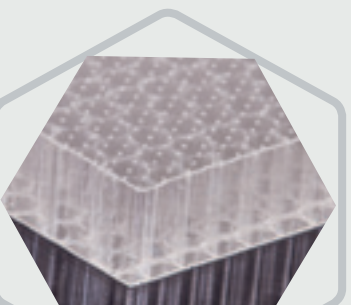
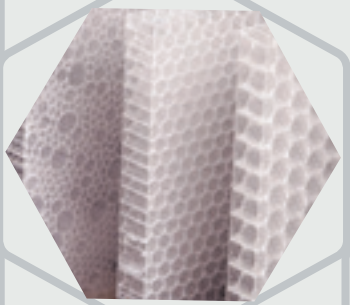


ACOUSTIC

ACOUSTIC





Feel-good factor, room acoustics

A pleasant indoor climate depends on several factors

In the design of the room the optical conditions in a room are usually defined first: colours, shapes, the floor, wall and ceiling coverings as well as the furnishings. They all contribute decisively to the character of a space. The fact that rooms are perceived not only through the eyes, but also through the ears is only realized by most people when they are disturbed by excessive noise levels, poor speech intelligibility or other inadequate acoustic conditions in a room. In many cases, the question arises, "Could you have done better?" The answer is in almost all cases an unreserved "yes", because room acoustics are characterized by the fact that they are plannable and predictable. It is also known under which conditions spaces feel acoustically pleasant or if people feel disturbed.

In principle every room can be acoustically optimized. With the aid of modern computer programs it is possible to calculate the acoustics of a room in advance. Especially for rooms with

high acoustic demands such planning is always recommended. The goal is always an environment in which we feel comfortable, in which we can communicate without difficulty and which we do not feel it to be too loud or too quiet. Two areas play an important role: "building acoustics" and "room acoustics"

Room acoustics always consider a space in entirety: an office, a call centre or meeting room, a classroom, a swimming pool or a concert hall. The evaluation is essentially that of the acoustic conditions in the space itself, which are primarily influenced by the surfaces and equipment therein. design composite translucent acoustic panels can contribute to improving room acoustics in various ways. The thin and architecturally sophisticated thermoplastic panels can be adapted to the particular design of the room in a simple manner. Not only do they contribute visually to the design of the room but they also make an important contribution to the acoustic well-being thanks to their good sound absorption properties.



Translucent acoustic panels from design composite

Architecture & spatial acoustics in harmony

Often the demands on the architecture of a room and the planned measures for the improvement of the room acoustics are in complete contrast to each other. With its translucent acoustic panels, design composite offers a variety of possibilities to integrate the elements into existing room concepts or existing rooms without having to interfere with the basic architecture or lighting design of the rooms. The panels can be flexibly adapted to the room in shape and colour. For example the pursuit of transparency must no longer be at odds with optimized acoustics.

The transparent sandwich panels - consisting of micro-perforated, translucent facings and a transparent or coloured honeycomb core - have a high degree of sound-absorption and are characterized by their unique optics and functionality. Whether individually, in formation, or as a surface covering a wall, a wall suspended freely in the room or as a part of a desk, as a dividing wall or mobile enclosure of a workplace, the elements can be flexibly and individually adapted to the respective room concept.

Translucence

The panels made of translucent honeycomb cores with UV-stable perforated facings with up to 60% light-transmissivity.

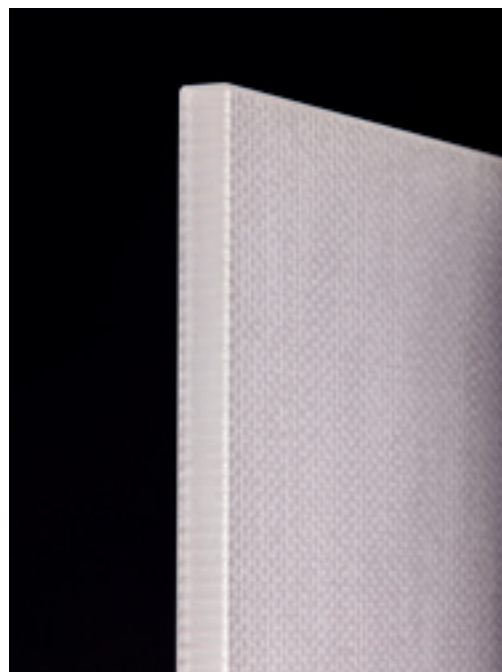
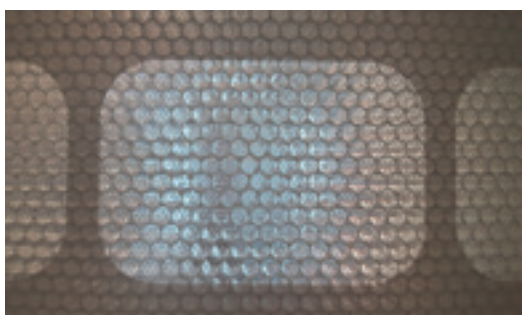
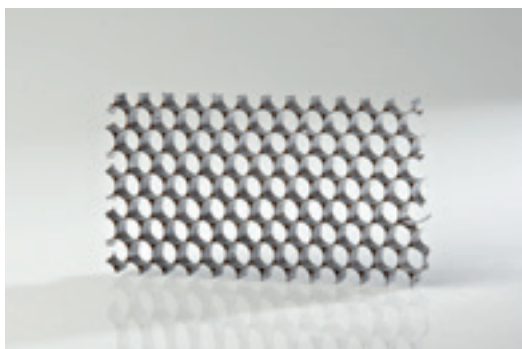
3D Effects

The acoustics panels can be characterised by their light scattering and light absorption effects and enhanced by backlighting, integration of light bodies and other decorative materials.

Diversity

Diverse possibilities for the individual design of the acoustic elements whether core design, shape or special effects.

Printed panels are also possible as are formed panels, special edge effects and ready-to-install systems.



How do the elements in work?

We perceive as different sounds such as noise, speech or music at different intensities depending on their sound pressure level. Our perception of noise begins at about 20 dB (ticking clock) and a whispered conversation takes place at approx. 30 dB. In addition to the sound pressure level, the frequency composition or the spectrum of the sound is particularly important. The human ear usually perceives frequencies between approximately 20 Hz and 20,000 Hz. As a consequence of the fact that our hearing varied sensitivity at different frequencies, spatial acoustic variables such as the reverberation time, the sound pressure level, or

the sound absorption rate of a material are generally indicated as a function of the frequency. The acoustic effect of a material (or an object) is described by the sound absorption degree. This can take values between 0 (no absorption, example: a concrete wall) and 1 (complete absorption, example: wall surfaces in a recording studio). The sound absorption rate is highly dependent on the frequency and should therefore be described as far as possible not only by a single value but by a series of values as a function of the frequency.



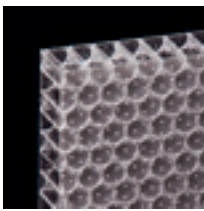
Room acoustic products by design composite

Product range

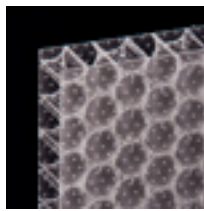
AIR-board® acoustic

The sandwich element, consisting of micro perforated translucent facing sheets and a transparent honeycomb core, has a translucency of up to 60%, has a high level of sound-absorbing properties, is characterized by a very low weight combined with high stiffness and is also difficult to ignite (B s1 d0 according to EN13501-1).

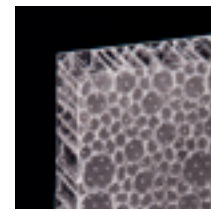
The panels are available in 3 core versions:



AIR-board® acoustic:
7 mm cell diameter



big AIR-board® acoustic:
12 mm cell diameter

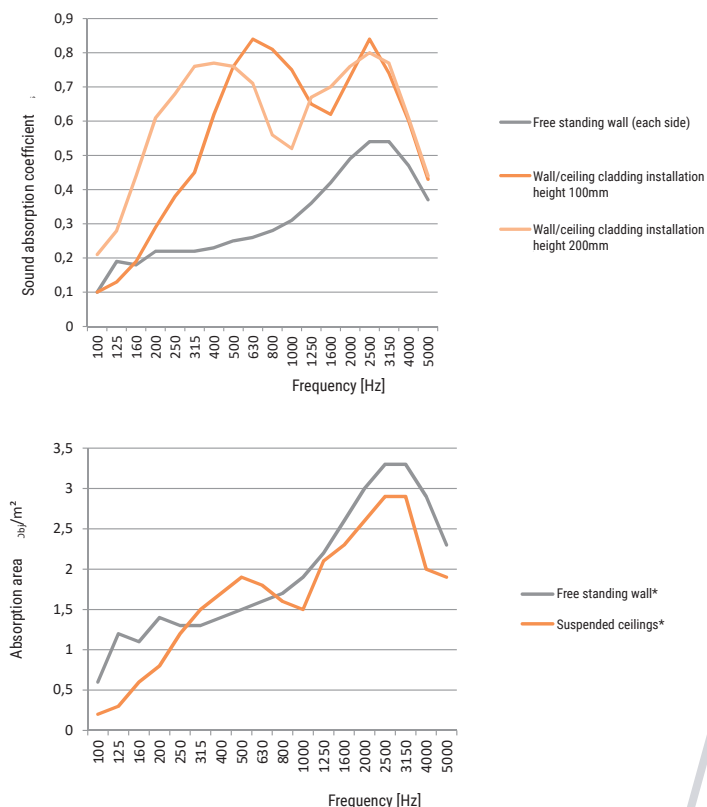


chaos AIR-board® acoustic:
4,7 and 12 mm cell diameter

Standard dimensions: 2.500 x 1.220 x 19 or 25 mm

Air-board® acoustic

Readings



*based on a panel size 2500 x 1220 mm

The range of translucent thermo-plastic acoustics panels of the AIR-board® series from design composite can be integrated into the internal design efficiently, in a visually sophisticated and uncomplicated manner.

Customized solutions

Important and popular offer from design composite are the ready-made system solutions and custom-made products. In addition to the optically sophisticated products, design composites service and an uncomplicated installation are paramount. The requirement to be able to deliver ready-to-use products right up to the customer's doorstep not only makes a great contribution to the planning and development of individual solutions but also the practical and uncomplicated system solutions.



Office concepts & finished systems



Partition wall:
1,800 x 1,200 x 25 mm, panels incl. Edge sealing in "satin", 2 pairs of bead-blasted stainless steel feet and mounting material



Table top divider:
1,600 or 1,800 x 600 x 25 mm
Panels including edge sealing satin "satin" and mounting brackets



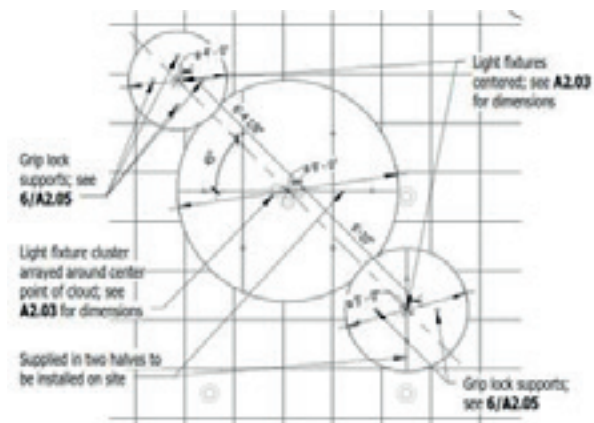
Suspended partition:
1,800 x 1,200 x 25 mm, panels including edge sealing "satin", ceiling and floor suspension (1.5 mm stainless steel cable).



Ecot Offices, Columbus US
NVIRONMENT Architect, Columbus US

Acoustic ceiling Ecot

suspended acoustic ceiling panels
80 m²
AIR-board® acoustic





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