

A close-up photograph of a woman's face, focusing on her eyes, nose, and lips. She has her eyes closed and a serene expression. Overlaid on her face are two sound waves: a thin white one and a thicker green one. The background is a soft, out-of-focus grey.

INNOVATIVE ACOUSTIC SOLUTIONS

Systematic surround sound.

Akustik & Raum AG
JUST THE RIGHT TONE ● ● ●



MAKING ROOMS SOUND GREAT

Good room acoustics is important. It is not only decisive for acoustic perception, intelligibility of speech and acoustic quality, but also affects our personal sense of well-being in a room. For this reason acoustic room solutions are not only limited to concert halls and theatres, but are used in any rooms where people spend their time – in schools, restaurants, open-plan offices and shopping centres, conference rooms and lecture halls.

Akustik & Raum supplies optimum acoustic room solutions for specific demands. Under the MAKUSTIK brand we produce innovative and systematic acoustic solutions that are in demand around the world and that are distributed through carpenters, ceiling constructors and interior fitters. We not only regard ourselves as manufacturers, but also as strong room acoustics partners with a wide range of services and outstanding advisory competence.

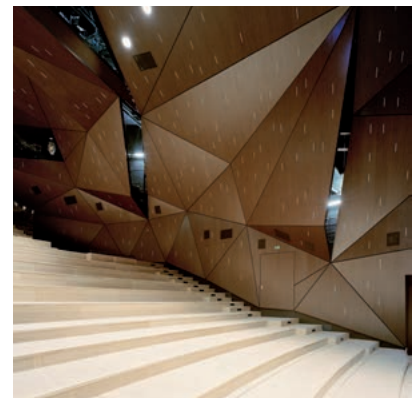
We are here for you. So that rooms really sound great.

Room acoustic variety



The brand for FineMicro perforations in wood and plastic glass:
An invisible room performance

Under the **MAKUSTIK** brand we develop and produce aesthetically pleasing and technologically advanced project-specific FineMicro sound absorbers. Depending on customer specifications, materials used for interior fittings such as real wood, wood fibre boards, hard ply panels, plaster or plastics are employed. A wide variety of surface materials, structures and colours combined with precise planning and high-quality processing enable unimagined design freedom.



STRONG PERFORMANCE

Adapted to the room and needs, our acoustic solutions offer an optimum performance and have an impressively high level of Swiss quality. They prove their efficiency at home and abroad, in large halls and small rooms – everywhere where sound, tone and the atmosphere impact people's well-being and concentration. A room lined with MAKUSTIK solutions reduces the noise of equipment, machines, disturbing conversations and countless human sounds. The reverberation (echo) is reduced to a tolerable level. What remains is a comfortable, noise-free atmosphere.

IMPRESSIVE AESTHETICS

Our FineMicro sound absorbers demonstrate that acoustic solutions can also be aesthetically pleasing. In contrast to standard sound absorbers, with its microperforation they are almost invisible. The other MAKUSTIK solutions also provide an attractive look to tailored acoustic solutions.

RELIABLE FIRE PROTECTION

Numerous MAKUSTIK absorbers also act as fire protection elements. Flame-retardant treated wood fibre boards and specifically homogeneous, dense plaster boards that reach the A2 classification have proven especially effective in providing extra fire protection.



MAKUSTIK IS USED WHERE ROOM ACOUSTICS ARE IMPORTANT:

- Offices
- Conference and meeting rooms
- Training and classrooms
- Sports and multi-purpose halls
- Airport and railway station concourses
- Lecture and congress rooms
- Entrance halls and foyers
- Hotels and wellness facilities
- Canteens and restaurants
- Concert and performance halls
- Museums and libraries
- Hospitals and healthcare facilities

**The ballroom at the Dolder Grand, Zurich
implemented with FineMicro FM**

ROOM SOLUTIONS FOR ALL NEEDS

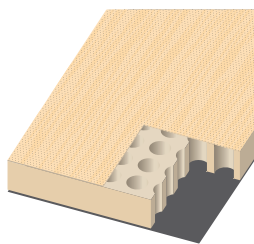
There are almost no limits to our acoustic room solutions. We can offer ideal solutions with a wide range of materials and surfaces and in all fire classes. This includes ceiling, wall, cupboard, shape and furniture elements with different absorption values. Our aesthetically and acoustically immaculate sound absorbers have proven particularly suitable. They are used for numerous types of room applications.

FineMicro | FM

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FineMicro, the invisible room performance for all applications. For the highest aesthetic and acoustic demands. Good absorption values are also achieved without fibres (i. e. without non-woven fabric and insulation). The micro-perforation means dust and dirt stand no chance in the long run. Suitable for magnetic surfaces, projection and decorative surfaces. With insertion on both sides, ideal constructive finishing for furniture elements such as cabinet doors. Available in panel format in all fire classes and as panels.



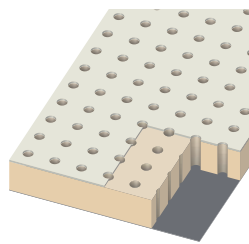
- The highest sound absorption over all frequencies
- Hygiene and sustainability
- Invisible perforation
- Simple planning with grid-free structure
- Available as panels or boards

Perfo | PE

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The proven and robust technology for great absorption with through-holes and stepped bores. Particularly suitable for large unit widths with additional screw joints to prevent sagging. Effective and easy use in sports hall areas with tested ball impact resistance. Advantageous on ceilings with large open areas for ventilation outlets. Available in panel formats in all fire classes.



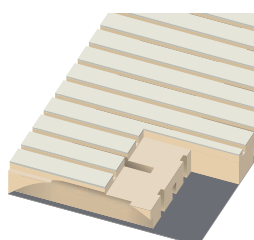
- Different hole diameters provide absorption leeway
- Simple perforation offsets
- Easily dismantled due to blind hole screw connection
- Suitable for sports halls (ball impact resistant)

Linea | LI

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If spatial structures are required on ceilings and walls, MAKUSTIK's grooved LINEA products are particularly suitable. The large number of land/groove variations on the surface and reverse side make LINEA a universal absorber. Another advantage of LINEA is fast and simple installation. Available as panels and boards and in all fire classes.



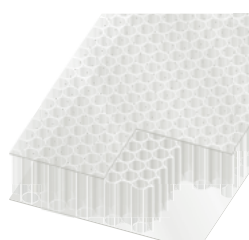
- Direction oriented structure
- Seam-free installation up to a width of 4000 mm
- Variable open surface/sound absorption
- Available as panels or boards

Acoustic plastic glass | KG

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Transparent acoustic absorbers offer the best perspectives and create a pleasant acoustic atmospheric environment. These requirements are fulfilled by means of ultra fine-micro perforation in transparent or translucent plastic glass panels. Individual boards or sandwich constructions can be installed as walls or ceilings or alternatively used as room dividers or movable walls. The rooms remain clearly laid out, the reverberation time is reduced and intelligibility is increased.

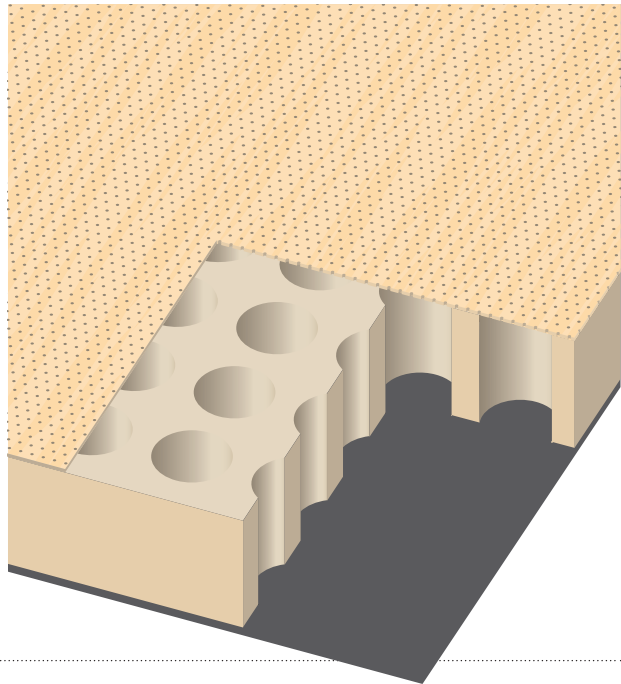
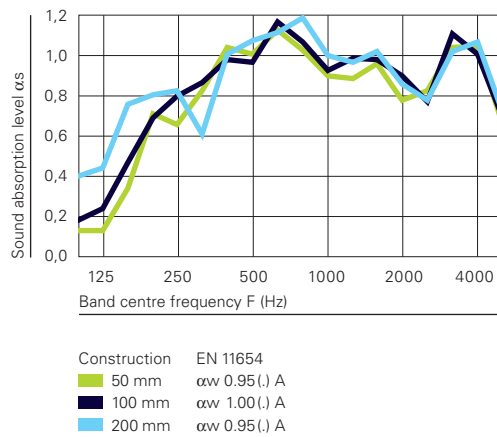


- Has a lightweight, neutral appearance
- Light permeable for ceilings, walls or movable walls
- Clear room layout maintained
- UV resistant

FineMicro FM 500 µm

Non-woven back, insulation 30/40 mm

Measurement in halls in compliance with EN 11654



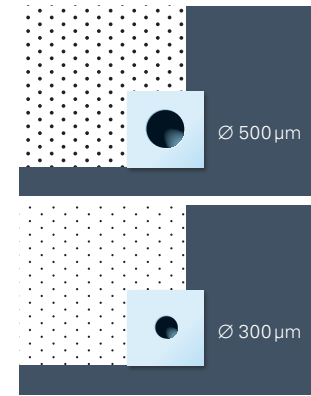
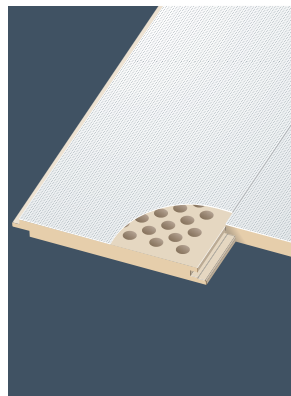
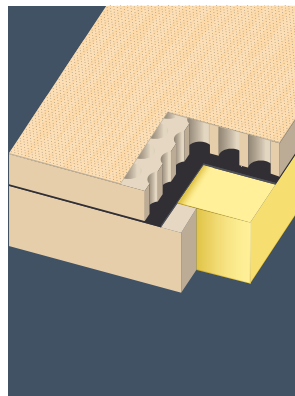
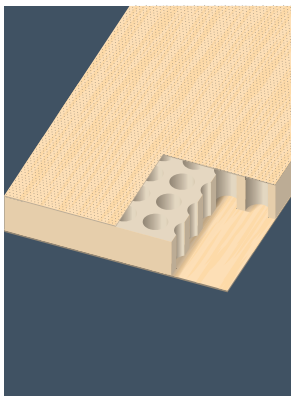
FineMicro variations

FineMicro on both sides

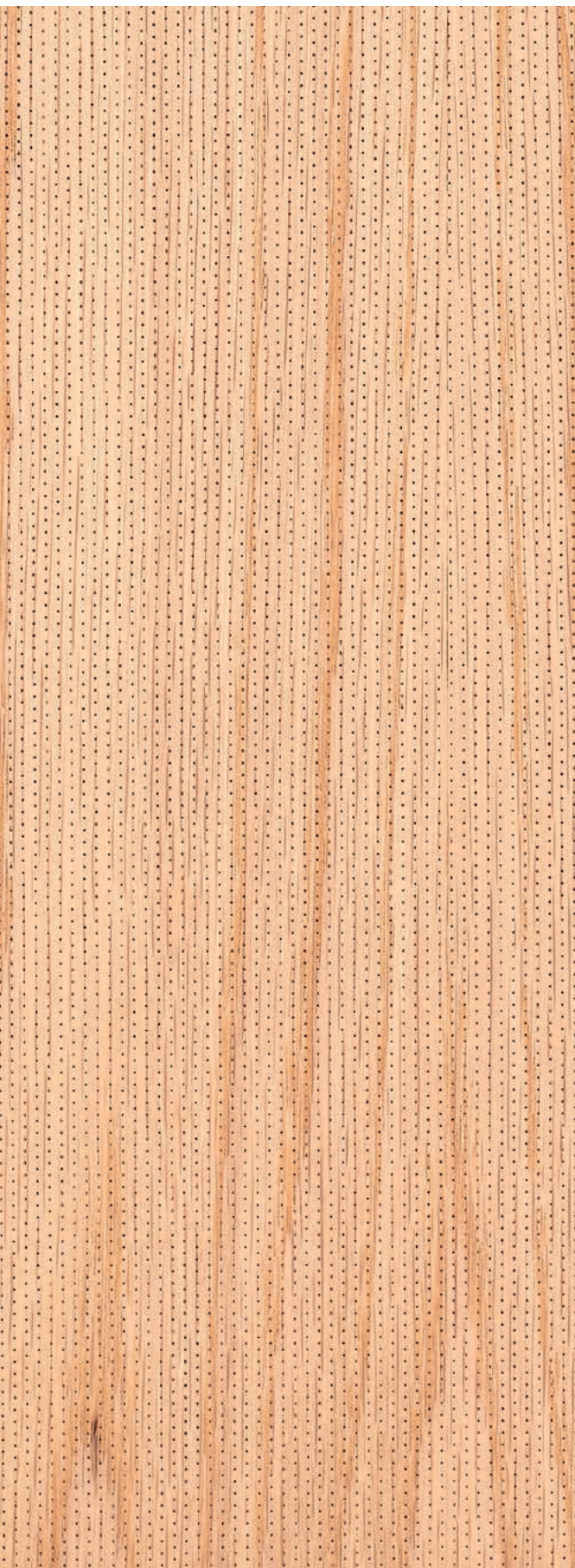
Pre-wall element

Panels

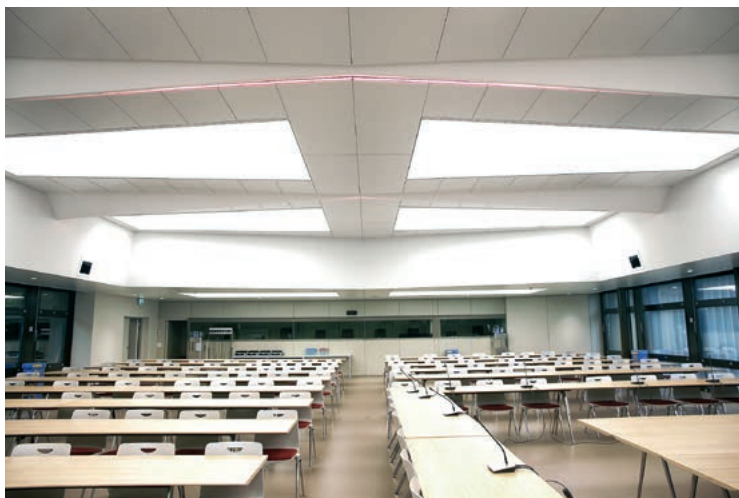
Perforation
500 µm or 300 µm



	Perforation	Board thickness	Insulation	Rear backing	50	100	200	20	24	30	Cabinet front
Ceiling-wall element	500 µm	17 mm	30/40	Non-woven fabric	0.95(.) / A	1.00(.) / A	0.95(.) / A				
Ceiling-wall cladding	300 µm	17 mm	30/40	Non-woven fabric	0.90(.) / A	0.90(.) / A	0.90(.) / A				
Pre-wall element	300 µm	20/24/30	12/15/20	Non-woven fabric				0.60(MH) / C	0.70(MH) / C	0.75(MH) / C	
Cabinet front	300 µm	19	0	FM							1.00(.) / A



Unia Bern



Just Switzerland,
Walzenhausen



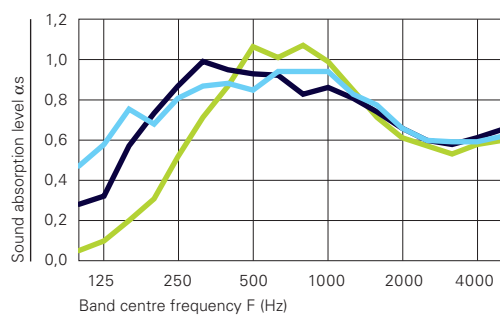
European Parliament,
Luxembourg



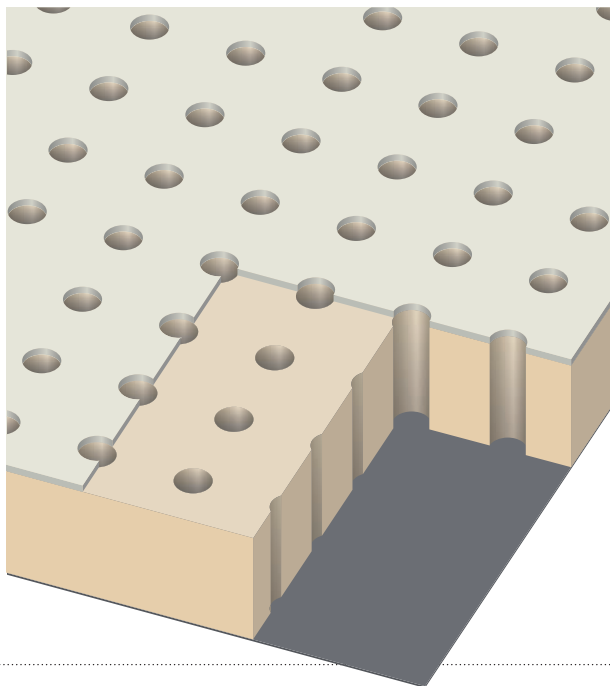
Perfo PE 16/16/8.0-1

Non-woven back, insulation 30mm

Measurement in halls in compliance with EN 11654

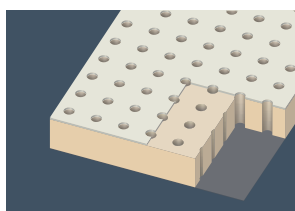


Construction	EN 11654
46 mm	α_w 0.70 (M) C
216 mm	α_w 0.70 (L.M.) C
366 mm	α_w 0.75 (L) C

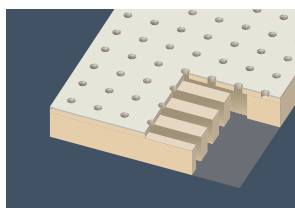


Perfo variations

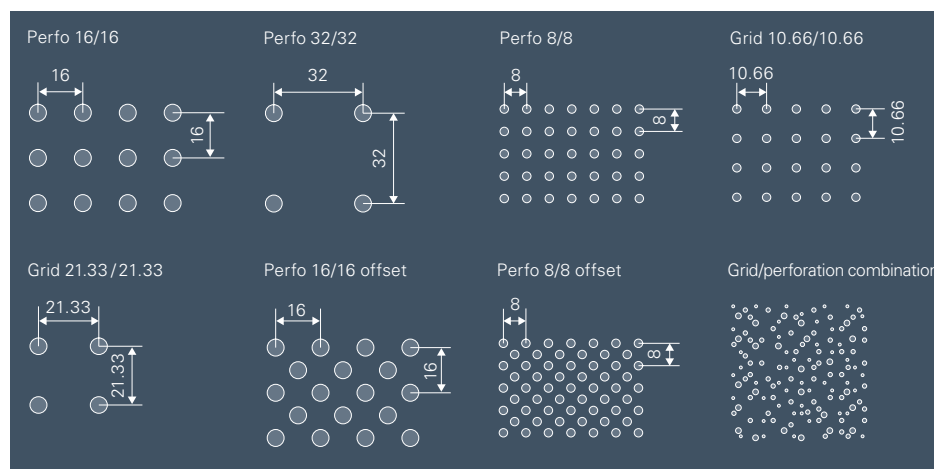
Through hole



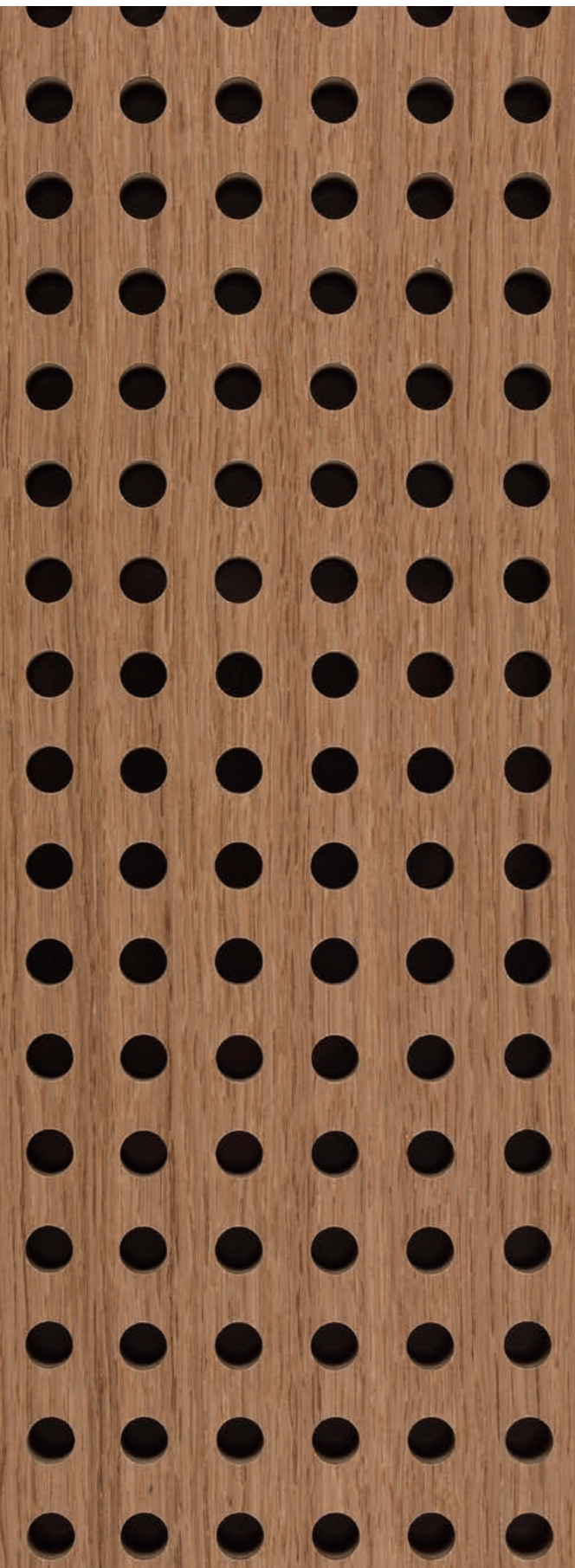
Stepped holes



Grid variations (hole sizes 1.5 mm / 2–6 mm / 8 mm / 10 mm)



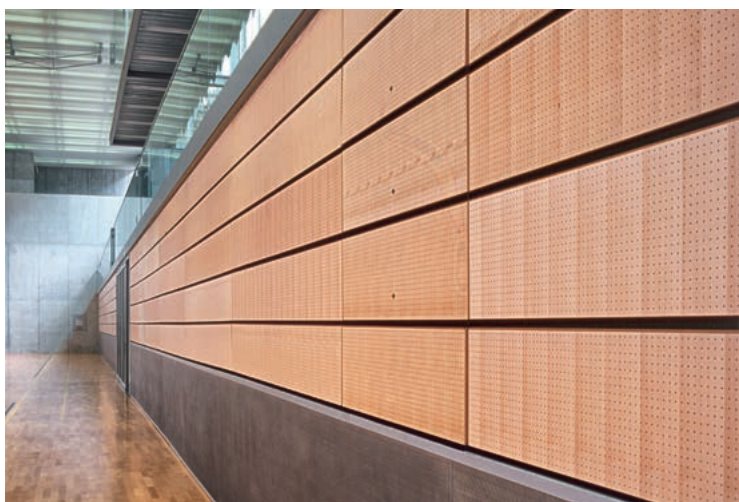
	Perforation	Board thickness	Insulation	Rear backing	46	216	366
PE 8/8/4.0-1	8/8/4.0	16	30	Non-woven fabric	0.65 (M)/C	0.70 (L.M.)/C	0.70 (L.M.)/C
PE 16/16/6.0-1	PE16/16/6.0	16	30	Non-woven fabric	0.45 (L.M.)/D	0.50 (L.M.)/D	0.50 (L.M.)/D
PE 16/16/8.0-1	PE16/16/8.0	16	30	Non-woven fabric	0.70 (M)/C	0.70 (L.M.)/C	0.75 (L)/C
PE 32/32/8.0-1	PE32/32/8.0	16	30	Non-woven fabric	0.25 (L.M.)/E	0.25 (L.M.)/E	0.25 (L.M.)/E
PE 8/8/1.5/3.5-1	8/8/1.5/3.5	16	30	Non-woven fabric	0.50 (L.M.)/D	0.45 (L.M.)/D	0.45 (L.M.)/D
PE 8/8/3.0/5.0-1	8/8/3.0/5.0	16	30	Non-woven fabric	0.80 (./)/B	0.85 (./)/B	0.85 (./)/B
PE 16/16/3.0/5.0-1	16/16/3.0	16	30	Non-woven fabric	0.30 (L.M.)/D	0.35 (L.M.)/D	0.35 (L.M.)/D
PE 16/16/5.0/7.0-1	16/16/5.0/7.0	16	30	Non-woven fabric	0.70 (M)/C	0.85 (./)/B	0.80 (./)/B
PE 16/16/6.0/8.0-1	16/16/6.0/8.0	16	30	Non-woven fabric	0.75 (M.H.)/C	0.95 (./)/A	0.95 (./)/A



ATB SA, Moutier



Sports hall, Magglingen

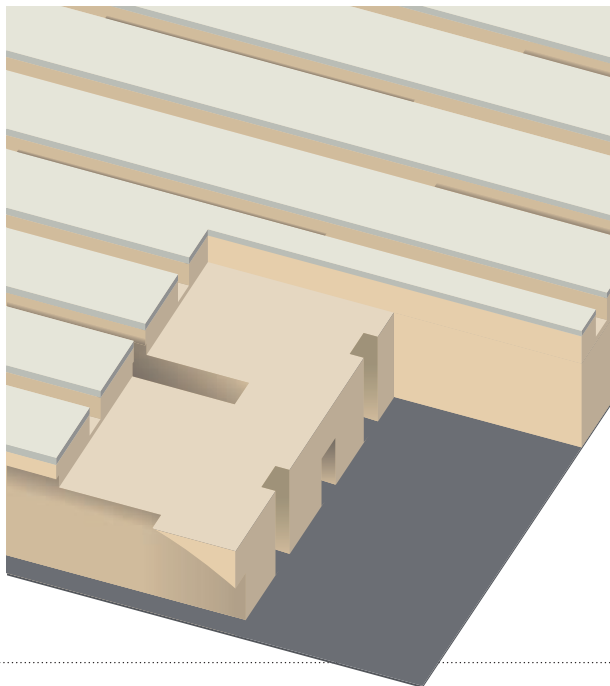
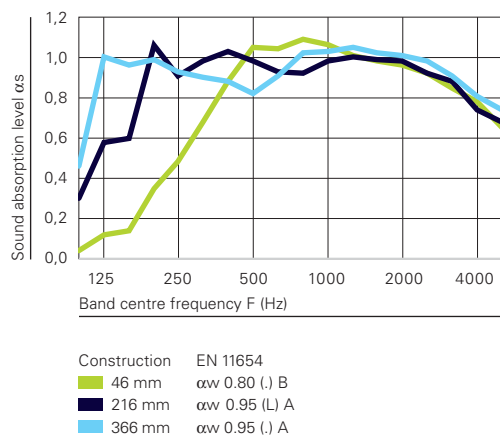


Kindergarten, Buchs (AG)



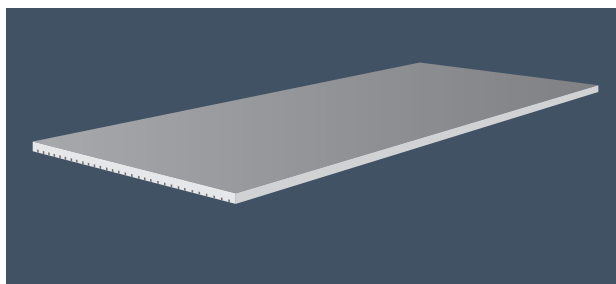
Linea LI5/3.0-1, Non-woven back, insulation 30 mm

Measurement in halls in compliance with EN 11654

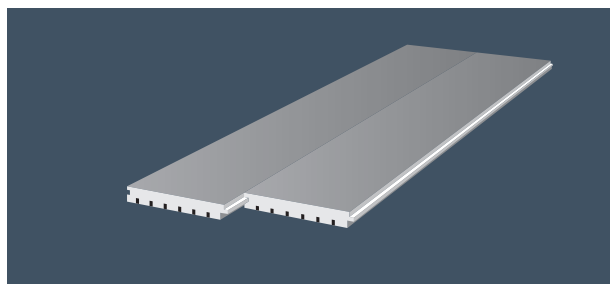


Linea variations

Board elements, made-to-measure



Standard panels



	Perforation	Board thickness	Insulation	Rear backing	46	216	366
LI 5/3.0-1	5/3	16	30	Non-woven fabric	0.80 (.)/B	0.95 (L)/A	0.95 (.)/A
LI 6/2.0-1	6/2	16	30	Non-woven fabric	0.70 (M)/C	0.80 (L)/B	0.85 (L)/B
LI 9/2.0-1	9/2	16	30	Non-woven fabric	0.65 (M)/C	0.70 (L.M)/C	0.75 (L)/C
LI 12/4.0-1	12/4	16	30	Non-woven fabric	0.70 (M)/C	0.75 (L)/C	0.80 (L)/B
LI 13/3.0-1	13/3	16	30	Non-woven fabric	0.60 (M)/C	0.60 (L.M)/C	0.65 (L)/C
LI 14/2.0-1	14/2	16	30	Non-woven fabric	0.55 (M)/D	0.55 (L.M)/D	0.60 (L)/C
LI28/4.0-1	28/4	16	30	Non-woven fabric	0.65 (M)/C	0.60 (L)/C	0.70 (L)/C
LI 30/2.0-1	30/2	16	30	Non-woven fabric	0.35 (L.M)/D	0.30 (L.M)/D	0.30 (L.M)/D



Hotel Sedartis, Thalwil



**Verein Gnadental
Reusspark, Niederwil**

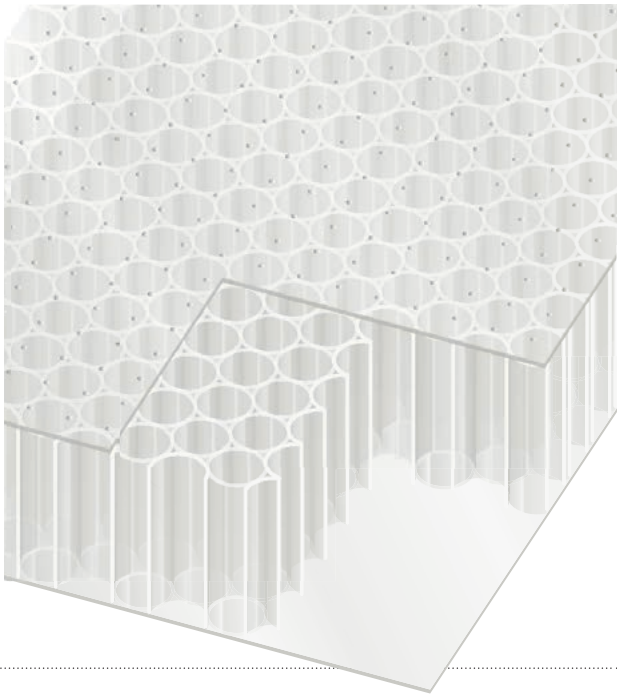
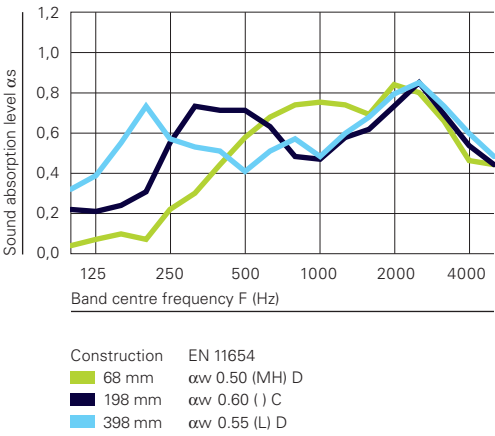


**Centre Médicale Universitaire,
Geneva**



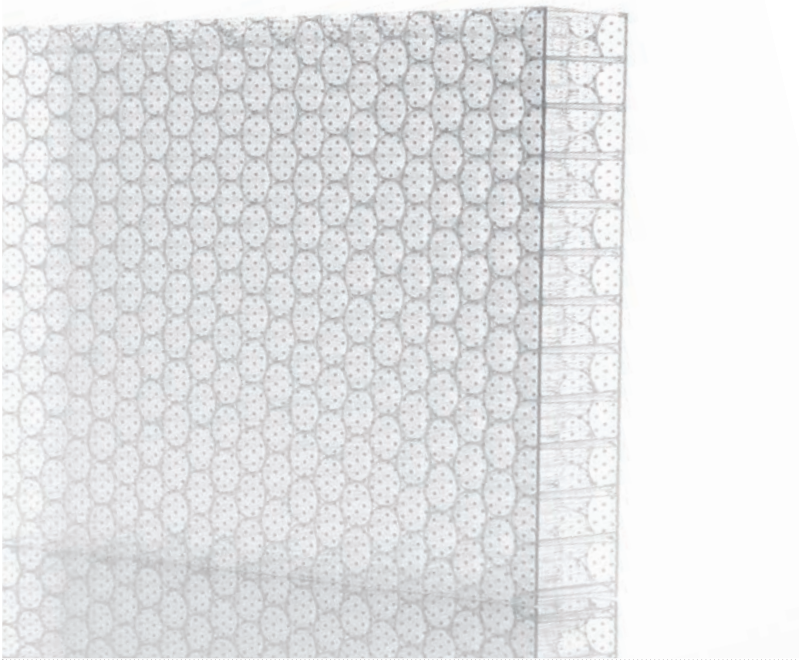
KG 500µm
without insulation

Measurement in halls in compliance with EN 11654

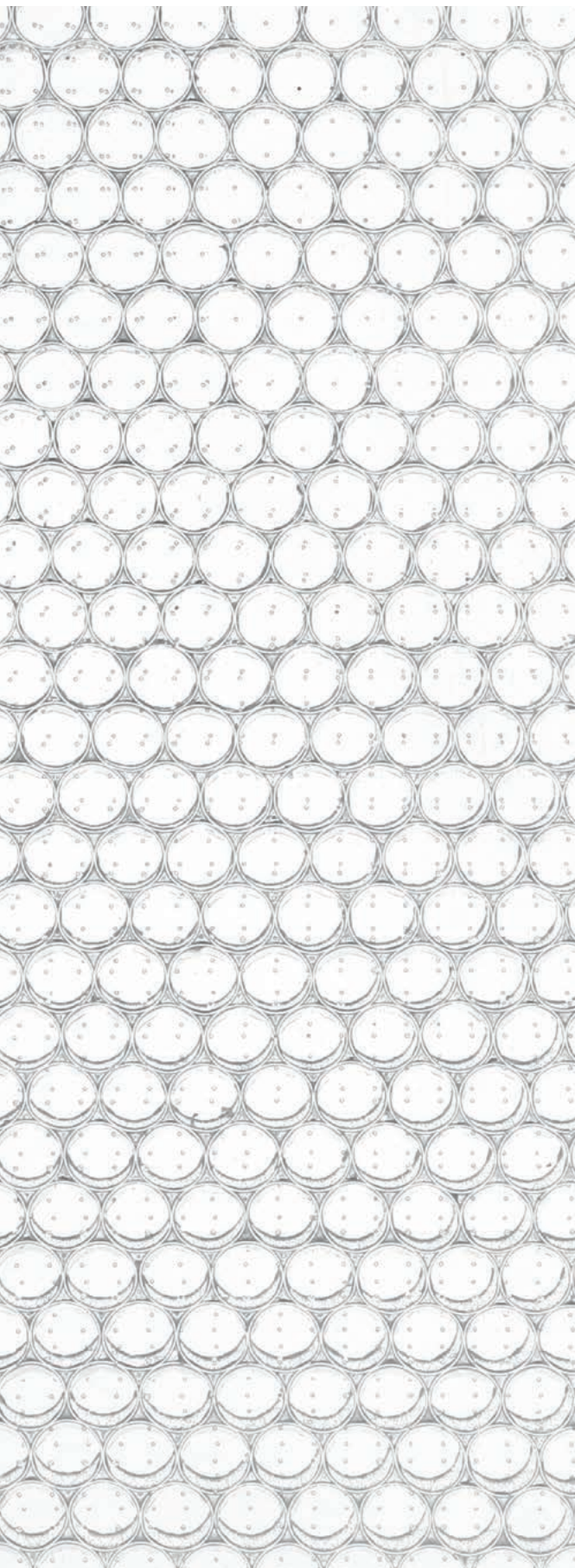


Plastic glass variations

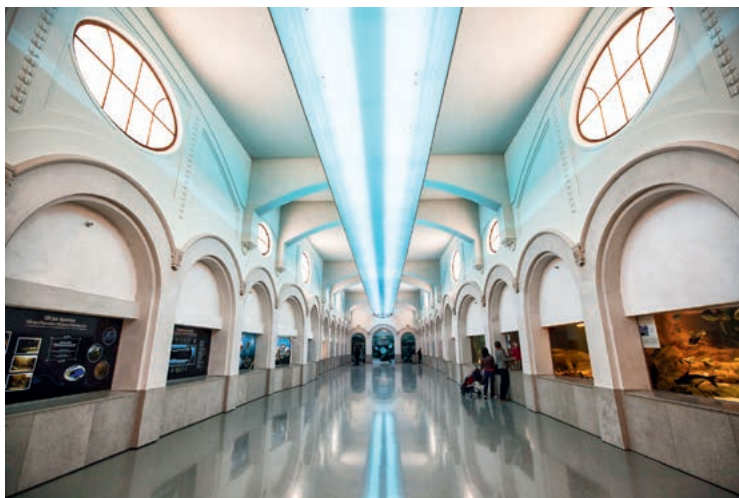
Honeycomb 7 mm



	Perforation	Board thickness	Insulation	Rear backing	68	198	398	Free-standing
KG 500µm	500µm	25mm	without	KG	0.50(M.H)/D	0.60(.)/C	0.55(L)/D	
KG 500µm	500µm	25mm	without	KG				0.55(H)/D



ZOO, d'Anvers



**Integra site,
Wallisellen**



ICRC, Geneva



Our services

SALES

- Solution-focused consulting
- Technical information
- Test certificates
- Support with tender quotations
- Installation assistance
- Contract furnishings

PLANNING SERVICE

- Support with measurements on-site
- Detail clarification
- Customer drawings
- Parts lists
- Material planning
- Raw materials
- Colour samples
- Project changes

PRODUCTION SERVICE

- CNC programming and use of tools
- Design samples
- Key processes in-house
- Quality control
- Order monitoring
- Packaging, delivery and installation aids

AFTER SALES SERVICES

- Partner after sales
- Subsequent deliveries in the shortest possible time
- Support for optimisation, cleaning or revitalisation work





Federal Parliament Building, Bern



These products are becoming increasingly popular

MAKUSTIK is a registered brand of Akustik & Raum AG



Centre Médical Universitaire, Geneva
Acoustic system FM 500µm Maple veneer



UNIA, Bern
Acoustic system FM 500µm white



Dolder Grand Zurich, Switzerland
Acoustic system FM 500µm white lacquer



Main auditorium of the LMU Munich
Acoustic system FM 500µm Coco oak

Success always confirms that
you've chosen the right path.

**Will we meet?
We're looking forward to it!**

www.akustik-raum.com

Akustik & Raum AG

JUST THE RIGHT TONE ● ● ●

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