Acoustics –
simply hung on the wall

OWAcoustic®

Broad band and low frequency absorbers

OWAcoustic® premium

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Wall to wall optimum acoustics

Acoustic elements in creative formats

Good acoustic conditions contribute to quality of life, creating an agreeable work environment and aiding communication. This is applicable to all areas – including private residences. If living or working areas do not have sufficient absorption communication becomes arduous.

Optimisation in the horizontal acoustic field
A product from OWA that optimises room acoustics: OWAcoustic® premium broad band and low frequency absorbers. They are 'stand alone' acoustic units which allow you to adjust the acoustic requirements of an area – both in broad band and low frequencies.
This development supplements our large range of acoustic ceilings by introducing the addition of acoustic correction in the horizontal level.

A good example of beneficial use is in buildings with plastered concrete slab soffits with integrated cooling and heat management systems. In such situations acoustic ceilings cannot be installed full flat but it is a simple task to install wall absorbers.

Installation: Always on the wall
Wall installation is no more difficult than hanging a picture. Wall hung units can position where it is acoustically effective. You can create your own format and designs. The acoustic units can be supplied in various sizes and surface designs.

A new design effect:

Acoustic and aesthetic

These elegant acoustic units provide many interesting design options due to the different available surfaces.

- **Perforated aluminium panels with square or round holes and acoustic fleece backing.**
- **OWAcoustic® premium mineral panels with decorative acoustic fleece facings e.g. Creaprinted surface.**
- **HDF / MDF wood-effect panels with or without perforations**
- **Un-perforated aluminium panels**

Optimum acoustics:

Problem solutions for all frequencies

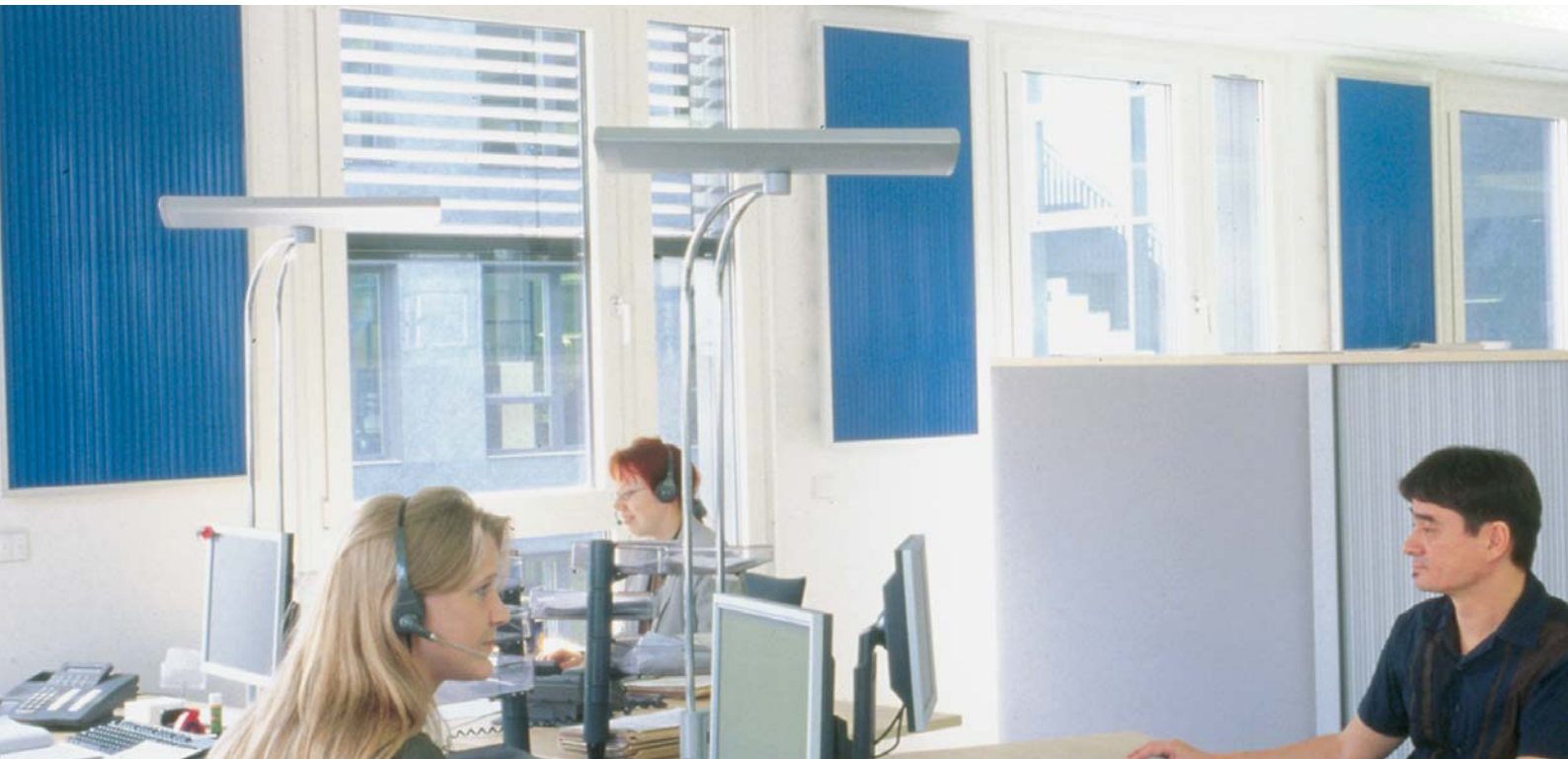
The particular acoustic situation in an area must first be defined by an 'in depth' investigation of the frequency-dependent reverberation times. On this basis we will propose solutions to solve the problem.

Absorbers for all or specifically for low frequencies.

We can offer advice and recommendations for your specific requirements for individual areas that will benefit from the use of wide band or low frequency absorbers and measure the efficiency of the acoustic units illustrated with reverberation time graphs.

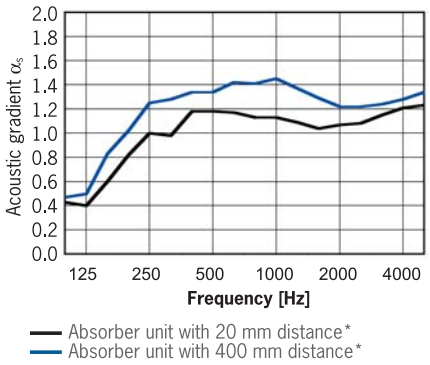
Why use the walls – are ceilings acoustics not good enough?

Yes they usually are, but even in the many cases where areas are equipped solely with an OWAcoustic® premium ceiling, the clear acoustic improvement will be in the vertical area of activity – no surface is better suited for sound-absorbing measures than a flat ceiling.
However, with the additional use of individual absorption surfaces on the wall areas benefits are also gained in the horizontal acoustic field – an important contribution to acoustic optimisation.

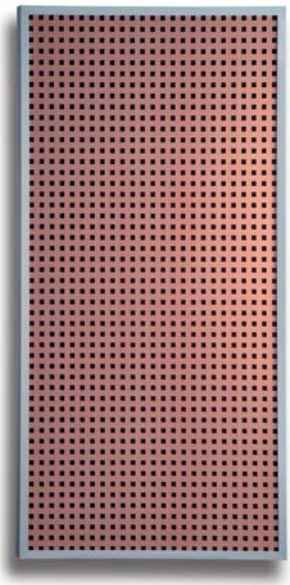


Technical Information

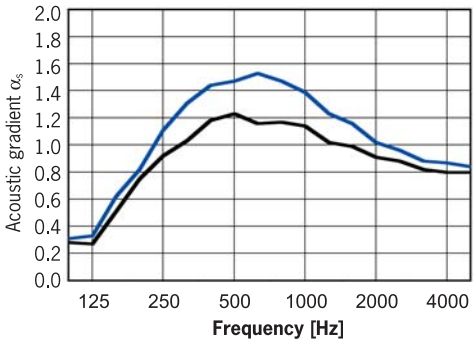
OWAcoustic® premium panel with acoustic fleece and Creaprint

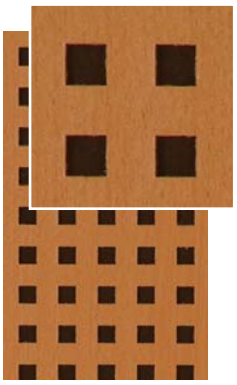


Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
α_s for distance d = 20 mm	0.40	1.00	1.18	1.13	1.07	1.21
α_s for distance d = 400 mm	0.50	1.25	1.34	1.45	1.22	1.28



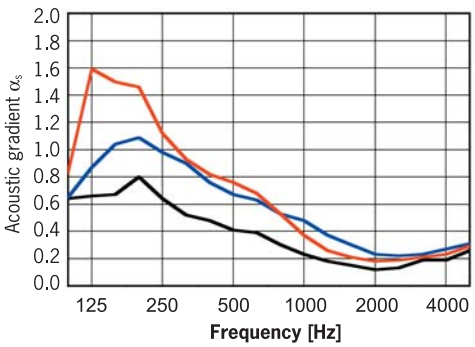
HDF/MDF panel with square holes
SH 10/22.5, 20.7 % open area

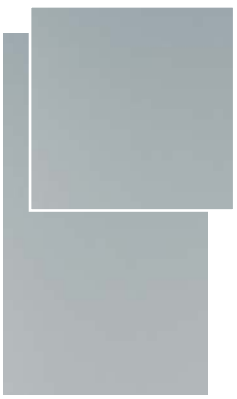




Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
α_s for distance d = 20 mm	0.27	0.92	1.23	1.14	0.91	0.80
α_s for distance d = 400 mm	0.33	1.11	1.47	1.39	1.02	0.87

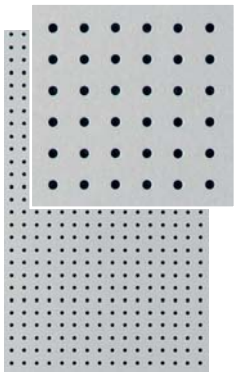
Non perforated aluminium

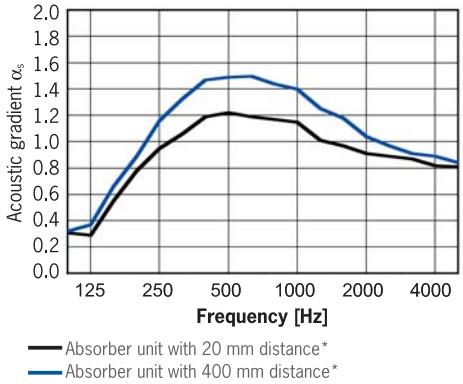


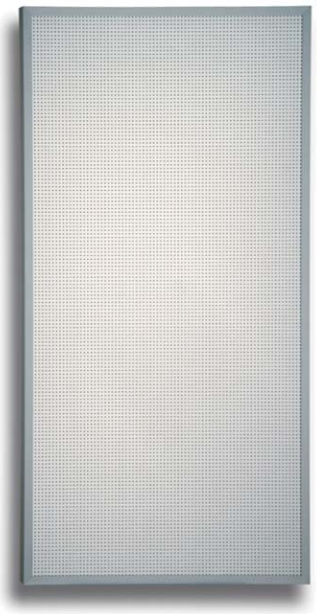


Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
α_s for distance d = 20 mm	0.66	0.64	0.41	0.23	0.12	0.19
α_s for distance d = 400 mm	0.87	0.98	0.67	0.48	0.23	0.27
α_s for room corners	1.59	1.12	0.76	0.37	0.18	0.23

Aluminium panel with round holes RH 2.5/8.0, 7.6 % open area

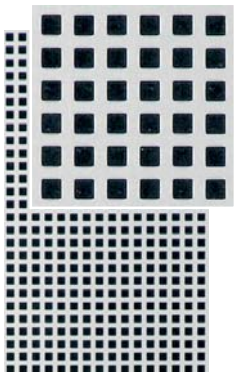


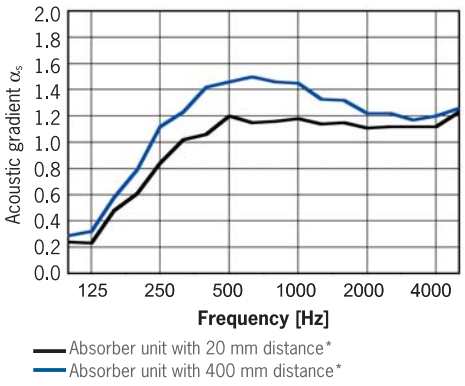


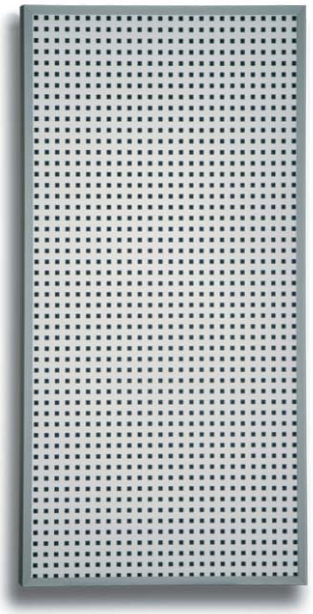


Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
α_s for distance d = 20 mm	0.29	0.95	1.22	1.15	0.91	0.82
α_s for distance d = 400 mm	0.37	1.16	1.49	1.40	1.04	0.89

Aluminium panel with square holes SH 5/8, 39.1 % open area







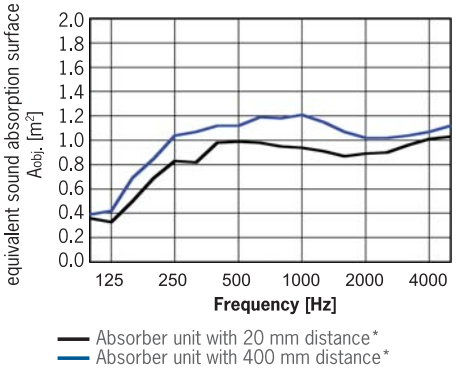
Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
α_s for distance d = 20 mm	0.23	0.84	1.20	1.18	1.11	1.12
α_s for distance d = 400 mm	0.32	1.12	1.46	1.45	1.22	1.20

* In the laboratory test 15 single absorbers (dimensions: 1274 x 649 mm) were used. The absorbers were positioned in 3 rows, 5 absorbers per row, in the middle of the reverberation chamber. The single absorbers laid directly on the bottom of the reverberation chamber during the measuring. All absorber types were tested in two different distances (d = 20 mm and d = 400 mm). These specifications describe the distance between the absorbers to each other. The low frequency absorbers were additionally tested in the corners of the reverberation chamber by spreading the 15 single absorbers on the bottom in the room corners.

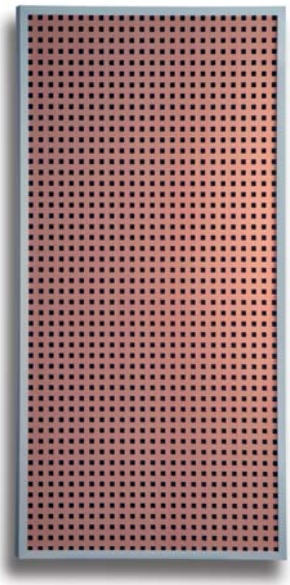
Specifications for "equivalent sound absorption surface" $A_{obj.}$ [m²]

for one OWAcoustic® broad band and low frequency absorber (dimensions: 1274 x 649 mm)

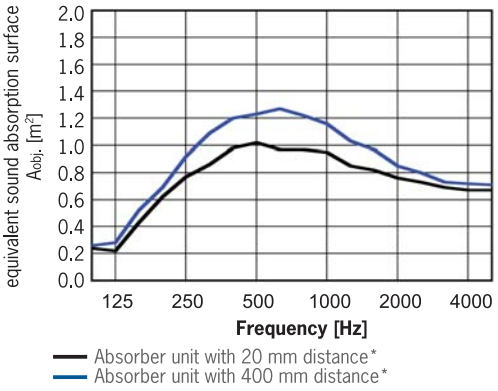
OWAcoustic® premium panel with acoustic fleece and Creaprint

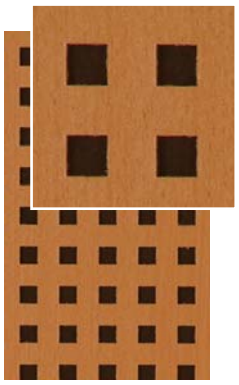


Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
$A_{obj.}$ for distance d = 20 mm	0.33	0.83	0.99	0.94	0.89	1.01
$A_{obj.}$ for distance d = 400 mm	0.42	1.04	1.12	1.12	1.02	1.07



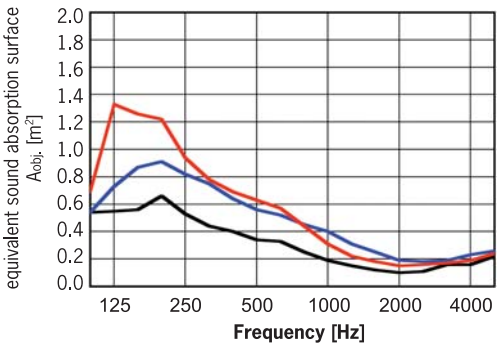
HDF/MDF panel with square holes
SH 10/22.5, 20.7 % open area

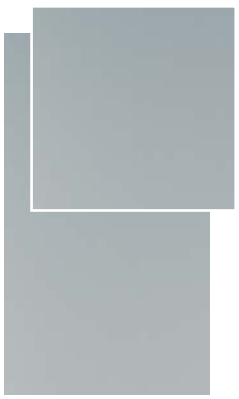




Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
$A_{obj.}$ for distance d = 20 mm	0.22	0.77	1.02	0.95	0.76	0.67
$A_{obj.}$ for distance d = 400 mm	0.28	0.92	1.23	1.16	0.85	0.72

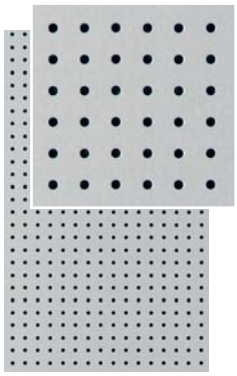
Non perforated aluminium, d = 1,5 mm

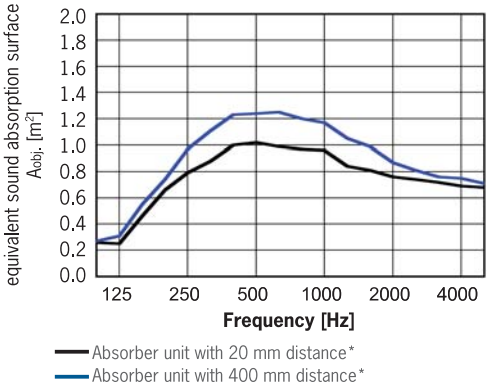




Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
$A_{obj.}$ for distance d = 20 mm	0.55	0.53	0.34	0.19	0.10	0.16
$A_{obj.}$ for distance d = 400 mm	0.73	0.82	0.56	0.40	0.19	0.23
$A_{obj.}$ for room corners	1.33	0.94	0.63	0.31	0.15	0.19

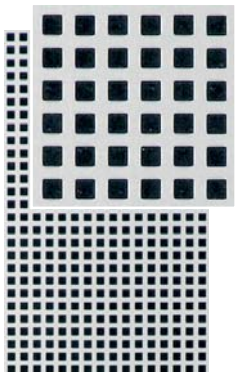
Aluminium panel with round holes RH 2.5/8.0, 7.6 % open area

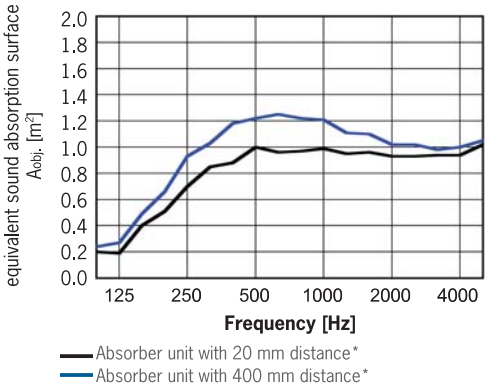


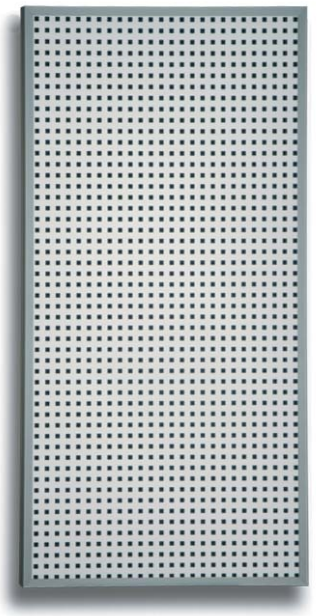


Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
$A_{obj.}$ for distance d = 20 mm	0.25	0.79	1.02	0.96	0.76	0.69
$A_{obj.}$ for distance d = 400 mm	0.31	0.97	1.24	1.17	0.87	0.75

Aluminium panel with square holes SH 5/8, 39.1 % open area







Frequencies	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
$A_{obj.}$ for distance d = 20 mm	0.19	0.70	1.00	0.99	0.93	0.94
$A_{obj.}$ for distance d = 400 mm	0.27	0.93	1.22	1.21	1.02	1.00

* In the laboratory test 15 single absorbers (dimensions: 1274 x 649 mm) were used. The absorbers were positioned in 3 rows, 5 absorbers per row, in the middle of the reverberation chamber. The single absorbers laid directly on the bottom of the reverberation chamber during the measuring. All absorber types were tested in two different distances (d = 20 mm and d = 400 mm). These specifications describe the distance between the absorbers to each other. The low frequency absorbers were additionally tested in the corners of the reverberation chamber by spreading the 15 single absorbers on the bottom in the room corners.

Technical Data

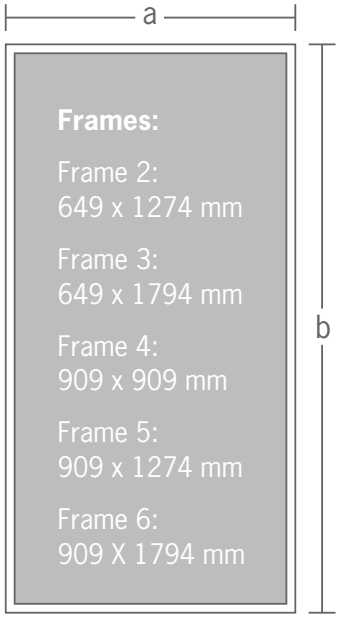
Thickness:
- Approx. 90 mm

Aluminium Frames:
- Anodised E6 / EV1
- Colours on request

Detail:
- Distinctive finished framework
- Frame corners mitred
- Drilled for wall mounting

Front Surface:
- Perforated aluminium panels with square or round holes and acoustic fleece backing
- OWAcoustic® premium mineral panels with decorative acoustic fleece facings e.g. Creaprinted surface
- HDF / MDF wood-effect panels with or without perforations
- Un-perforated aluminium panels

Rear Surface:
- HDF Panel
- Aluminium panel on request



Front Surface	Effect	Type	Frame 2 649 x 1274	Frame 3 649 x 1794	Frame 4 909 x 909	Frame 5 909 x 1274	Frame 6 909 x 1794
Alu SH 5/8 (39.1 %)	Wide Band	Absorber B	•	•	•	•	•
Alu SH 10/24 (17.4 %)	Wide Band	Absorber B	•	•	•	•	•
Alu RH 2.5/8.0 (7.6 %)	Wide Band	Absorber B	•	•	•	•	•
Alu, Un-perforated	Low Frequency	Absorber T	•	•	•	•	•
MDF/HDF panel SH 10/22.5 (20.7 %)	Wide Band	Absorber B	•	•	•	•	•
MDF/HDF panel Un-perforated	Low Frequency	Absorber T	•	•	•	•	•
OWAcoustic® premium panel Acoustic fleece	Wide Band	Absorber B	•	•	•	•	•
OWAcoustic® premium panel Acoustic fleece, Creaprint	Wide Band	Absorber B	•	•	•	•	•

For further information, please contact our Sales Office.

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