

# akustik+ furniture



Furniture components can also be integrated into the overall room acoustic concept. When design or building physics criteria the implementation of classical wall and ceiling claddings create problems, acoustically effective furniture fronts or back boards provide additional possibilities to plan sound-absorbing surfaces.

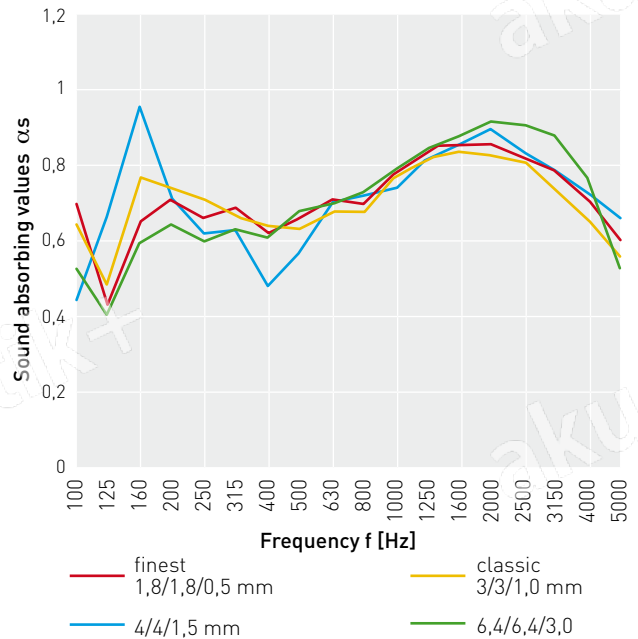
A variety of core/substrate materials, surfaces, perforations and slits are used for this purpose selection.

To improve the room acoustics in existing rooms, it is also possible to replace existing doors or rear walls with acoustically effective furniture components.

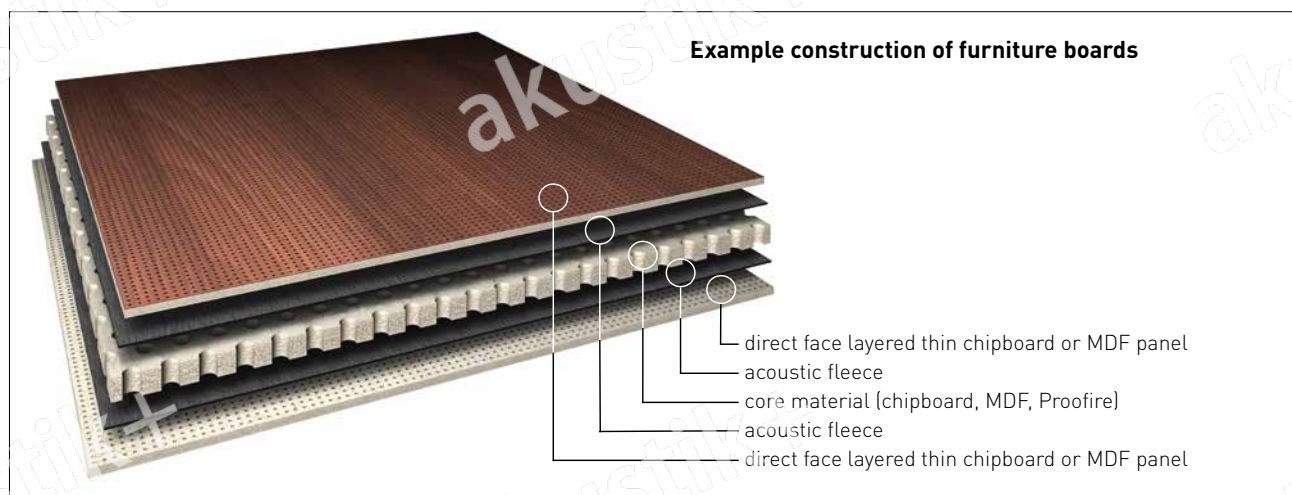
# akustik



Sound absorbing values				
Perforation	finest 1,8/1,8/0,5 mm	classic 3/3/1,0 mm	4/4/1,5 mm	6,4/6,4/3,0 mm
Overall Structure	419 mm	419 mm	419 mm	419 mm
Cavity	400 mm	400 mm	400 mm	400 mm
Mineral Wool	without	without	without	without
Panel Thickness	19 mm	19 mm	19 mm	19 mm
Frequency [Hz]	$\alpha_s$	$\alpha_s$	$\alpha_s$	$\alpha_s$
100	0,70	0,65	0,44	0,53
125	0,43	0,48	0,67	0,40
160	0,65	0,77	0,96	0,60
200	0,71	0,74	0,71	0,64
250	0,66	0,71	0,62	0,60
315	0,69	0,67	0,63	0,63
400	0,62	0,64	0,48	0,61
500	0,66	0,63	0,57	0,68
630	0,71	0,68	0,70	0,70
800	0,70	0,68	0,72	0,73
1.000	0,78	0,77	0,74	0,79
1.250	0,85	0,82	0,82	0,85
1.600	0,86	0,84	0,86	0,88
2.000	0,86	0,83	0,90	0,92
2.500	0,82	0,81	0,84	0,91
3.150	0,79	0,73	0,79	0,88
4.000	0,71	0,66	0,73	0,77
5.000	0,61	0,56	0,66	0,53
$\alpha_w$	<b>0,75</b>	<b>0,75</b>	<b>0,73</b>	<b>0,75</b>
NRC	<b>0,75</b>	<b>0,74</b>	<b>0,71</b>	<b>0,74</b>
SAA	<b>0,74</b>	<b>0,74</b>	<b>0,72</b>	<b>0,75</b>
Absorption Class	<b>C</b>	<b>C</b>	<b>C</b>	<b>B</b>



The sound test and measurement was done and evaluated in September 2015 according DIN EN ISO 354 „Measurement of sound absorption in a reverberation room“ 11/2009 and 01/2011 edition.

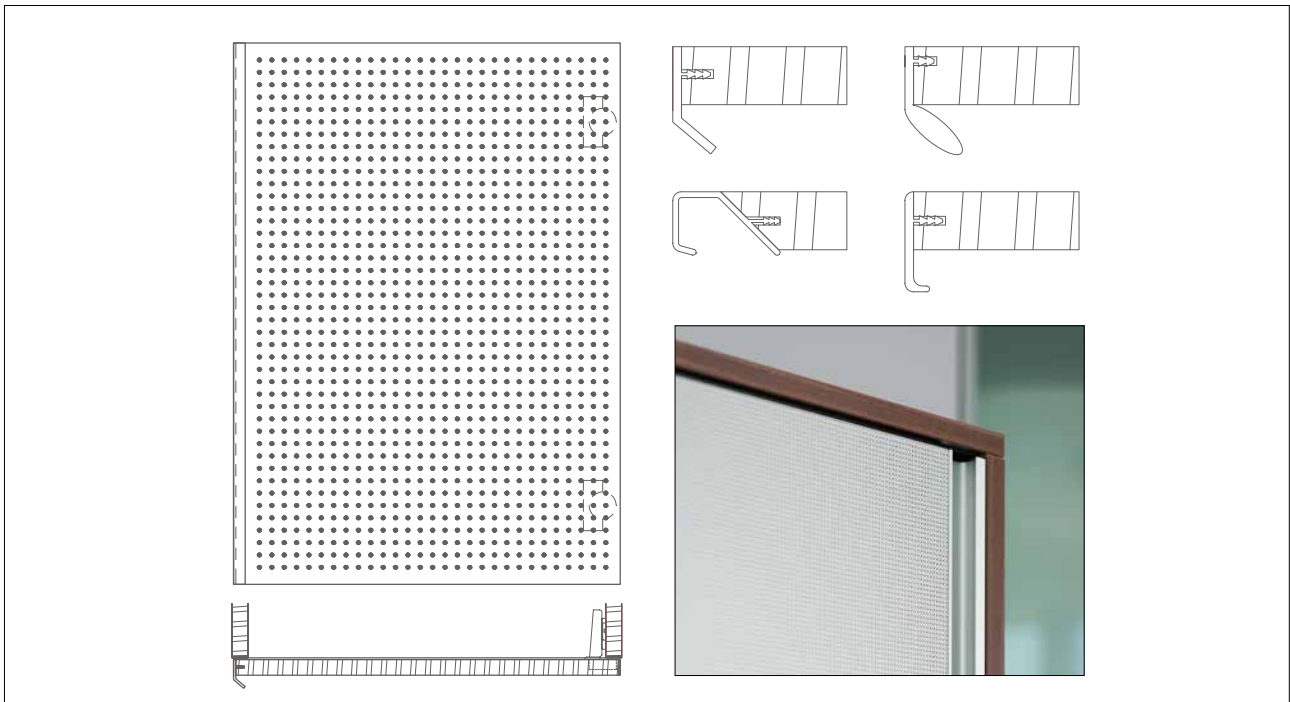


Other design variants are available. For example, the sliding doors are suitable for one-sided decorative fronts, A symmetrical structure must also be considered here.

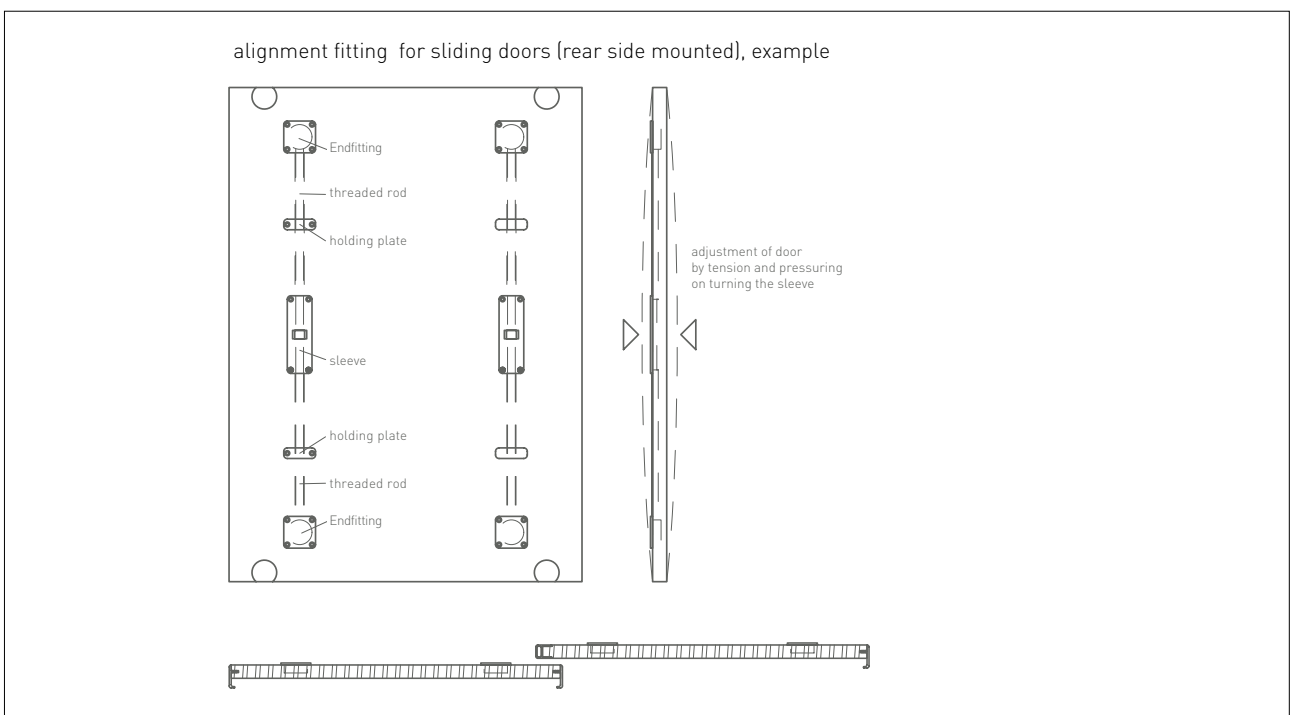
**Installation recommendations**

In the area of furniture components, individual solutions are required, since a wide range of dimensions, individualized constructions and fittings, as well as technical features must be observed. On movable furniture components such as turning and sliding doors, in dependence of room climate conditions and material dimensions, changes of part dimensions or twist or distortion can appear. The use of continuous handle bars and / or alignment fittings is minimizing or correct this.

**Example 1: turning door with continuous handle bar**



**Example 2: sliding door with alignment fitting (recommended from dimensions > 700mm)**







cabinet with slotted front doors



absorbing desk partitions



furniture fronts with individual perforation (akustography)



turnable desk screens on conference tables



sideboard with perforated sliding doors



complex designed cabinet wall/room solution with absorbing fronts



real wood veneered cabinet door with elegant grip groove/handle groove