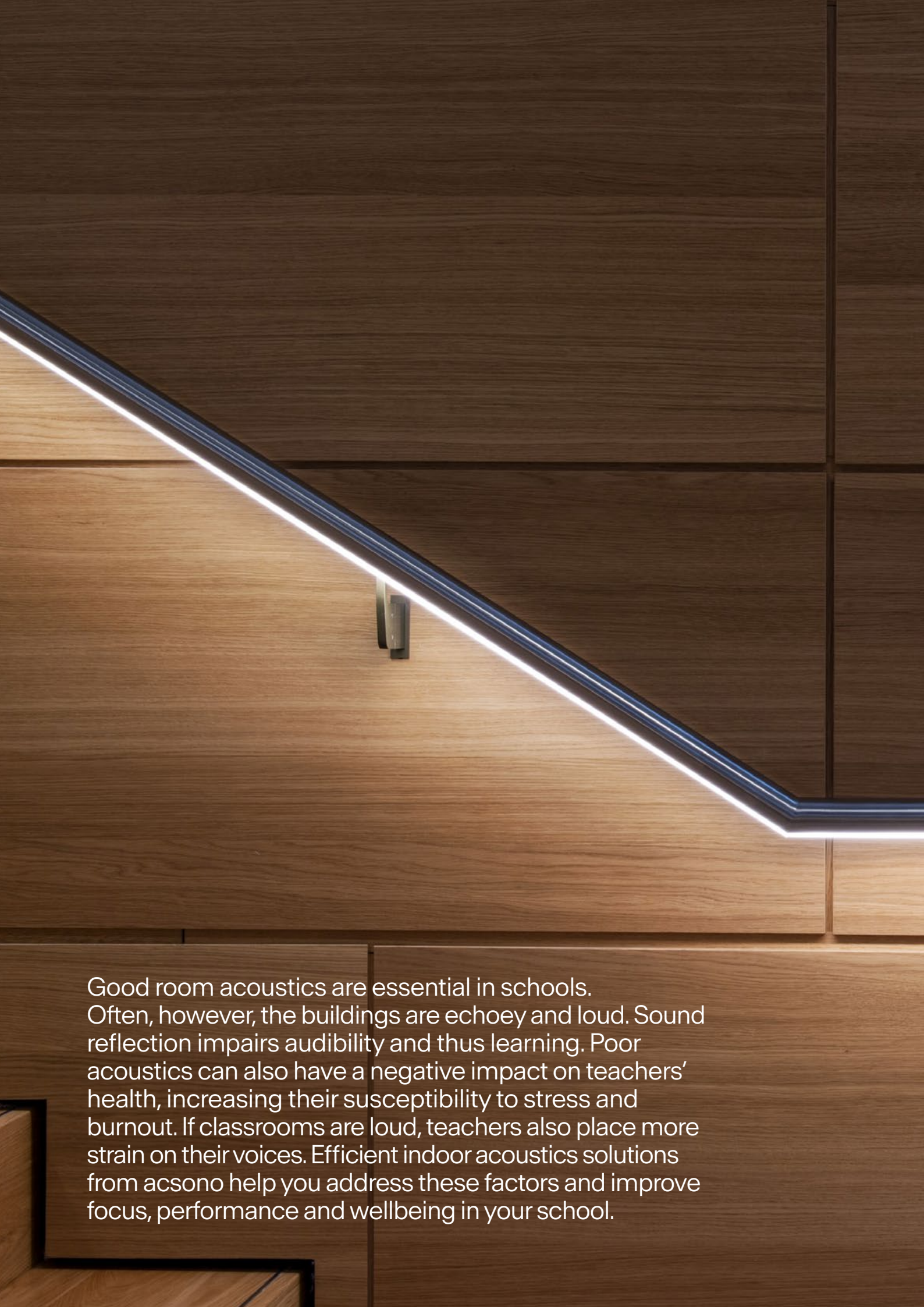


acsono

# Optimum soundscapes *for schools*



A photograph of a modern staircase. The wall is made of horizontal wooden planks. A handrail, composed of two parallel blue tubes, runs diagonally across the frame. A bright white light strip is embedded within the lower blue tube, creating a strong glow. A small metal bracket is visible where the handrail is mounted to the wall.

Good room acoustics are essential in schools. Often, however, the buildings are echoey and loud. Sound reflection impairs audibility and thus learning. Poor acoustics can also have a negative impact on teachers' health, increasing their susceptibility to stress and burnout. If classrooms are loud, teachers also place more strain on their voices. Efficient indoor acoustics solutions from acsono help you address these factors and improve focus, performance and wellbeing in your school.



## Acoustic furniture *for the ideal learning environment*

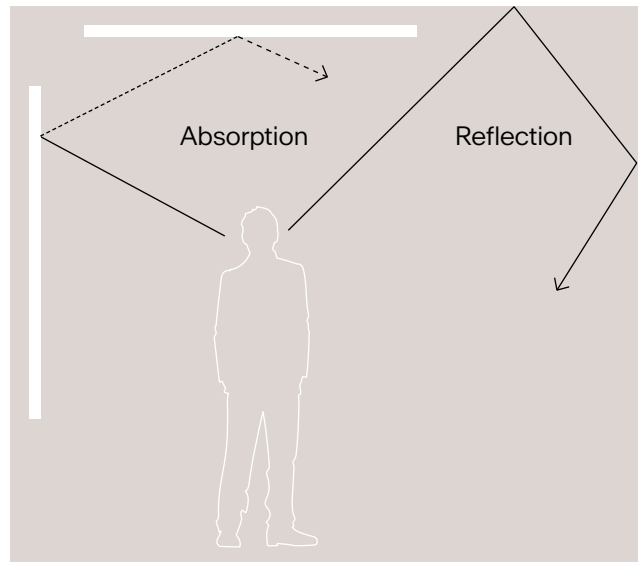
Did you know that in many countries, laws and legal standards categorise classrooms and other teaching spaces as 'noise-sensitive rooms' subject to binding thresholds for noise emissions?

This is because whether in a classroom, lecture theatre, break room or sports hall, the room acoustics play a key part in creating a healthy and productive learning environment. The power to improve these is in your hands: discover our furniture and cladding solutions for optimum room acoustics and aesthetically pleasing sound insulation.

- **Noise reduction:** peace and quiet for better concentration and learning ability
- **Sound absorption:** pleasant environment free from echoes and reverberation
- **Sound optimisation:** optimum sound and audibility
- **Aesthetics and design:** custom designs for visual harmony
- **Reliability:** durable, top-quality products made from sustainable materials

# Room acoustics – *the key to wellbeing*

Whether we perceive a room as too loud or pleasantly quiet greatly depends on the materials used – or to be more precise, on their ability to reflect and absorb sound. Hard surfaces such as glass or concrete reverberate for longer, resulting in unpleasant room acoustics. Optimum acoustic impact and reverberation times can be achieved by striking the perfect balance between absorption and reflection. This is always tailored to the room usage and designed with the support of our experienced acoustic specialists.



The walls, ceilings, structural elements and furniture all have a significant impact on room acoustics. Sound absorption is key here – and with our FineMicro products, up to 90% can be absorbed.



# The impact of *room acoustics*

Studies have shown that sound affects our sense of wellbeing and our cognitive performance.

# 80% 70 dB 5–7%

of teachers get stressed/annoyed by the noise in classrooms

is the average noise level in schools – equivalent to that near the pavement alongside a busy road

increase in performance is achieved with just a 10 dB reduction in noise

Noise is classed as one of the most serious environmental health risks after air pollution and is subject to country-specific regulations:

- In **Switzerland**, the maximum permissible noise level in classrooms under SIA Standard 181:2020 is established in the Noise Abatement Ordinance.
- In **Germany**, DIN 4109 regulates the minimum standards for sound insulation in schools, nursing homes and similar institutions.
- In **France**, high standards for the sound insulation, reverberation times and noise level of technical equipment in school buildings have been established by decree since 2003.

# For greater comfort and *better concentration in schools*

Schools are places where people come together – to meet, converse, listen or learn. As such, room acoustics have a major influence on wellbeing, concentration and audibility.

In view of the above, schools face major challenges when it comes to acoustics. Large class sizes coupled with architectural structures with a high level of sound reflection impair concentration and audibility. But successful learning depends on listening: during 50 to 70% of lesson time, knowledge is imparted through

spoken language. This is where our sound-absorbing products come into their own. In educational institutions in particular, they optimise the room acoustics in all areas where people spend time, from classrooms and the library to the multi-purpose hall and canteen.





## In a class of their own: *acoustic solutions for schools*

What are the room acoustics like in your school? Do they meet legislative standards and your targets for a healthy and productive learning environment? Make the difference – through innovative solutions with a major impact. Here at acsono, we design acoustics systems to suit diverse requirements.

Our products are in demand worldwide and sold by joiners, architecture and interior design firms and companies with a focus on ceiling construction and interior fittings. Besides being a manufacturer, we are also a strong partner, providing a wide range of services and professional advice to support you. We are there for you – so your rooms sound the way they should.

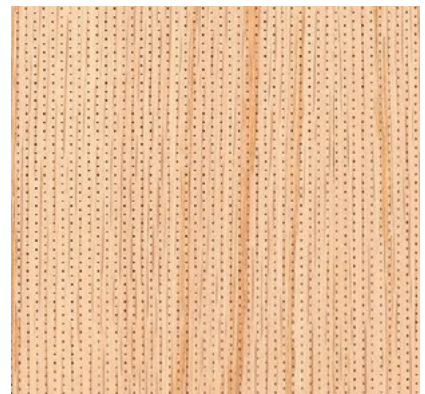
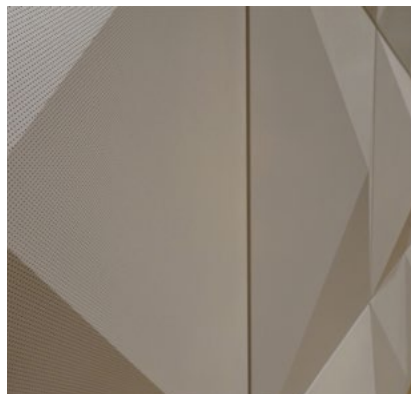
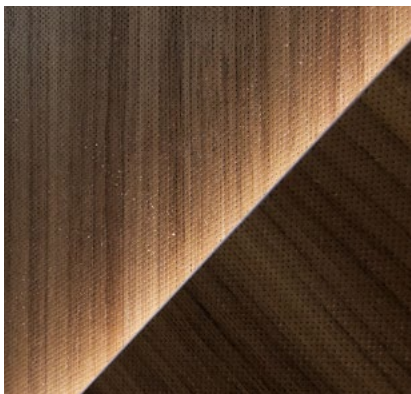
# Perfect sound meets *stylish design*

Our high-quality, efficient and flexible acoustic elements are ideal for the interior design and furniture construction sectors. With a wide variety of materials, structures and colours, our FineMicro line in particular offers unprecedented creative freedom and an almost endless range of uses. Whether as acoustic ceilings, wall panels or furniture that absorbs sound, every element we produce is certified, sustainable and, if requested, fire resistant. Our indoor acoustics solutions aren't just functional, they can also be aesthetically integrated into your architectural concept.

## FineMicro | FM

FineMicro is our high-performance sound absorber that meets the highest standards in aesthetics, acoustics and hygiene. The gridless structure with practically invisible perforation enables flexible planning while also ensuring that dust and dirt don't stand a chance. Whether as a decorative feature, projection screen or magnetic surface, FineMicro adapts perfectly to any idea. Suitable for fitting on either side, it is ideal for creating a sound-absorbing cupboard door or furniture front. FineMicro is available in board formats in all fire ratings.

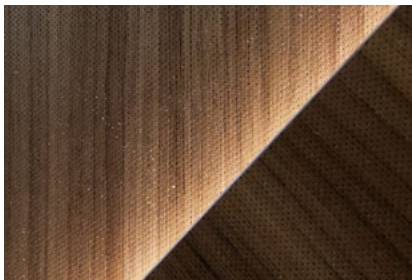
- Highest sound absorption across all frequencies
- Hygiene and sustainability
- Invisible perforation
- Simple planning thanks to gridless structure
- Available as panels or boards



*It takes 23  
minutes to fully  
re-focus following  
an acoustic  
disruption.*



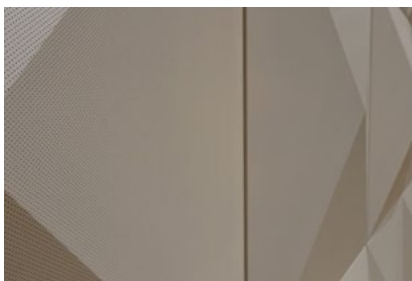
# Take room acoustics to a new level *with FineMicro cupboard fronts*



## Outstanding performance

For room acoustics that meet the highest standards.

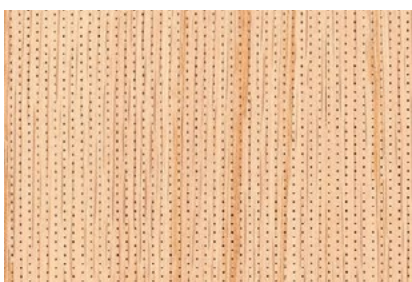
- High sound absorption across all frequencies
- Hygienic surfaces, wipeable on all sides
- No moiré effect, no irritation for the eyes



## Focused on individuality

For room acoustics that perfectly coordinate with your décor.

- Countless finishes
- Various colours and materials
- Cupboard fronts without format restrictions



## Perfect workmanship

For room acoustics that arrive ready to use.

- Fully assembled ready for installation
- No non-woven fabric, durable surfaces all round
- FineMicro exterior and interior
- Also suitable for retrofitting



## FineMicro FM 300 µm

### Substrate

MDF B2/B1-E1/FF

### Surface

CPL standard RAL9010/9016 or, depending on the collection, acsono, veneered or RAL/NCS lacquered

### Edges

ABS 1 mm or veneered

### Front thickness

19 mm

**Sound absorption** In accordance with EN 11654 aw 1.00(.) class A | measurement on cupboard front, cavity 500 mm, 70% folder filling

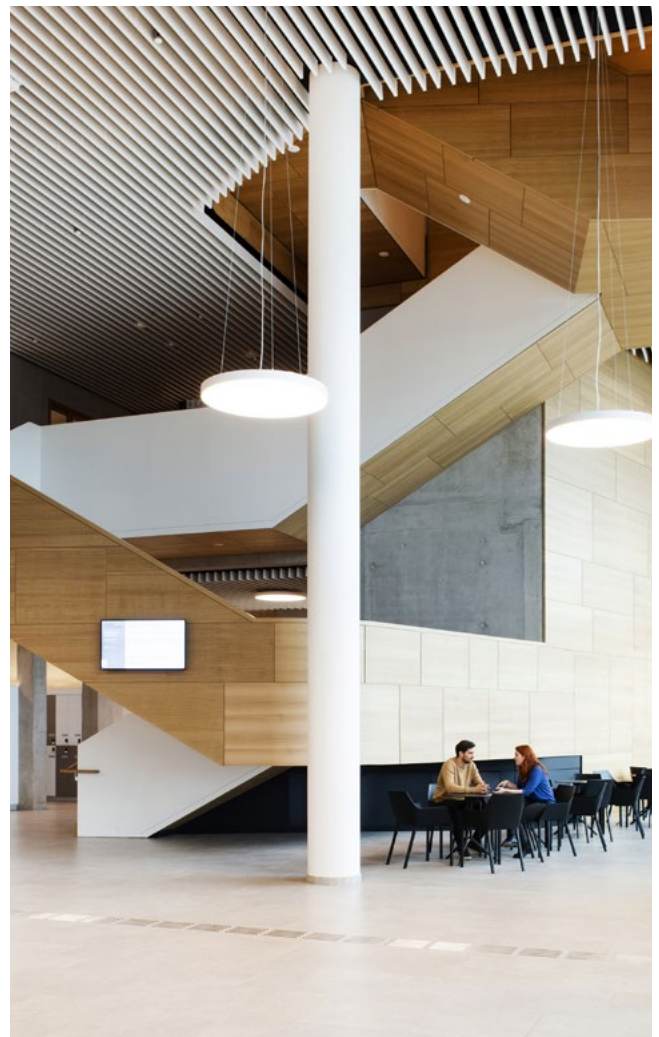
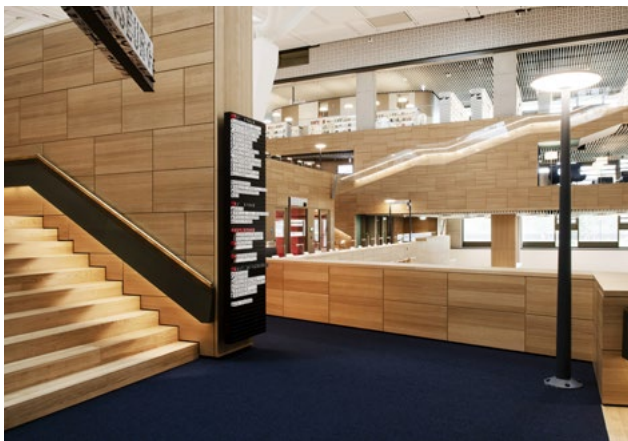
Be inspired  
*by our projects*



**École Musique, Carouge**  
FineMicro FM 300 µm  
Finish: real wood veneer  
European oak



**Realschule Gerlingen**  
FineMicro FM 300 µm  
Finish: real wood veneer  
European oak



**National Library of Luxembourg**  
 FineMicro FM 300 µm  
 Finish: real wood veneer  
 European oak



**Würenlingen nursery**  
FineMicro FM 300 µm  
Finish: real wood veneer  
Pine



**Rudolf-Steiner-Schule, Munich (theatre)**

FineMicro FM 300 µm  
Finish: real wood veneer  
European oak



**Grundschule Freiham II, Munich**  
FineMicro FM 300 µm  
Finish: real wood veneer  
European oak

# School *reference customers*

Aarwangen Schule Sonnhalde

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Augsburg St. Ursula Ganztagesklasse

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Bad Aibling St. Georg Grund- und Mittelschule

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Bayreuth MWG Gymnasium

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Beaufort, Luxembourg, Ecole Fondamentale

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Beilngries FSB Sonderpädagogisches Förderzentrum

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Biberach Wieland Gymnasium

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Biel Swatch Headquarters

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Böblingen Albert-Schweitzer Gymnasium

---

Deggendorf Schulzentrum

---

Derendingen Mitte

---

Diekirch Lycée Classique

---

Differdange Ecole Internationale

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Eichstätt Realschule – lift cladding

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Freising Grundschule St. Lantbert

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Freising SPS Steinpark schools

---

Friedberg Vinzenz Pallotti Schule

---

Gilsdorf Lycée Technique Agricole

---

Gross-Gerau Luise-Büchner-Schule

---

Hanau Karl-Rehbein Schule

---

Hanover LSoE Leibniz School of Education

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Hechingen Berufliches Schulzentrum

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Kandel Gesamtschule

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Karlsruhe Evangelische Jakobusschule

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Kestenholz Primarschule

---

Cologne Albertus Magnus Gymnasium

---

Cologne Kaiserin-Augusta-Schule

---

Leipzig Quartiersschule Ihmelsstraße

---

Leipzig Schule Stahmeln

---

Lenzburg Schule Bleicherain

---

Luxembourg Lycée Michel Rodange

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Mitterteich Grundschule

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Munich Asam-Gymnasium

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Munich BYS Bayernkaserne GS Helen-Wissel-Str.

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Munich ECP Luise-Kiesselbach-Fachschule

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Munich FBC Bildungscampus Freiham

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Munich PGA – Grundschule Paul-Gerhardt-Allee

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Munich Rupprecht-Gymnasium

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Munich Schule Bernaysstrasse

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Munich Trudering FM canteen

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Munich Werner-von Siemens-Gymnasium

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Neufahrn Neubau Grundschule II

---

Neustadt Gymnasium

---

Nuremberg Berthold-Brecht-Schule

---

Oberstdorf Grundschule

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Odelzhausen Schulzentrum Spreen Architekten

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Riem Bildungscampus Riem with sports park

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Rostock new Ulmenstrasse canteen

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Schondorf Wolfgang-Kubelka-Realschule

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Starnberg International School

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Thun Gymnasium

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Trostberg Realschule

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Waiblingen Salier-Gymnasium

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Weiterstadt Hessenwaldschule

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acsono

Sounds good?  
*Let's start your  
project together.*



Find out  
more

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**α** | swiss  
room  
acoustics