



# The art of competence

FeinMicro, the innovative  
micro sound absorbers

Swiss quality

Support in planning and execution

Efficient sound absorption

Wide range of high-quality materials

Invisible perforation

Suitable for filming

Hygienic

Fire retardant

Daylight

Value-preserving

STUTT GART STATE THEATRE | SCHAUSPIELHAUS



HESSIAN STATE PARLIAMENT

## PERFORMANCE

We provide premium Swiss quality room acoustics. Our solutions have proven themselves both at home and abroad – wherever sound, tone and atmosphere impact on one's well-being and concentration.

Our range of FineMicro technologies enables us to offer the perfect solution for every room and every requirement.

## PLANNING AND EXECUTION

We support our customers and partners (builders, architects, acousticians, interior fitters, ceiling constructors, carpenters, drywall installers) in planning, installation, and with comprehensive services. First-hand advice from selected experts.



## TECHNOLOGY

A room lined with FineMicro 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.

## WOOD, GLASS AND MORE

Under the MAKUSTIK brand, we develop and produce aesthetically pleasing and technologically advanced project-specific FineMicro sound absorbers. Depending on the customer's requirements, we process materials that are popular as interior fittings, such as wood, wood fibre board, hard ply panels, plaster, plastic, glass or honeycomb structures.

A wide variety of surface materials, structures and colours, coupled with precise planning and high-quality workmanship allow unprecedented creative freedom.



## PURE AESTHETICS

Unlike conventional sound absorbers, our solution is invisible. Therefore – as confirmed by architects and interior designers – it is functionally and aesthetically superior to conventional techniques. Large, disruptive openings are replaced by barely visible and highly functional FineMicro structures.

## SUITABLE FOR FILMING

Where cameras are used, a visible perforated grid in the background grid leads to so-called moiré patterns (interference patterns). They make an image flicker or create disruptive waves.

FineMicro reliably prevents moiré formation. In public spaces, this advantage extremely importance in terms of suitability for filming.

Ideally, comprehensive room acoustics should also extend to furnishings and furniture.





# SUSTAINABILITY HYGIENE

Conventionally prepared, porous absorbers lose their effect in a short space of time due to dirt and dust accumulation. Not so our FineMicro products, which are designed for sustainability. Owing to the minimal dimensions of the perforation, dust cannot penetrate the material. This prevents any contamination of the material and deterioration of the sound absorbing effect. Even after many years of use, rooms equipped with MAKUSTIK therefore still don't accumulate harmful microbes. Once installed, MAKUSTIK elements require no further care.

Thus, they are also a very successful solution for hygienically demanding environments such as laboratories, hospitals and clean rooms.

# FIRE PROTECTION

In addition to the high aesthetic and acoustic requirements in rooms with lots of people, particularly close attention is also paid to fire safety. Our fire-resistant absorbers are designed for highly efficient fire protection. Flame-retardant treated wood fibre board and specifically homogeneous, dense gypsum boards that reach the A2 classification have proven especially effective. Our mineral glass absorbers are also guaranteed non-flammable.

Under the FIREwood/MAKUSTIK FineMicro label, an A2 and B1 classified absorber integrated with wood and plaster, which is produced in a controlled production environment, was introduced to the market.



FEDERAL PARLIAMENT BUILDING | BERN

## HISTORICAL USE

We have made possible what up to now has been too challenging or virtually impossible in terms of acoustics: FineMicro power for changing uses of historically protected rooms. Through special applications and suitable FineMicro absorbers, we make it possible to resolve the contradiction of aesthetics and function in this area.

Thanks to the adjusted acoustic atmosphere, historic rooms can be re-used for a range other purposes – a valuable contribution to the conservation of value.

## DAYLIGHT

A world first: our transparent, acoustic absorbers in plastic glass and mineral glass. They enable you to use natural light as efficiently as possible and still make the benefits of efficient sound absorption felt.

Light-filled rooms no longer have to be compromised by opaque acoustic materials. Architects and builders call for modern, bright rooms with perfect surround sound – we meet these expectations with our transparent FineMicro absorbers.



# IN-HOUSE DEVELOPMENT

FineMicro is a high-performance absorber which meets the highest acoustic, aesthetic, hygienic and fire protection standards. The physical basis of such micro-absorbers have been known for decades, but it was impossible to implement them technically for a very long period of time due to a lack of production know-how. As a licensee and partner of the IBP Fraunhofer Institute, we have been successfully putting these theories into practice since 2000.

Through various manufacturing technologies such as laser, water jet, punching and slurry, impeccable microstructures and perfectly aligned perforations can be achieved.

In order to meet our high quality standards, we develop our own machines, aggregates and fine tools that can handle even the most difficult covering and carrier materials, such as plaster, glass, plastic and hard play panels, and are suitable for large-scale, offset-free application.

# ADVANCEMENT

Recognised credentials from Switzerland and abroad confirm that we provide optimal sound absorption solutions. In partnership with recognised research institutes, we are working on new technologies and materials and safeguard our achievements through international patents.

We keep advancing further and further. We invest in new technologies and innovative equipment, machinery and tools. Solid partnerships and the continuous quest for improvement lead to trend-setting solutions.

Architecture is a fine art.  
We prove this by looking ahead.



# AKUSTIK & RAUM AG IN ACTION



FineMicro products made from wood and glass  
are inventions designed by Akustik & Raum AG

- 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
- Industrial enterprises in hygiene and clean room areas

**Akustik & Raum AG**  
JUST THE RIGHT TONE ● ● ●

Akustik & Raum AG • Tannwaldstrasse 101 • CH-4600 Olten  
Tel. +41 62 205 24 24 • Fax +41 62 205 24 25  
[www.akustik-raum.com](http://www.akustik-raum.com) • [info@akustik-raum.com](mailto:info@akustik-raum.com)