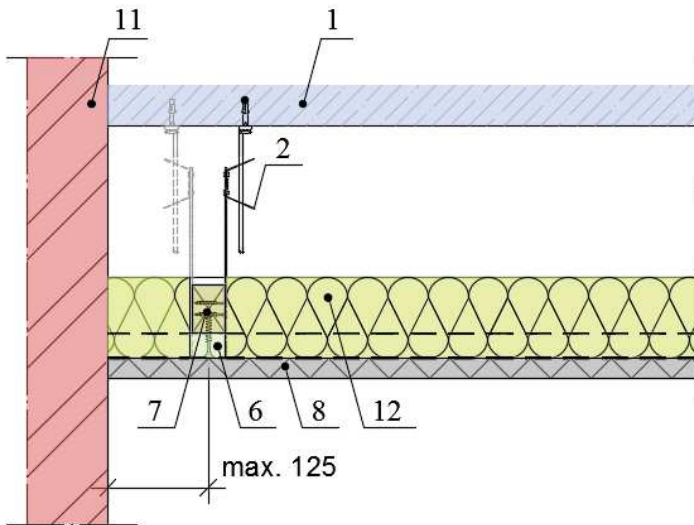
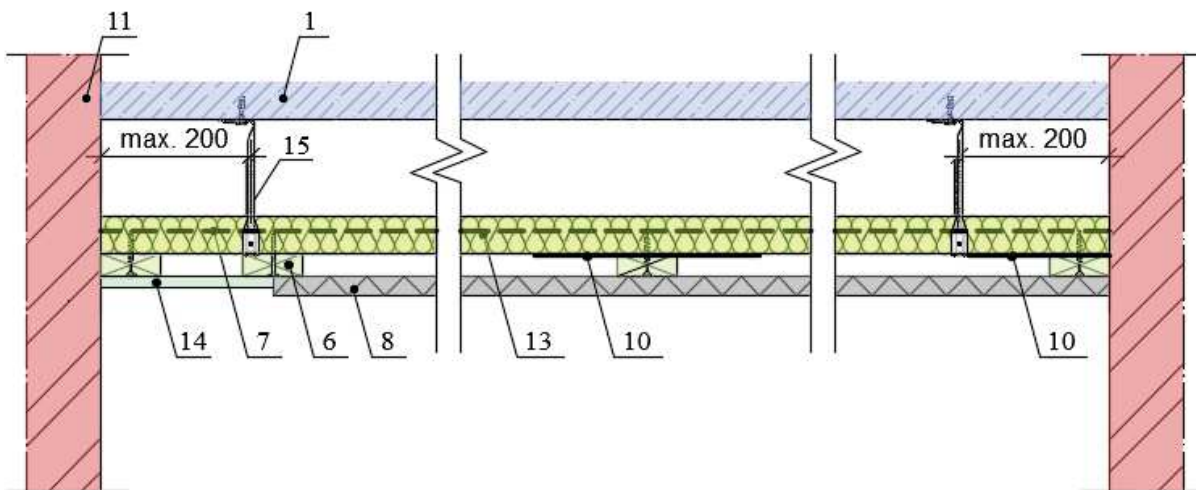


Fig. 4.1.10 Acoustic panel ceiling (fastening with Nonius suspension 0.40 kN, maximum mounting step 900 mm).



Explanation of numbering:

1. Load-bearing slab structure.
2. Quick suspension 0.15 kN.
3. U-type clamp 0.40 kN.
4. Knauf screw 4.5x60.
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 decorative and acoustic panels.
9. Quick construct screw 4.5x50 mm with wider head Ø12 mm.
10. Metal sheet 300/30/0.8, step 400 mm.
11. Existing wall structure.
12. Mineral wool 30 kg/m³, thickness ≥ 80 mm.
13. Mineral wool 90 kg/m³, thickness 50 mm.
14. Plasterboard Knauf GFK-A2, thickness 15 mm.
15. Nonius suspension 0.40 kN.