



**KNAUF**CEILING  
Solutions

**MINERAL  
SOLUTIONS**

**Build on us.**

## Contents

Experience More Innovation	4 – 5
Production Network	6 – 7
Acoustical Solutions for Every Space	8
Fire Performance	9
Healthy Interiors	10
Visual Comfort	11
Office	12 – 13
Education	14 – 15
Retail	16 – 17
Leisure & Hospitality	18 – 19
Healthcare & Hygiene	20 – 21
Transport	22 – 23
Design	24 – 43
MINERAL Baffle Element	26 – 27
MINERAL Baffle Element Arc	28 – 29
MINERAL Baffle Line L / N	30 – 31
MINERAL Sonic Element	32 – 33
MINERAL Sonic Line Arc	34 – 35
MINERAL Sonic Line	36 – 37
MINERAL Wallcoustic Element	38 – 39
MINERAL Wallcoustic Line	40 – 41
FABRIC Wallcoustic Line	42 – 43

Focus: VARIOLINE	44 – 55
VARIOLINE Motif	46 – 47
VARIOLINE Metal	48 – 49
VARIOLINE Wood	50 – 51
VARIOLINE Symetra	52 – 53
VARIOLINE Colour	54 – 55
Seamless Acoustic	56 – 59
ELEGANZA	58 – 59
ADAGIO Range	60 – 73
ADAGIO Acoustic*	62 – 63
ADAGIO Alpha*	64 – 65
ADAGIO dB*	66 – 67
ADAGIO HD* 19 mm	68 – 69
ADAGIO HD* 30 mm	70 – 71
ADAGIO HD* 35 mm	72 – 73
Healthcare & Hygiene	74 – 95
MEDIGUARD Alpha	76 – 77
MEDIGUARD Acoustic	78 – 79
MEDIGUARD Plain	80 – 81
HYGENA Aquatec	82 – 83
HYGENA Alpha	84 – 85
HYGENA Acoustic 15mm	86 – 87

# Experience More Innovation

HYGENA Plain	88 – 89
AMF THERMATEX® Aquatec	90 – 91
AMF THERMATEX® Thermaclean	92 – 93
NEWTONE	94 – 95
Smooth White Acoustic	96 – 135
AMF THERMATEX® Acoustic	98 – 99
AMF THERMATEX® Alpha	100 – 101
AMF THERMATEX® Alpha Colour	102 – 103
AMF THERMATEX® Alpha HD 19mm	104 – 105
AMF THERMATEX® Alpha HD 30mm	106 – 107
AMF THERMATEX® Alpha HD 35mm	108 – 109
AMF THERMATEX® Alpha ONE	110 – 111
AMF THERMATEX® dB Acoustic	112 – 113
AMF THERMATEX® Thermofon	114 – 115
AMF THERMATEX® Acoustic RL	116 – 117
AMF TOPIQ® Efficient Pro	118 – 119
AMF TOPIQ® Prime	120 – 121
ARMSTRONG PERLA	122 – 123
ARMSTRONG PERLA dB	124 – 125
ARMSTRONG PERLA OP 0.95	126 – 127
ARMSTRONG PERLA OP 1.00	128 – 129
ARMSTRONG PERLA OP 19mm	130 – 131

Antaris	132 – 141
Antaris C	134 – 135
Classic Sanded	136 – 145
AMF THERMATEX® Feinstratos	138 – 139
AMF THERMATEX® Feinstratos Micro	140 – 141
AMF THERMATEX® Feinstratos Micro Complete	142 – 143
ARMSTRONG DUNE Supreme	144 – 145
Classic Fissured/Perforated	146 – 161
Star 15mm	148 – 149
Star 19mm	150 – 151
Star Complete	152 – 153
AMF THERMATEX® Mercure	154 – 155
AMF THERMATEX® Mercure Complete	156 – 157
AMF THERMATEX® Feinfresko	158 – 159
ARMSTRONG FINE FISSURED	160 – 161
Classic Plain	162 – 165
PLAIN	164 – 165
Fire Performance – System UNO 30	166 – 167
Acoustic Technical Glossary	168 – 169
Definitions of Technical Performance Icons	170 – 171



# Experience More Innovation

## **With functional, natural and sustainable mineral solutions**

We believe that the ceiling is an integral part of every interior space. It helps give us a wonderful sense of well-being and safety. A seamless connection between form and function, it enhances and protects the spaces in which we live, work, recover and grow. It balances acoustics, provides healthy air to breathe and influences how we think and feel.

Ultimately, it is our customers who create the perfect space using our solutions. To help them realise more exciting visions, two of the world's most recognised ceiling manufacturers have combined strengths to offer the best of both in one market-leading brand – Knauf Ceiling Solutions.

Spectacular projects can only become reality if the possibilities between functionality and design live in harmony. Our new harmonised Mineral Solutions range enables customers endless varieties of sizes, shapes and edge designs in all system layouts. The high-quality mineral tiles are produced in a wet-felt tile process that uses natural, sustainable raw materials, including biosoluble mineral wool, perlite, clay and starch.

By embodying the best of both worlds and building on our long-standing experience, Knauf Ceiling Solutions is setting the standard for safety, comfort, efficiency and performance. With a boundless multi-material approach that enables you to experience more choice, more inspiration and more support, to help find the unique solution you're looking for.

# Production Network

## Experience our large and comprehensive network

Through the local presence of nine state-of-the-art production facilities in six countries across Europe and Asia, we are able to deliver high-quality ceiling solutions on time. In order to provide our customers consistent and reliable supply processes, we rely on our proven production values that meet the highest standards worldwide in quality, environment and safety.



### EMEA

**01 Grafenau (DE)**  
Mineral & Grid

**02 Pontarlier (FR)**  
Mineral

**03 Valenciennes (FR)**  
Grid

**04 Dreux (FR)**  
Grid

**05 Ferndorf (AT)**  
Wood Wool

**06 Rankweil (AT)**  
Metal

**07 Antwerp (BE)**  
Slitting



### APAC

**08 Wujiang (CN)**  
Mineral & Grid

**09 Pune (IN)**  
Grid



# Acoustical Solutions for Every Space

## Meet all expectations of acoustical comfort with Knauf Ceiling Solutions

Knauf Ceiling Solutions provide three densities of ceiling tiles to achieve high absorption, high attenuation or a good balance between the two of to meet all requirements in every space.



### Balanced Acoustics

Standard range provides a unique combination of good sound absorption and sound attenuation that enhance intelligibility for workplace effectiveness.

Speech intelligibility addresses the need for comprehension of verbal communication whether naturally spoken or broadcast by an amplified system, within a given space.

Intelligibility can be expressed as the difference in decibels between the level of speech and the background noise (signal to noise ratio) as heard at the listener's position.

To ensure excellent intelligibility, this difference at the listeners position is recommended to be 10-15 dB minimum for people with good hearing and 20-30 dB for hearing impairing of users of headsets.

### High Attenuation

Our dB range offers excellent sound attenuation and good sound absorption that enhances privacy and confidentiality.

Speech privacy is a measure for defining the degree to which conversation cannot be overheard.

For good privacy between adjacent spaces, it's necessary to focus on room-to-room sound attenuation and the background noise level.

### High Absorption

Products with high absorption levels are recommended when concentration is needed. They dramatically improve the acoustic comfort in open spaces, call centres, etc.

Concentration can be disturbed by different types of noise, such as other peoples' voices, phones ringing, ventilation, keyboard, equipment, impacts, road and air traffic...

Intrusive noise will disturb concentration and therefore needs to be considered as another key factor in the design of the acoustical environment.

# Fire Performance

## Structural Fire Protection

Throughout Europe, there is a requirement for a building's structure to be protected from fire. This is primarily for the structure to remain stable during a fire to allow the occupants to escape and also to enable fire fighters to work without threat of the building's collapse.

The duration of the required protection will usually depend upon the height of, and location within, the building (i.e. typical floor, basement, roof construction etc), whether there is any active methods of fire protection (sprinklers etc.) and the type of construction to be protected (steel beams, timber or mezzanine floors etc). In the case of structural fire protection, the suspended ceiling is classified together with the soffit and the complete construction.

Knauf Ceiling Solutions ceilings achieve building component classifications of REI30 to REI120, depending on the type of soffit. Regular fire testing is carried out to ensure the highest up to date system quality and built in safety for our customers.

## Independent Fire Resistance

Independent fire rated ceilings provide fire protection both from above (ceiling void) as well as from the underside of the ceiling. Fittings, such as lighting, loudspeakers and signage etc. as well as the connection to light-weight partition systems, bulkheads etc. are tested and classified as well.

## Fire Reaction

Fire reaction performance for suspended ceilings is shown using the Euroclass fire reaction classification. Most Knauf Ceiling Solutions products are reaching A2-s1,d0 acc. to EN 13501-1. For more information, please contact us or visit [www.knaufceilingsolutions.com](http://www.knaufceilingsolutions.com).



# Healthy Interiors

## In certain indoor spaces such as laboratories

It is essential to limit the number of airborne particles by creating a Clean Room type environment using products certified in accordance with ISO 14644-1.

Knauf Ceiling Solutions offers solutions for areas requiring minimal to the most stringent requirements.



© Frederic Schweizer

Achieving the right acoustics for specific rooms is recognised in LEED®, BREEAM, HQE, DGNB, WELL Building Standard.

## Challenge

The World Health Organization reports that 30% of new and renovated buildings receive excessive complaints related to indoor air quality.

In addition, poor air quality, and elevated temperatures consistently lowered employee performance by up to 10%.

## Solution

Knauf Ceiling Solutions:

- achieve low or very low VOC and formaldehyde emission levels.
- have all been classified E1 for formaldehyde (best test result possible)
- for a large majority, achieve A+ (the best performance level under the stringent French VOC labelling system)

# Visual Comfort

## Challenge

The light reflectance of the ceiling, floor and wall surfaces play the second most important role for overall illumination of the room, directly affecting working comfort, wellbeing and productivity.

## Solution

Specified high light reflectance ceilings contribute to LEED®, BREEAM, HQE, DGNB and Well Building Standard credits.

A well-designed ceiling with high light reflectance:

- Improves space illumination, allowing for fewer light fixtures
- Reduces electrical light output and lowers maintenance costs
- Reduces cooling load

High light reflectance ceilings reflect up to 87% of the light back into the space.

Rafts and canopy ceilings installed over a working place improve the light reflection for better comfort for the end-user.



© Szymon Polański



## Cradle To Cradle Certified®

The Cradle to Cradle Certified® Products Programme has been developed to meet growing customer demand for sustainable products, with C2C certification already becoming a requirement for building projects in the United States and Europe. It adds value to a project and helps protect and sustain our environment for future generations by keeping resources in the economy for longer. Cradle to Cradle Certified® products are recognised LEED® and WELL Building Standard.



## *Workplaces that Work Better*

## **OFFICE**

Over our lifetimes, the average person spends around 90,000 hours in the workplace. It's our responsibility to make these spaces better for everyone.

This isn't just about happiness — even if happier workers are better workers. It's about wellbeing in the workplace. Wellbeing boosts productivity. It improves performance, reduces stress and contributes to a work-life balance that brings out the best in people. And one of the ways we can promote wellbeing in the workplace is through design.

By considering aesthetics, light, shade and zoning, intelligent design can transform even the most uniform open-plan office into a vibrant, dynamic space that balances contemporary architecture and statement design with visual and acoustic comfort that measurably enhances wellbeing and happiness, productivity and performance.

Even beyond these considerations, the principles we use in enabling great office design can create more functionally effective spaces for working. Spaces for close collaboration and quiet concentration; spaces that keep conversations private, or open the floor to discussion and debate — and spaces that aid focus while inspiring workers and visitors alike. This is our task, our responsibility and our opportunity, together, to create workspaces that work better.

## EDUCATION

Having an education that will last a lifetime is down to outstanding, inspirational teachers that deliver learning with knowledge and passion – but these tutors need the right spaces in which to do this.

Schools, colleges and universities are complex ecosystems and the buildings that house them need to take this into account. They encompass everything from focussed classrooms, quiet study areas to sweeping auditoria and lecture theatres, sound studios and common rooms. Each space has its own requirements and intricacies – but all need to optimise the learning experience.

So, what does this take? It takes careful consideration of architectural zoning, and how each space works individually and as part of the ecosystem. It takes a balance of acoustic performance and visual comfort – where tutors can be heard clearly at the back of the class, and where students can concentrate on their work.

Above all, however, it takes an awareness, sensitivity and commitment to creating a safe, healthy and peaceful environment for education to thrive, and a dedication to creating spaces as inspiring as the teaching within them.



© Studio Maggi/Moreno Maggi

*Create Spaces  
to Inspire*



# Shaping the Retail Experience

## RETAIL

The path to purchase is never straightforward. There's a world of factors along the way that can sway a decision. And a major one of these is the retail environment – and the experience it creates.

Whether it's a supermarket or convenience store, shopping mall or showroom, food court or fashion boutique, the design of a retail space is integral to the shopper experience – and we should treat this experience like any other we'd desire to have. It should be comfortable and easily navigable, but it should also surprise, excite, entertain and entice.

The materials, technologies and techniques we use to create our retail environments are vital for making this happen. Visually arresting design features; playful manipulation of light and shade, colour and shape; bright, open and airy room plans; intuitive pathways, and acoustically comfortable, unintimidating spaces to encourage customer interaction and streamline the sales process. All of these play their part in a positive shopper experience.

By blending functionality with flair, great design doesn't just breathe fresh life into brands in the real world – it shapes a retail experience that people will enjoy, share and remember.

## LEISURE & HOSPITALITY

Rest and relaxation is crucial for everyone's way of life – especially as everyone's way of life is different. But whatever people get up to in their downtime, their leisure spaces should be as enriching as their pastimes.

Sometimes, it's all about high-tempo sports or hitting the gym. Other times, it's dining out, heading away for a hotel stay, or simply taking in a film at the cinema. There's a huge variety of spaces in which we spend our free time, but all of them share one requirement for design and architecture: creating the right atmosphere to enhance quality of life.

This might take the form of maintaining the right acoustical balance to focus viewers on the movie. It might be flooding fitness studios with light while keeping an effective thermal performance and maximising humidity resistance. Or, it might be designing a hotel as part of a multi-use building in which statement design atria and lobbies give way to cosy, comfortable guest rooms.

For every architectural challenge in leisure and hospitality spaces, there's an idea to help you achieve it – a solution to make your work easier and more effective. Because, let's face it, everyone deserves a little relaxation.



© Dion de Bakker

*Make Yourself  
at Home*



## Creating Safe Spaces

## HEALTHCARE & HYGIENE

Healthcare places huge demands on architecture – no matter if it's a waiting room in a local surgery or the intense environment of the operating theatre. In every space, there's a host of considerations critical to lives.

The most vital element is, of course, creating a space that's conducive to healthcare – hygienically clean, performing at the anti-microbial level, using materials and technologies that enhance indoor air quality and minimise emissions, and safeguarding patients and caregivers alike through robust fire protection.

Going beyond this, it's our responsibility to design environments that actively aid the healing process. Given the proven importance of natural light to wellbeing, it's imperative that our healthcare spaces are bright and open, with high levels of light reflectance that makes the most of window space. Acoustically, too, these spaces need to absorb and attenuate noise, providing the peace, quiet and tranquillity for people to rest and recover.

Ultimately, healthcare environments need to be perfectly attuned to their purpose, functionally and aesthetically. Clean and simple, bright and welcoming, calm and comfortable. Everything it takes for doctors to perform and patients to recover – and all the ingredients to create the perfect spaces for healing.

## TRANSPORT

Our world is always in motion – billions of people travelling from city to city, continent to continent. And the buildings in which they arrive and depart need to play their part in making every journey better.

From airport departure lounges to train station concourses, from the food court through to the platform, the architecture of transportation is a journey. Ceilings, walls and floors are travellers' companions; the first and last things they'll see in any location, the backdrops to meetings and partings – and a crucial part of people's journeys.

So, we should approach these buildings rationally and emotionally. They need to be functional, to guide travellers to gates, lounges and platforms. They need to be clean, maintainable and durable to cope with the footfall of millions every day. But they also need to be calming and welcoming; tranquil, peaceful places that encourage exploration.

To this end, we need to transform the dark tunnels and cavernous lobbies that once characterised transport hubs into bright, open and desirable spaces, concealing the noise and passage of crowds to make people feel comfortable. And all of this while using design to make an impression – to create spaces that move people, physically and emotionally.



© Szymon Polanski

*Architecture that  
Moves People*



## DESIGN

In a world where image is everything, our flexible ceiling solutions inspire you to create stunning aesthetics and intimate spaces. An endless array of dramatic design possibilities with baffles, canopies, wall absorbers and accessories that can be easily installed and relocated without further modification. Exposed surfaces that absorb sound to enhance acoustics, while reflecting up to 87% of light to make brighter, energy efficient spaces. And seamless, monolithic floating ceilings that add colour, shape, depth, scale and rhythm to contemporary building design.



© Sergiy Kadulin Photography

*Creativity, Design  
and Diversity*



© Sergiy Kadulin Photography

## Vertical Baffle Systems MINERAL Baffle Element Individual / Grouped



LUCRON Seinerka Business Centre, Slovakia (© BoysPlayNice)

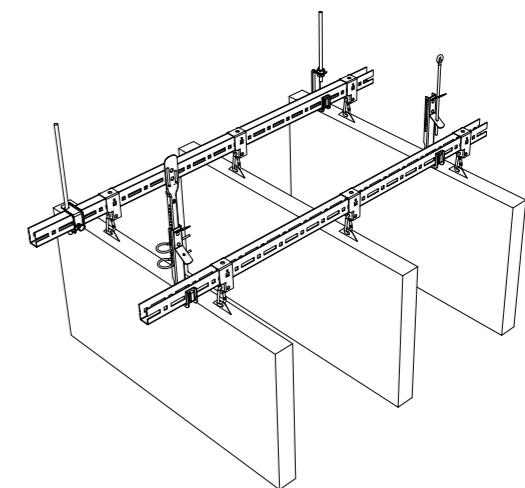
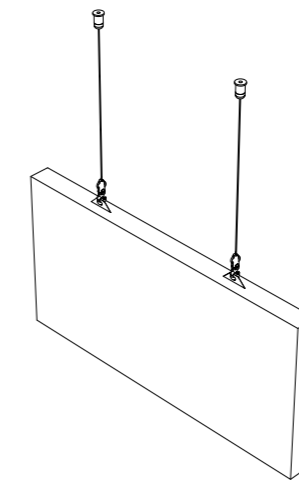
MINERAL Baffle Element is a range of high performance acoustical baffles with a white laminate surface for a modern linear appearance.

- Good sound absorption: reduce noise levels, increase intelligibility and reduce reverberation time in a space
- Typically used to provide high levels of acoustic absorption in offices, leisure centres, transport hubs, etc

### MINERAL Baffle Element

Individual / Grouped

Characteristic	Detailed information															
Thickness (mm)	39	Additional dimensions available on request														
Dimensions (mm)	1200 x 300 1200 x 400	1800 x 300 1800 x 400														
System	Hanging Wire Kit U Profile grouping option T Grid grouping option															
Weight	1200 x 300: <b>3.8 kg / pc</b> 1200 x 400: <b>5.0 kg / pc</b>	1800 x 300: <b>5.6 kg / pc</b> 1800 x 400: <b>7.5 kg / pc</b>														
Colour & design	<b>Vario Design Colours</b> White  Granite  Steel  Green Marble  Copper  Oak  Brass  Sandstone  Concrete															
Sound absorption	EN ISO 354 $\alpha_w = 0.50(MH)$ (300mm) as per EN ISO 11654 <b>Frequency f (Hz)</b> <table border="1"> <tr> <td></td> <td>125</td> <td>250</td> <td>500</td> <td>1000</td> <td>2000</td> <td>4000</td> </tr> <tr> <td>Baffles 1200 x 300mm</td> <td>0.15</td> <td>0.25</td> <td>0.45</td> <td>0.90</td> <td>0.90</td> <td>0.95</td> </tr> </table> Baffles 1200 x 300mm $\alpha_p$ Row distances 300mm NRC = <b>0.65</b> (300mm) as per ASTM C 423			125	250	500	1000	2000	4000	Baffles 1200 x 300mm	0.15	0.25	0.45	0.90	0.90	0.95
	125	250	500	1000	2000	4000										
Baffles 1200 x 300mm	0.15	0.25	0.45	0.90	0.90	0.95										
Fire reaction	Euroclass <b>A2-s1,d0</b> as per EN 13501-1															
Humidity resistance	<b>90%</b>															
Indoor air quality	A+  E1  IACG															
Cleanability																
Sustainability																



<sup>vi</sup> Options with this icon are available from our Vario Design range. Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## Vertical Baffle Systems MINERAL Baffle Element Arc Individual / Grouped



Ivanja Reka Primary School, Croatia (© Jakub Joachim)

With MINERAL Baffle Element Arc you can create exciting interiors without compromising acoustic performance, even with modern exposed soffit ceilings

- Modern curved appearance
- Reduce noise levels, increase speech intelligibility and reduce reverberation time in the space
- Install individually or in groups
- Typically used in schools, offices, leisure centres, transport hubs, etc.

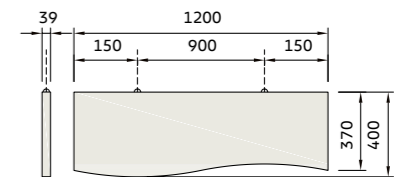
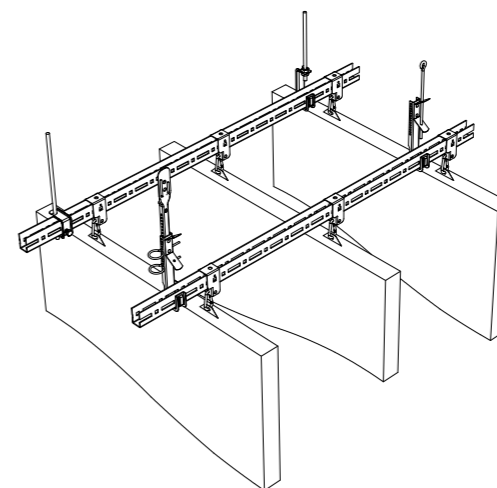
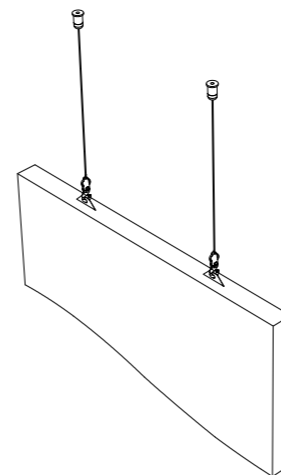
**Build on us.**

### MINERAL Baffle Element Arc

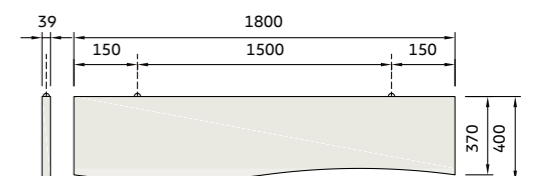
Individual / Grouped

Characteristic	Detailed information															
Thickness (mm)		39														
Dimensions (mm)		1200 x 400 1800 x 400 <span style="float: right;">Additional sizes on request</span>														
System	Hanging Wire Kit U-Profile grouping option T-Grid Main Runner grouping option															
Weight		1200 x 400: <b>5.0 kg/pc</b> 1800 x 400: <b>7.5 kg/pc</b>														
Colour & design		<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"></div> <div style="margin-right: 10px;"></div> <div style="margin-right: 10px;"></div> <div style="margin-right: 10px;"></div> <div style="margin-right: 10px;"></div> <div style="margin-right: 10px;"></div> <div style="margin-right: 10px;"></div> <div style="margin-right: 10px;"></div> <div style="margin-right: 10px;"></div> </div> <p><b>vario</b> Vario Design Colours</p>														
Sound absorption		EN ISO 354 <span style="margin-left: 20px;"><math>\alpha_{w} = 0.50(\text{MH})</math> (300mm) as per EN ISO 11654</span> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td><math>\alpha_p</math> Row distances 300mm</td> <td>0.15</td> <td>0.25</td> <td>0.45</td> <td>0.90</td> <td>0.90</td> <td>0.95</td> </tr> </tbody> </table> NRC = <b>0.65</b> as per ASTM C 423	Frequency f (Hz)	125	250	500	1000	2000	4000	$\alpha_p$ Row distances 300mm	0.15	0.25	0.45	0.90	0.90	0.95
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Fire reaction		Euroclass <b>A2-s1,d0</b> as per EN 13501-1														
Humidity resistance		<b>90%</b>														
Indoor air quality		<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> A+</div> <div style="text-align: center;"> E1</div> <div style="text-align: center;"> IACG</div> </div>														
Cleanability																
Sustainability		 <small>RECYCLABLE WOOL</small> <small>BC 1272/2020 Annex G</small>														

#### MINERAL Baffle Element Arc



Module 1200 x 400 mm



Module 1800 x 400 mm

vario Options with this icon are available from our Vario Design range. Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## Vertical Baffle Systems

# MINERAL Baffle Line L/N

Individual / Grouped  
(only MINERAL Baffle Line L)



MINERAL Baffle Line L and Line N features an aluminium frame and white laminate surface for a modern linear appearance. MINERAL Baffle Line L and Line N are also available in a variety of colours or customised graphic prints on request
























- Good sound absorption: reduce noise levels, increase intelligibility and reduce reverberation time in a space
- Typically used to provide high levels of acoustic absorption in offices, leisure centres, transport hubs, etc

**Build on us.**

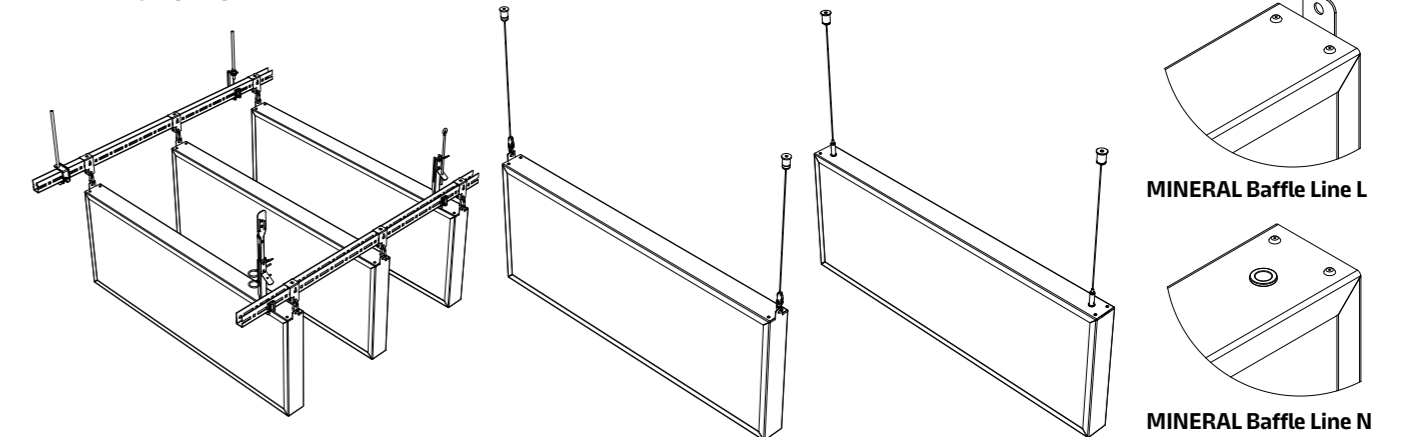
## Vertical Baffle Systems

### MINERAL Baffle Line L/N

Individual / Grouped (only MINERAL Baffle Line L)

Characteristic	Detailed information															
Thickness (mm)	 50															
Dimensions (mm)	 1200 x 300 1200 x 400	1800 x 300 1800 x 400 <small>Additional sizes on request</small>														
System	 MINERAL Baffle Line N - wire hanger with top screw thread MINERAL Baffle Line L - wire hanger with tab connector MINERAL Baffle Line L - U-Profile and carabiner with tab connector															
Weight	 1200 x 300: <b>3.2 kg/pc</b> 1200 x 400: <b>4.1 kg/pc</b>	1800 x 300: <b>4.7 kg/pc</b> 1800 x 400: <b>6.0 kg/pc</b>														
Colour & design	 <b>Frame:</b> Anodised Aluminium, White, Colours  <b>Vario Design Colours</b>  White  Granite  Steel  Green Marble  Copper  Oak  Brass  Sandstone  Concrete <b>Motif:</b> Custom Graphic Print															
Sound absorption	 EN ISO 354 $\alpha_w = 0.60(\text{MH})$ (300mm) as per EN ISO 11654 <b>Frequency f (Hz)</b> Baffles 1200 x 300mm $\alpha_p$ Row distances 300mm NRC = <b>0.65</b> as per ASTM C 423 <table border="1"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td><math>\alpha_p</math></td> <td>0.35</td> <td>0.40</td> <td>0.55</td> <td>0.90</td> <td>0.90</td> <td>0.90</td> </tr> </tbody> </table>		Frequency f (Hz)	125	250	500	1000	2000	4000	$\alpha_p$	0.35	0.40	0.55	0.90	0.90	0.90
Frequency f (Hz)	125	250	500	1000	2000	4000										
$\alpha_p$	0.35	0.40	0.55	0.90	0.90	0.90										
Fire reaction	 Euroclass <b>A2-s1,d0</b> as per EN 13501-1															
Light reflectance	 <b>88%</b>															
Humidity resistance	 <b>90%</b>															
Cleanability	 															
Sustainability	 <b>BIOBLENDE WOOD</b>  <b>ICC 1272/2008 Annex G</b>															

#### MINERAL Baffle Line L



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## Floating Canopy Systems MINERAL Sonic Element Individual / Grouped



Stanley Black & Decker, Poland, © Szymon Polański

MINERAL Sonic Element is a frameless and jointless ceiling raft.

- It benefits from a fully colour coated face and reverse laminate fleece
- The monolithic ceiling raft design offers excellent sound absorption properties and when installed gives the appearance of a free floating ceiling cloud

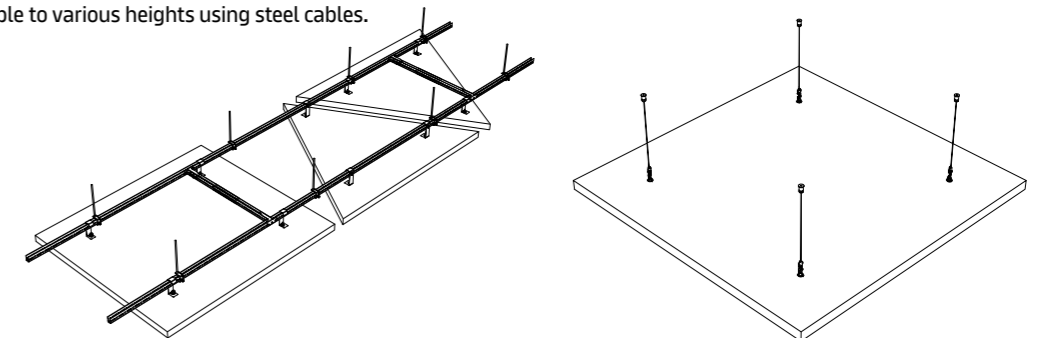
**Build on us.**

### MINERAL Sonic Element

Individual / Grouped

Characteristic	Detailed information																																											
Thickness (mm)		40																																										
Dimensions (mm)		<table border="0"> <tr> <td>Trapezoid</td> <td>1180 x 870</td> <td>Rectangle</td> <td>1780 x 1180</td> </tr> <tr> <td>Hexagon</td> <td>1363 x 1180</td> <td>Rectangle</td> <td>2380 x 1180</td> </tr> <tr> <td>Left Parallelogram</td> <td>1180 x 1180</td> <td>Circle</td> <td>Ø800</td> </tr> <tr> <td>Right Parallelogram</td> <td>1180 x 1180</td> <td>Circle</td> <td>Ø1200</td> </tr> <tr> <td>Square</td> <td>800 x 800</td> <td>Circle</td> <td>Ø1600</td> </tr> <tr> <td>Square</td> <td>1180 x 1180</td> <td>Convex</td> <td>1170 x 1170</td> </tr> <tr> <td>Rectangle</td> <td>1180 x 580</td> <td>Concave</td> <td>1170 x 1020</td> </tr> <tr> <td>Rectangle</td> <td>1780 x 880</td> <td>Triangle</td> <td>1180 x 1022</td> </tr> </table> <p style="text-align: right; font-size: small;">Additional sizes on request</p>	Trapezoid	1180 x 870	Rectangle	1780 x 1180	Hexagon	1363 x 1180	Rectangle	2380 x 1180	Left Parallelogram	1180 x 1180	Circle	Ø800	Right Parallelogram	1180 x 1180	Circle	Ø1200	Square	800 x 800	Circle	Ø1600	Square	1180 x 1180	Convex	1170 x 1170	Rectangle	1180 x 580	Concave	1170 x 1020	Rectangle	1780 x 880	Triangle	1180 x 1022										
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System		Individual: Wire Hanger Grouped: U-Profile																																										
Weight		<b>6.0 kg/m<sup>2</sup></b>																																										
Colour & design		<p><b>Vario Design Colours</b></p> <table border="0"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>White</td> <td>Granite</td> <td>Steel</td> <td>Green Marble</td> <td>Copper</td> <td>Oak</td> <td>Brass</td> <td>Sandstone</td> <td>Concrete</td> </tr> </table>										White	Granite	Steel	Green Marble	Copper	Oak	Brass	Sandstone	Concrete																								
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Sound absorption		<p>EN ISO 354</p> <table border="1"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td><b>Equivalent Absorption Area Aobj*</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Square: 1180 x 1180mm / Suspension height 190mm</td> <td>0.40</td> <td>1.20</td> <td>2.20</td> <td>2.40</td> <td>2.40</td> <td>2.30</td> </tr> <tr> <td>Rectangle: 1780 x 1180mm / Suspension height 190mm</td> <td>0.80</td> <td>2.10</td> <td>3.10</td> <td>3.30</td> <td>3.50</td> <td>3.40</td> </tr> <tr> <td>Rectangle: 2380 x 1180mm / Suspension height 190mm</td> <td>0.80</td> <td>2.70</td> <td>4.20</td> <td>4.40</td> <td>4.50</td> <td>4.30</td> </tr> <tr> <td>Circle: Ø1200mm / Suspension height 150mm</td> <td>0.40</td> <td>1.00</td> <td>1.70</td> <td>1.80</td> <td>2.00</td> <td>1.90</td> </tr> </tbody> </table> <p style="text-align: right; font-size: x-small;">*Values shown are the average of the 3 one third octave band values</p>	Frequency f (Hz)	125	250	500	1000	2000	4000	<b>Equivalent Absorption Area Aobj*</b>							Square: 1180 x 1180mm / Suspension height 190mm	0.40	1.20	2.20	2.40	2.40	2.30	Rectangle: 1780 x 1180mm / Suspension height 190mm	0.80	2.10	3.10	3.30	3.50	3.40	Rectangle: 2380 x 1180mm / Suspension height 190mm	0.80	2.70	4.20	4.40	4.50	4.30	Circle: Ø1200mm / Suspension height 150mm	0.40	1.00	1.70	1.80	2.00	1.90
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Light reflectance		Up to <b>88%</b>																																										
Humidity resistance		<b>90%</b>																																										
Indoor air quality		<table border="0"> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>A</td> <td>E1</td> <td>IAC</td> </tr> </table>				A	E1	IAC																																				
A	E1	IAC																																										
Cleanability/Sustainability		<table border="0"> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>EC 1272/2008 Annex O</td> </tr> </table>						EC 1272/2008 Annex O																																				
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Flexible design and adjustable to various heights using steel cables.



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## Floating Canopy Systems MINERAL Sonic Line Arc Individual



Ursulinengymnasium Würzburg, Germany, © Rolf Nachbar


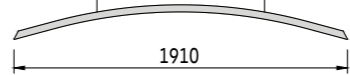
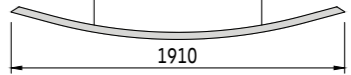





















Create unique, elegant designs with an array of MINERAL Sonic Line Arc concave and convex canopies

- Play with custom colours to create exciting contrasting effects
- MINERAL Sonic Line Arc allows you express your creativity and accentuate an area using new spacial effects

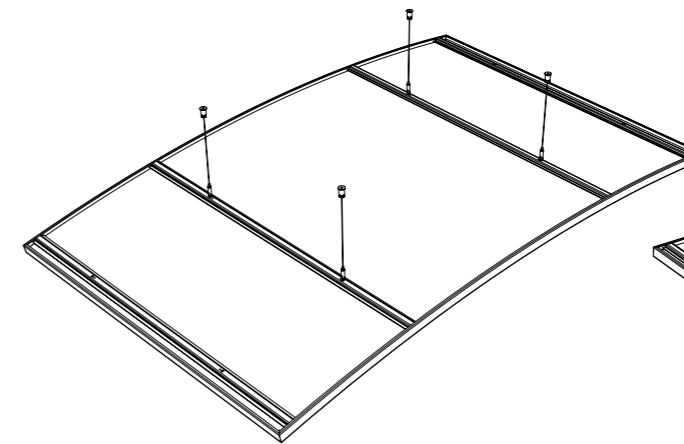
**Build on us.**

### MINERAL Sonic Line Arc

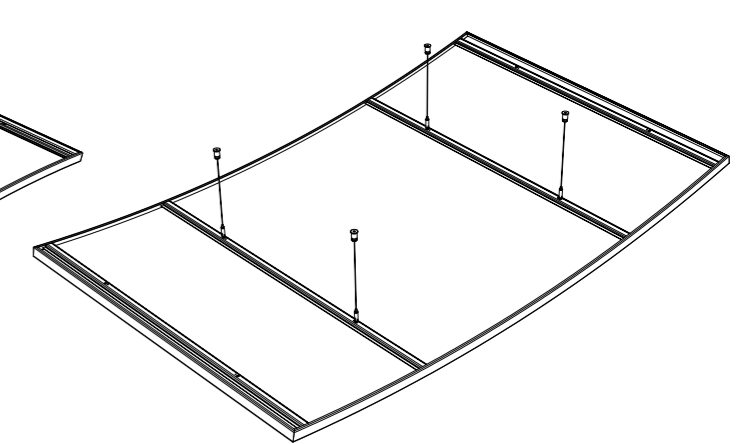
Individual

Characteristic	Detailed information															
Edge details		<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>MINERAL Sonic Line Arc Concave</b></p>  <p>1910</p> </div> <div style="text-align: center;"> <p><b>MINERAL Sonic Line Arc Convex</b></p>  <p>1910</p> </div> </div>														
Thickness (mm)		35														
Dimensions (mm)		1910 x 1180														
System		Wire Hanger														
Weight		<b>16.0 kg/pc</b>														
Colour & design		<p><b>Vario Design Colours</b></p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  <p>White</p> </div> <div style="text-align: center;">  <p>Granite</p> </div> <div style="text-align: center;">  <p>Steel</p> </div> <div style="text-align: center;">  <p>Green Marble</p> </div> <div style="text-align: center;">  <p>Copper</p> </div> <div style="text-align: center;">  <p>Oak</p> </div> <div style="text-align: center;">  <p>Brass</p> </div> <div style="text-align: center;">  <p>Sandstone</p> </div> <div style="text-align: center;">  <p>Concrete</p> </div> </div>														
Sound absorption		<p>EN ISO 354</p> <table border="1"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td>Equivalent Absorption Area Aobj*</td> <td>0.40</td> <td>1.60</td> <td>2.40</td> <td>2.70</td> <td>3.20</td> <td>3.40</td> </tr> </tbody> </table> <p>Square: 1180 x 1180mm / Suspension height 190mm</p> <p><small>*Values shown are the average of the 3 one third octave band values</small></p>	Frequency f (Hz)	125	250	500	1000	2000	4000	Equivalent Absorption Area Aobj*	0.40	1.60	2.40	2.70	3.20	3.40
Frequency f (Hz)	125	250	500	1000	2000	4000										
Equivalent Absorption Area Aobj*	0.40	1.60	2.40	2.70	3.20	3.40										
Fire reaction		Euroclass <b>A2-s1,d0</b> as per EN 13501-1														
Light reflectance		Up to <b>88%</b>														
Humidity resistance		<b>90%</b>														
Cleanability/ Sustainability	  	<p>WOLVULITE WOOL</p> <p>ISO 14001:2015 Annex G</p>														

MINERAL Sonic Line Arc Concave



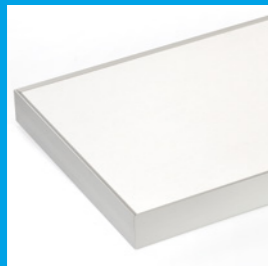
MINERAL Sonic Line Arc Convex



Ceiling rafts are delivered in one piece making them quick and easy to install. Flexible design and adjustable to various heights using steel cables.

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## Floating Canopy Systems MINERAL Sonic Line Individual



Sports Centre Viding Alcántara, Madrid, Spain © Victor Sajara Photography

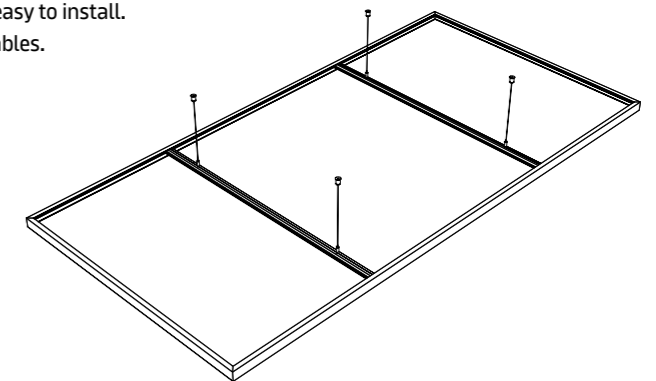
MINERAL Sonic Line is a ceiling raft with an aluminium frame. The flexible suspension with fine, steel cables enables the height to be individually adjusted as required

- Available with a standard white laminate surface and can be customised in a variety of colours or bespoke printed motifs on request
- Aesthetically defines spaces in schools, offices leisure centres, retail spaces etc.

**Build on us.**

Characteristic	Detailed information																													
Thickness (mm)		43																												
Dimensions (mm)		1200 x 600 1200 x 1200 1800 x 1200 2400 x 1200																												
System		Wire Hanger																												
Weight		1200 x 600: <b>5.0 kg/pc</b> 1200 x 1200: <b>10.0 kg/pc</b> 1800 x 1200: <b>15.0 kg/pc</b> 2400 x 1200: <b>20.0 kg/pc</b>																												
Colour & design		<p><b>Frame:</b> Anodised Aluminium, White, Colours</p> <p> <b>Vario Design Colours</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> White</div> <div style="text-align: center;"> Granite</div> <div style="text-align: center;"> Steel</div> <div style="text-align: center;"> Green Marble</div> <div style="text-align: center;"> Copper</div> <div style="text-align: center;"> Oak</div> <div style="text-align: center;"> Brass</div> <div style="text-align: center;"> Sandstone</div> <div style="text-align: center;"> Concrete</div> </div> <p><b>Motif:</b> Custom Graphic Print</p>																												
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Humidity resistance		<b>90%</b>																												
Cleanability/ Sustainability																														

Ceiling rafts are delivered in one piece making them quick and easy to install. Flexible design and adjustable to various heights using steel cables.



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## Wall Systems MINERAL Wallcoustic Element Individual / Grouped



Bishopsgate Institute, United Kingdom © 2010 Philip Durrant Photography

MINERAL Wallcoustic Element is a frameless and jointless wall absorber. It also benefits from a fully colour coated face and reverse laminate fleece

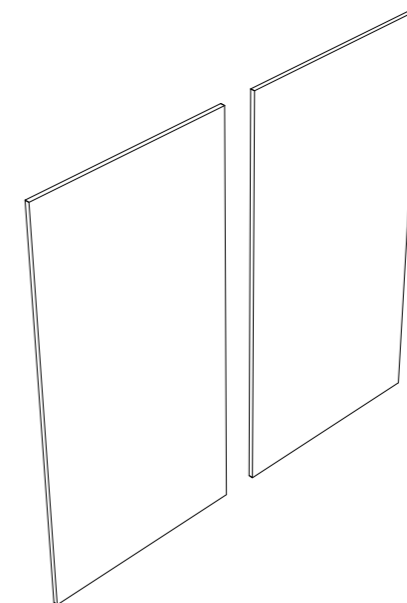
- The monolithic wall absorber offers excellent sound absorption properties and endless design possibilities for ambitious architects, who seek to raise the visual and acoustic quality of interior spaces
- The wall panel is delivered in one piece and is quick and easy to install using spiral anchors and wall brackets

**Build on us.**

### MINERAL Wallcoustic Element

Individual / Grouped

Characteristic	Detailed information																													
Thickness (mm)		40																												
Dimensions (mm)		Square 1180 x 1180 Square 800 x 800 Rectangle 1180 x 580 Rectangle 1780 x 880 Rectangle 1780 x 1180 Additional sizes on request																												
System		Spiral anchor Wall brackets																												
Weight		<b>6.0 kg/m<sup>2</sup></b>																												
Colour & design		<b>Vario Design Colours</b> White Granite Steel Green Marble Copper Oak Brass Sandstone Concrete																												
Sound absorption		EN ISO 354 <table border="1"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td><b>Equivalent Absorption Area Aobj*</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Square: 1180 x 1180mm / Suspension height 190mm</td> <td>0.40</td> <td>1.20</td> <td>1.90</td> <td>1.90</td> <td>1.90</td> <td>1.80</td> </tr> <tr> <td>Rectangle: 1780 x 1180mm / Suspension height 190mm</td> <td>0.50</td> <td>1.70</td> <td>2.70</td> <td>2.80</td> <td>2.80</td> <td>2.60</td> </tr> </tbody> </table> *Values shown are the average of the 3 one third octave band values	Frequency f (Hz)	125	250	500	1000	2000	4000	<b>Equivalent Absorption Area Aobj*</b>							Square: 1180 x 1180mm / Suspension height 190mm	0.40	1.20	1.90	1.90	1.90	1.80	Rectangle: 1780 x 1180mm / Suspension height 190mm	0.50	1.70	2.70	2.80	2.80	2.60
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Cleanability/ Sustainability																														



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## Wall Systems MINERAL Wallcoustic Line Individual

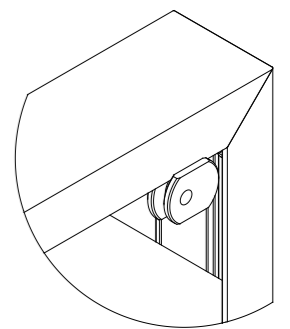
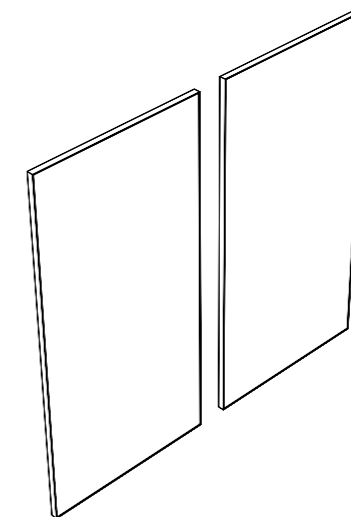


\*Knauf Ceiling Solutions, Germany, ©Fotostudio Eder

MINERAL Wallcoustic Line is a pre-assembled aluminium framed wall absorber with a standard white, laminate surface finish. It can also be ordered in a variety of colours or customised printed motifs on request

- Customise and enhance the visual appearance and acoustic ambience in any space
- The wall panel is delivered in one piece and is quick and easy to install using eccentric screws and installation key

Characteristic	Detailed information																																																	
Thickness (mm)		43																																																
Dimensions (mm)		1200 x 600 1200 x 1200 1800 x 1200 2400 x 1200																																																
		Additional sizes on request																																																
System		Eccentric bracket																																																
Weight		9.4 kg/m <sup>2</sup>																																																
Colour & design		<b>Frame:</b> Anodised Aluminium, White, Colours <b>Vario Design Colours</b> White  Granite  Steel  Green Marble  Copper  Oak  Brass  Sandstone  Concrete <b>Motif:</b> Custom Graphic Print																																																
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Frequency f (Hz)	125	250	500	1000	2000	4000																																												
<b>Equivalent Absorption Area Aobj*</b>																																																		
Rectangle: 1200 x 600mm	0.20	0.60	1.00	0.90	0.80	0.90																																												
Square: 1200 x 1200mm	0.50	1.10	1.60	1.50	1.50	1.50																																												
Rectangle: 1800 x 1200mm	0.60	1.90	2.50	2.40	2.20	2.40																																												
Rectangle: 2400 x 1200mm	1.10	2.20	3.10	3.10	3.00	3.10																																												
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Humidity resistance		<b>90%</b>																																																
Cleanability/ Sustainability			 EC 1272008 Annex G																																															



Detail: Eccentric bracket

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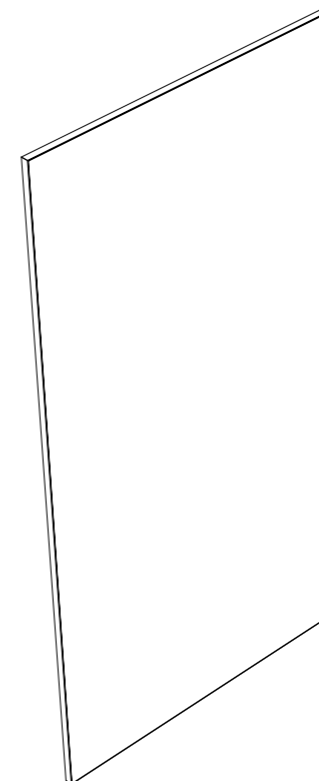


FABRIC Wallcoustic Line is a fabric covered wall absorber with an elegant aluminium frame and can be easily customised using individual patterns or images. The aluminium frame is supplied with an all-round groove into which the printed fabric is inserted. The fabric covering can be easily removed and replaced with a new fabric design, without using any special tools

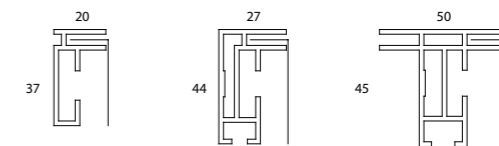
- FABRIC Wallcoustic Line 20: Lightweight profile for one-sided coverings in small sizes
- FABRIC Wallcoustic Line 27: Profile for all sizes with one-sided coverings
- FABRIC Wallcoustic Line 50: Profile for all sizes with one-sided coverings and a highly absorbing acoustic filling

Characteristic	Detailed information							
Thickness (mm)		20	27	50				
Dimensions (mm)		600 x 600 1200 x 600	1200 x 1200 1800 x 1200 2400 x 1200 2400 x 2400	600 x 600 1200 x 600 1200 x 1200 1800 x 1200 2400 x 1200 2400 x 2400				
System		Wall bracket						
Weight		3.0 - 6.0 kg/m <sup>2</sup>						
Colour & design		<b>Frame:</b> anodised aluminium, white, RAL colours <b>FABRIC Wallcoustic Line 20:</b> fabric, white or Custom Graphic Print <b>FABRIC Wallcoustic Line 27:</b> fabric, white or Custom Graphic Print <b>FABRIC Wallcoustic Line 50:</b> fabric, white or Custom Graphic Print						
Sound absorption		EN ISO 354						
		Frequency f (Hz)	125	250	500	1000	2000	4000
		Equivalent Absorption Area Aobj*	0.30	0.90	1.90	1.90	1.80	1.60
		Rectangle: 1200 x 600mm						
		*Values shown are the average of the 3 one third octave band values						
Humidity resistance		90%						
Cleanability								

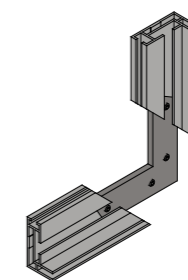
#### FABRIC Wallcoustic Line



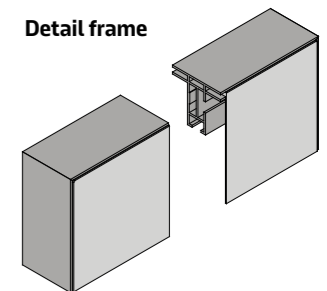
#### Profile cross-sections



#### Corner connection



#### Detail frame



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*Experience  
More  
Possibilities*

## VARIOLINE

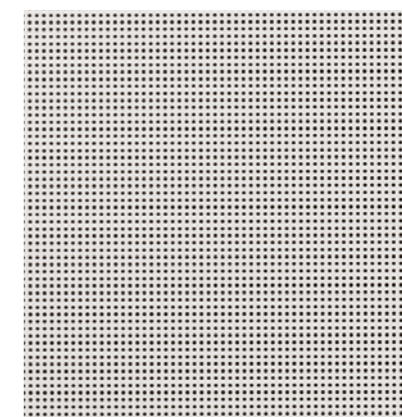
With Varioline, the individual design possibilities are almost limitless. Whichever architectural look and feel you have in mind, you can choose from a selection of mineral tiles with wood, concrete or metal pattern surfaces to achieve the desired visual aesthetic.

Individual motif designs are also available to help customise and enhance the ambience of any space.

Choose from any of the following solutions – Varioline Motif, Varioline Metal, Varioline Wood, Varioline Symetra and Varioline Colour to meet the acoustic, aesthetic and fire performance needs of your project.



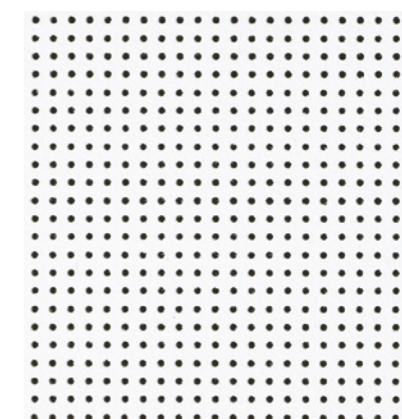
Varioline Motif



Varioline Metal



Varioline Wood



Varioline Symetra

## VARIOLINE Motif



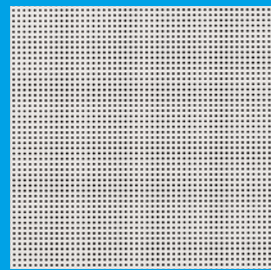
VARIOLINE Motif is a range of printed mineral ceilings that provides the capability for customised printed motifs, pictures or logos

- The laminated acoustic surface provides up to Class A sound absorption performance
- Available in a wide range of edge details to suit all design and installation needs
- Ideal for offices, foyers and retail spaces

## VARIOLINE Motif

Characteristic	Detailed information							
Edge details	<b>VARIOLINE Motif (Alpha)</b>			<b>VARIOLINE Motif (dB)</b>	<b>VARIOLINE Motif (Acoustic)</b>	<b>VARIOLINE Motif (HD)</b>		
	Board 	Tegular 24/90 	Tegular 15/90 	Vector 	SL2 	Finesse 		
Thickness (mm)	19	19	19	24	19	19		
Dimensions (mm)	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600	600 x 600 1200 x 600	600 x 600 625 x 625 1200 x 600	On Request	600 x 600 625 x 625 1200 x 600 1250 x 625		
System	Exposed demountable - System C			Semi-concealed tiles, demountable - System C	Semi-concealed planks, demountable - System I.3 (Bandraster - System I.2 / Corridor - System F.2)		Concealed, demountable - System A.2 / A.3	
Weight	<b>3.3 kg/m<sup>2</sup></b> (Board, Tegular 24/90, Tegular 15/90) <b>5.0 kg/m<sup>2</sup></b> (SL2) <b>5.2 kg/m<sup>2</sup></b> (Finesse) <b>8.6 kg/m<sup>2</sup></b> (Vector)							
Colour & design	Customised Printed Motifs							
Sound absorption	EN ISO 354		$\alpha_w = 0.95$ (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 11654 - <b>Class A</b> $\alpha_w = 0.65$ (H) (Vector, SL2) as per EN ISO 11654 - <b>Class C</b> $\alpha_w = 0.90$ (Finesse) as per EN ISO 11654 - <b>Class A</b>					
	<b>Frequency f (Hz)</b>			<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>
$\alpha_p$ Board, Tegular 24/90, Tegular 15/90			0.50	0.80	0.90	0.90	1.00	1.00
$\alpha_p$ Vector			0.45	0.40	0.60	0.80	0.95	1.00
$\alpha_p$ SL2			0.50	0.45	0.60	0.85	0.95	0.95
$\alpha_p$ Finesse			0.50	0.70	0.80	0.90	1.00	1.00
NRC = <b>0.90</b> (Board, Tegular 24/90, Tegular 15/90) as per ASTM C 423								
NRC = <b>0.70</b> (Vector, SL2) as per ASTM C 423								
NRC = <b>0.85</b> (Finesse) as per ASTM C 423								
Sound attenuation	$D_{n,f,w} = 28$ dB (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 717-1 $D_{n,f,w} = 34$ dB (Finesse) as per EN ISO 717-1 $D_{n,f,w} = 38$ dB (Vector) as per EN ISO 717-1 $D_{n,f,w} = 40$ dB (SL2) as per EN ISO 717-1			$CAC = 29$ dB (Board, Tegular 24/90, Tegular 15/90) as per ASTM E 413-10 $CAC = 35$ dB (Finesse) as per ASTM E 413-10 $CAC = 39$ dB (Vector) as per ASTM E 413-10				
Fire reaction	Euroclass <b>A2-s1, d0 / C-s1, d0</b> as per EN 13501-1 (depending on the motif / picture / logo)							
Thermal conductivity	$\lambda = 0.040$ W/mk (Board, Tegular 24/90, Tegular 15/90) as per EN 12667 $\lambda = 0.075$ W/mk (Vector) as per EN 12667 $\lambda = 0.060$ W/mk (SL2, Finesse) as per EN 12667							
Air permeability	<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance	<b>95% RH</b>							
Indoor air quality	 <b>A+</b>							

## VARIOLINE Metal



VARIOLINE Motif is a range of printed mineral ceilings that provides the capability for customised printed motifs, pictures or logos

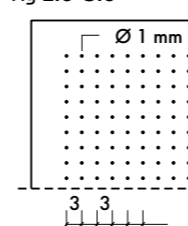
- The laminated acoustic surface provides up to Class A sound absorption performance
- Available in a wide range of edge details to suit all design and installation needs
- Ideal for offices, foyers and retail spaces

Build on us.

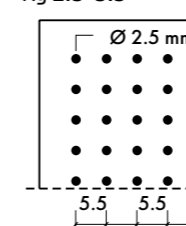
## VARIOLINE Metal

Characteristic	Detailed information							
Edge details		<b>VARIOLINE Metal (Alpha)</b>		<b>VARIOLINE Metal (dB)</b>	<b>VARIOLINE Metal (Acoustic)</b>	<b>VARIOLINE Metal (HD)</b>		
		Board	Tegular 24/90	Tegular 15/90	Vector	SL2	Finesse	
Thickness (mm)		19	19	19	24	19		
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600	600 x 600 1200 x 600	600 x 600 625 x 625 1200 x 600	On Request		
System		Exposed demountable - System C		Semi-concealed tiles, demountable - System C	Semi-concealed planks, demountable - System I.3 (Bandraster - System I.2 / Corridor - System F.2)	Concealed, demountable - System A.2 / A.3		
Weight		<b>3.3 kg/m<sup>2</sup></b> (Board, Tegular 24/90, Tegular 15/90) <b>5.0 kg/m<sup>2</sup></b> (SL2) <b>5.2 kg/m<sup>2</sup></b> (Finesse) <b>8.6 kg/m<sup>2</sup></b> (Vector)						
Colour & design		White, with printed patterns Rg 1.0-3.0, Rg 2.5-5.5, Rg 1.5-2.8D, Qg 3.0-8.5						
Sound absorption		EN ISO 354						
		$\alpha_w = 0.95$ (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 11654 - <b>Class A</b> $\alpha_w = 0.65$ (H) (Vector, SL2) as per EN ISO 11654 - <b>Class C</b> $\alpha_w = 0.90$ (Finesse) as per EN ISO 11654 - <b>Class A</b>						
		<b>Frequency f (Hz)</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$ Board, Tegular 24/90, Tegular 15/90	0.50	0.80	0.90	0.90	1.00	1.00
		$\alpha_p$ Vector	0.45	0.40	0.60	0.80	0.95	1.00
		$\alpha_p$ SL2	0.50	0.45	0.60	0.85	0.95	0.95
		$\alpha_p$ Finesse	0.50	0.70	0.80	0.90	1.00	1.00
		NRC = <b>0.90</b> (Board, Tegular 24/90, Tegular 15/90) as per ASTM C 423 NRC = <b>0.70</b> (Vector, SL2) as per ASTM C 423 NRC = <b>0.85</b> (Finesse) as per ASTM C 423						
Sound attenuation		$D_{n,f,w} = 28$ dB (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 717-1 $D_{n,f,w} = 34$ dB (Finesse) as per EN ISO 717-1 $D_{n,f,w} = 38$ dB (Vector) as per EN ISO 717-1 $D_{n,f,w} = 40$ dB (SL2) as per EN ISO 717-1			CAC = <b>29 dB</b> (Board, Tegular 24/90, Tegular 15/90) as per ASTM E 413-10 CAC = <b>35 dB</b> (Finesse) as per ASTM E 413-10 CAC = <b>39 dB</b> (Vector) as per ASTM E 413-10			
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1						
Thermal conductivity		$\lambda = 0.040$ W/mk (Board, Tegular 24/90, Tegular 15/90) as per EN 12667 $\lambda = 0.075$ W/mk (Vector) as per EN 12667 $\lambda = 0.060$ W/mk (SL2, Finesse) as per EN 12667						
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance		<b>95% RH</b>						
Indoor air quality		 A+						

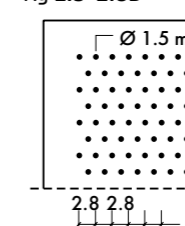
Rg 1.0-3.0



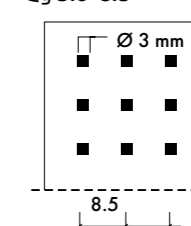
Rg 2.5-5.5



Rg 1.5-2.8D



Qg 3.0-8.5



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## VARIOLINE Wood



VARIOLINE Wood is a range of printed mineral ceilings that provides the appearance and warmth of wood

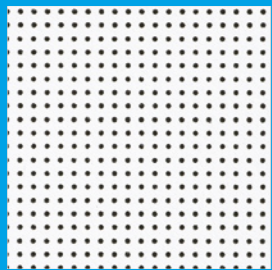
- Choice of 6 different standard wood species for design flexibility
- The laminated acoustic surface provides up to Class A sound absorption performance
- Available in a wide range of edge details to suit all design and installation needs
- Ideal for offices, foyers and retail spaces

### VARIOLINE Wood

Characteristic	Detailed information	VARIOLINE Wood (Alpha)																																								
		Board	Tegular 24/90	Tegular 15/90	Vector	VARIOLINE Wood (Acoustic) SL2	VARIOLINE Wood (HD) Finesse																																			
Edge details																																										
Thickness (mm)		19	19	19	24	19	19																																			
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600	600 x 600 1200 x 600	600 x 600 625 x 625 1200 x 600	On Request	600 x 600 625 x 625 1200 x 600 1250 x 625																																			
System		Exposed demountable - System C			Semi-concealed tiles, demountable - System C	Semi-concealed planks, demountable - System I.3 (Bandraaster - System I.2 / Corridor - System F.2)	Concealed, demountable - System A.2 / A.3																																			
Colour																																										
Weight		3.3 kg/m <sup>2</sup> (Board, Tegular 24/90, Tegular 15/90) 5.0 kg/m <sup>2</sup> (SL2) 5.2 kg/m <sup>2</sup> (Finesse) 8.6 kg/m <sup>2</sup> (Vector)																																								
Sound absorption		EN ISO 354 $\alpha_w = 0.95$ (H) (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 11654 - <b>Class A</b> $\alpha_w = 0.65$ (H) (Vector, SL2) as per EN ISO 11654 - <b>Class C</b> $\alpha_w = 0.90$ (H) (Finesse) as per EN ISO 11654 - <b>Class A</b>																																								
		<table border="1"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td><math>\alpha_p</math> Board, Tegular 24/90, Tegular 15/90</td> <td>0.50</td> <td>0.80</td> <td>0.90</td> <td>0.90</td> <td>1.00</td> <td>1.00</td> </tr> <tr> <td><math>\alpha_p</math> Vector</td> <td>0.45</td> <td>0.40</td> <td>0.60</td> <td>0.80</td> <td>0.95</td> <td>1.00</td> </tr> <tr> <td><math>\alpha_p</math> SL2</td> <td>0.50</td> <td>0.45</td> <td>0.60</td> <td>0.85</td> <td>0.95</td> <td>0.95</td> </tr> <tr> <td><math>\alpha_p</math> Finesse</td> <td>0.50</td> <td>0.70</td> <td>0.80</td> <td>0.90</td> <td>1.00</td> <td>1.00</td> </tr> </tbody> </table>						Frequency f (Hz)	125	250	500	1000	2000	4000	$\alpha_p$ Board, Tegular 24/90, Tegular 15/90	0.50	0.80	0.90	0.90	1.00	1.00	$\alpha_p$ Vector	0.45	0.40	0.60	0.80	0.95	1.00	$\alpha_p$ SL2	0.50	0.45	0.60	0.85	0.95	0.95	$\alpha_p$ Finesse	0.50	0.70	0.80	0.90	1.00	1.00
Frequency f (Hz)	125	250	500	1000	2000	4000																																				
$\alpha_p$ Board, Tegular 24/90, Tegular 15/90	0.50	0.80	0.90	0.90	1.00	1.00																																				
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		NRC = <b>0.90</b> (Board, Tegular 24/90, Tegular 15/90) as per ASTM C 423 NRC = <b>0.70</b> (Vector, SL2) as per ASTM C 423 NRC = <b>0.85</b> (Finesse) as per ASTM C 423																																								
Sound attenuation		$D_{n,f,w} = 28$ dB (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 717-1			$CAC = 29$ dB (Board, Tegular 24/90, Tegular 15/90) as per ASTM E 413-10																																					
		$D_{n,f,w} = 34$ dB (Finesse) as per EN ISO 717-1			$CAC = 35$ dB (Finesse) as per ASTM E 413-10																																					
		$D_{n,f,w} = 38$ dB (Vector) as per EN ISO 717-1			$CAC = 39$ dB (Vector) as per ASTM E 413-10																																					
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Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1																																								
Thermal conductivity		$\lambda = 0.040$ W/mk (Board, Tegular 24/90, Tegular 15/90) as per EN 12667 $\lambda = 0.075$ W/mk (Vector) as per EN 12667 $\lambda = 0.060$ W/mk (SL2, Finesse) as per EN 12667																																								
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177																																								
Humidity resistance		<b>95% RH</b>																																								
Indoor air quality		 A1+																																								

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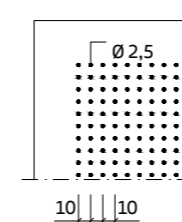
## VARIOLINE Symetra



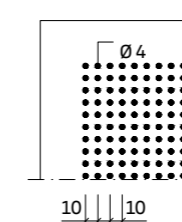
### VARIOLINE Symetra

Characteristic	Detailed information								
	VARIOLINE Symetra (Alpha)			VARIOLINE Symetra (dB)	VARIOLINE Symetra (Acoustic)	VARIOLINE Symetra (HD)			
Edge details		<b>VARIOLINE Symetra (Alpha)</b> Board  Tegular 24/90  Tegular 15/90 		<b>VARIOLINE Symetra (dB)</b> Vector 	<b>VARIOLINE Symetra (Acoustic)</b> SL2 	<b>VARIOLINE Symetra (HD)</b> Finesse 			
Thickness (mm)		19	19	19	24	19	19		
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600	600 x 600 1200 x 600	600 x 600 625 x 625 1200 x 600	On Request	600 x 600 625 x 625 1200 x 600 1250 x 625		
System		Exposed demountable - System C			Semi-concealed tiles, demountable - System C	Semi-concealed planks, demountable - System I.3 (Bandraster - System I.2 / Corridor - System F.2)	Concealed, demountable - System A.2 / A.3		
Weight		<b>3.3 kg/m<sup>2</sup></b> (Board, Tegular 24/90, Tegular 15/90) <b>5.0 kg/m<sup>2</sup></b> (SL2) <b>5.2 kg/m<sup>2</sup></b> (Finesse) <b>8.6 kg/m<sup>2</sup></b> (Vector)							
Colour & design		White, with printed patterns Rg 2.5-10, Rg 4-10, Rg 4-16, Rg 4-16 / 4x4, RS 15-20							
Sound absorption		EN ISO 354							
		$\alpha_w = 0.95$ (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 11654 - <b>Class A</b> $\alpha_w = 0.65$ (H) (Vector, SL2) as per EN ISO 11654 - <b>Class C</b> $\alpha_w = 0.90$ (Finesse) as per EN ISO 11654 - <b>Class A</b>							
		<b>Frequency f (Hz)</b>		<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$ Board, Tegular 24/90, Tegular 15/90		0.50	0.80	0.90	0.90	1.00	1.00
		$\alpha_p$ Vector		0.45	0.40	0.60	0.80	0.95	1.00
		$\alpha_p$ SL2		0.50	0.45	0.60	0.85	0.95	0.95
		$\alpha_p$ Finesse		0.50	0.70	0.80	0.90	1.00	1.00
		NRC = <b>0.90</b> (Board, Tegular 24/90, Tegular 15/90) as per ASTM C 423 NRC = <b>0.70</b> (Vector, SL2) as per ASTM C 423 NRC = <b>0.85</b> (Finesse) as per ASTM C 423							
Sound attenuation		$D_{n,t,w} = 28$ dB (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 717-1 $D_{n,t,w} = 34$ dB (Finesse) as per EN ISO 717-1 $D_{n,t,w} = 38$ dB (Vector) as per EN ISO 717-1 $D_{n,t,w} = 40$ dB (SL2) as per EN ISO 717-1			$CAC = 29$ dB (Board, Tegular 24/90, Tegular 15/90) as per ASTM E 413-10 $CAC = 35$ dB (Finesse) as per ASTM E 413-10 $CAC = 39$ dB (Vector) as per ASTM E 413-10				
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1							
Thermal conductivity		$\lambda = 0.040$ W/mk (Board, Tegular 24/90, Tegular 15/90) as per EN 12667 $\lambda = 0.075$ W/mk (Vector) as per EN 12667 $\lambda = 0.060$ W/mk (SL2, Finesse) as per EN 12667							
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance		<b>95% RH</b>							
Indoor air quality		 <b>A+</b>							

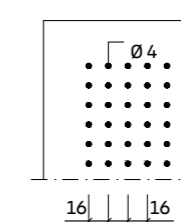
Rg 2.5-10



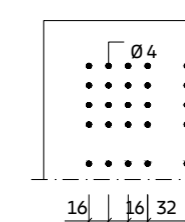
Rg 4-10



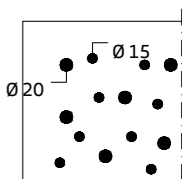
Rg 4-16



Rg 4-16 / 4x4



RS 15-20

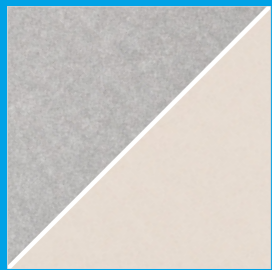


VARIOLINE Symetra is a fleece-coated, acoustic mineral tile that provides up to Class A sound absorption

- Available in a wide range of edge details to suit all design and installation needs
- Provides design flexibility with five printed perforated surface patterns to choose from
- Ideal for offices, foyers and retail spaces

**Build on us.**

## VARIOLINE Colour



VARIOLINE Colour is a range of printed mineral ceilings that provides the capability for custom colour tiles

- The laminated acoustic surface provides up to Class A sound absorption performance
- Available in a wide range of edge details to suit all design and installation needs
- Ideal for offices, foyers and retail spaces

## VARIOLINE Colour

Characteristic	Detailed information							
Edge details	<b>VARIOLINE Colour (Alpha)</b>			<b>VARIOLINE Colour (dB)</b>	<b>VARIOLINE Colour (Acoustic)</b>	<b>VARIOLINE Colour (HD)</b>		
	Board 	Tegular 24/90 	Tegular 15/90 	Vector 	SL2 	Finesse 		
Thickness (mm)	19	19	19	24	19	19		
Dimensions (mm)	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600	600 x 600 1200 x 600	600 x 600 625 x 625 1200 x 600	On Request	600 x 600 625 x 625 1200 x 600 1250 x 625		
System	Exposed demountable - System C			Semi-concealed tiles, demountable - System C	Semi-concealed planks, demountable - System I.3 (Bandraster - System I.2 / Corridor - System F.2)	Concealed, demountable - System A.2 / A.3		
Weight	<b>3.3 kg/m<sup>2</sup></b> (Board, Tegular 24/90, Tegular 15/90) <b>5.0 kg/m<sup>2</sup></b> (SL2) <b>5.2 kg/m<sup>2</sup></b> (Finesse) <b>8.6 kg/m<sup>2</sup></b> (Vector)							
Colour & design	All RAL and NCS colours are available for print							
Sound absorption	EN ISO 354							
	$\alpha_w = 0.95$ (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 11654 - <b>Class A</b> $\alpha_w = 0.65$ (H) (Vector, SL2) as per EN ISO 11654 - <b>Class C</b> $\alpha_w = 0.90$ (Finesse) as per EN ISO 11654 - <b>Class A</b>							
	<b>Frequency f (Hz)</b>		<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
	$\alpha_p$ Board, Tegular 24/90, Tegular 15/90		0.50	0.80	0.90	0.90	1.00	1.00
	$\alpha_p$ Vector		0.45	0.40	0.60	0.80	0.95	1.00
	$\alpha_p$ SL2		0.50	0.45	0.60	0.85	0.95	0.95
	$\alpha_p$ Finesse		0.50	0.70	0.80	0.90	1.00	1.00
	NRC = <b>0.90</b> (Board, Tegular 24/90, Tegular 15/90) as per ASTM C 423							
	NRC = <b>0.70</b> (Vector, SL2) as per ASTM C 423							
	NRC = <b>0.85</b> (Finesse) as per ASTM C 423							
Sound attenuation	$D_{n,f,w} = 28$ dB (Board, Tegular 24/90, Tegular 15/90) as per EN ISO 717-1 $D_{n,f,w} = 34$ dB (Finesse) as per EN ISO 717-1 $D_{n,f,w} = 38$ dB (Vector) as per EN ISO 717-1 $D_{n,f,w} = 40$ dB (SL2) as per EN ISO 717-1			$CAC = 29$ dB (Board, Tegular 24/90, Tegular 15/90) as per ASTM E 413-10 $CAC = 35$ dB (Finesse) as per ASTM E 413-10 $CAC = 39$ dB (Vector) as per ASTM E 413-10				
Fire reaction	Euroclass <b>A2-s1, d0 / C-s1, d0</b> as per EN 13501-1 (depending on the colour)							
Thermal conductivity	$\lambda = 0.040$ W/mk (Board, Tegular 24/90, Tegular 15/90) as per EN 12667 $\lambda = 0.075$ W/mk (Vector) as per EN 12667 $\lambda = 0.060$ W/mk (SL2, Finesse) as per EN 12667							
Air permeability	<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance	<b>95% RH</b>							
Indoor air quality	 A+							

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## ELEGANZA SEAMLESS ACOUSTICS

Creating future-focused, eco-friendly buildings doesn't just mean designing for how people will use a space. It means designing for how they'll feel using that space. Sustainability and wellbeing go hand in hand – which means your approach and the systems you use need to help you design for the senses. Open up welcoming spaces, minimise unwelcome noise.

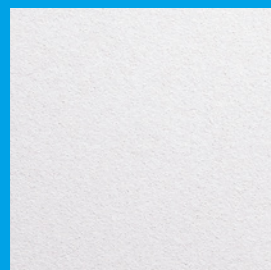
That's why we created ELEGANZA: a ceiling system featuring seamless, monolithic looks to please the eye and outstanding sound absorption to cater for the ear. It's the perfect balance of sight and sound, beauty and performance – a surface that quietly enhances the spaces around people, improving their physical experience of them.

ELEGANZA puts sensory design at the core of your constructions. And as a complete system that's quicker, easier, more flexible and more cost-effective to install, it's also designed for another sense: common sense. So, everyone across the whole project team can feel better about the spaces you create.



*Design for the Senses*

## ELEGANZA



© Mecanoo

ELEGANZA Seamless Acoustics offers a ground breaking new system with a 100% seamless finish featuring an elegant finely textured visual that is robust, durable and enduring. ELEGANZA Seamless Acoustics delivers high-quality sound absorption performance so you can have the best of both worlds: excellent sound absorption and a stunning seamless finish

- Excellent sound absorption (0.95  $a_w$ )
- Enhanced endurance against surface pollution due to a sophisticated backfoil technology
- Ideal for restaurants, retail and leisure, office, education and residential

**Build on us.**

## ELEGANZA

Characteristic	Detailed information															
Edge details		<b>Seamless</b> 														
Thickness (mm)		25														
Dimensions (mm)		2400 x 1200 (panel)														
System		Seamless - Eleganza														
Weight		Panel weight: <b>5.4 kg/m<sup>2</sup></b> Finished ceiling <sup>1)</sup> : <b>7.1 kg/m<sup>2</sup></b>														
Colour		 White <small>RAL colours available on request</small>														
Sound absorption		EN ISO 354 $\alpha_w = 0.95$ as per EN ISO 11654 - <b>Class A</b> <table border="1"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td><math>\alpha_p</math></td> <td>0.45</td> <td>0.80</td> <td>0.90</td> <td>0.95</td> <td>1.00</td> <td>1.00</td> </tr> </tbody> </table> NRC = <b>0.95</b> as per ASTM C 423	Frequency f (Hz)	125	250	500	1000	2000	4000	$\alpha_p$	0.45	0.80	0.90	0.95	1.00	1.00
Frequency f (Hz)	125	250	500	1000	2000	4000										
$\alpha_p$	0.45	0.80	0.90	0.95	1.00	1.00										
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 33$ dB as per EN ISO 717-1 CAC = <b>33 dB</b> as per ASTM E 413-10														
Sound reduction		EN ISO 10140-2 $R_w = 18$ dB as per EN ISO 717-1														
Fire reaction		Euroclass <b>A2-s1, d0</b> <sup>2)</sup> as per EN 13501-1														
Light reflectance		Up to <b>84%</b> (white)														
Thermal conductivity		$\lambda = 0.038$ W/mK as per EN 12667														
Humidity resistance		<b>95% RH</b>														
Indoor air quality		 A+ IACG														
Cleanability / Sustainability		 67% <sup>2)</sup> (2024)														

<sup>1)</sup> Finished ceiling without substructure. This weight is indicative and may vary depending on the specifics of the installation, wastage, and application rates.

<sup>2)</sup> Applies only to the panel.

## ADAGIO RANGE

ADAGIO is the product of world-leading experience in ceiling design. Of cutting-edge thinking in everything from scratch resistance to acoustics, sustainability to design flexibility. It's a premium system built on the highest standards for better design, better installation and better spaces.

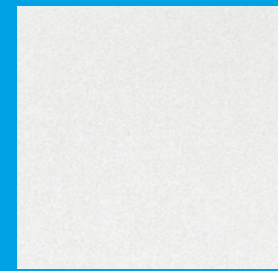
That's why ADAGIO can take your ceilings to the next level. You'll be inspired by how much more you can achieve with Knauf Ceiling Solutions.



Notino, Czech Republic (© Jiří Hloušek)

*Experience More Choice  
than Ever Before*

## ADAGIO Acoustic<sup>+</sup> Mineral ceiling



ADAGIO Acoustic<sup>+</sup> offers a smooth, uniform, and durable surface with unparalleled scratch resistance and the brightest white visual available. Thanks to its exceptional air permeability (no filter effect), the surface remains whiter and brighter for an extended duration. The tile also provides a balance of both sound absorption and sound attenuation, as well as high light reflectance.

- Good sound absorption and high sound attenuation: 0.65  $\alpha_w$  and 39 dB (Board, Tegular 24/90, Tegular 15/90, SL2, SL2 / Tegular 15/90, Finesse) or 38 dB (Vector).
- Excellent light reflectance: 88%.
- ISO 4, Indoor Air Comfort Gold and Cradle to Cradle Certified® Bronze.
- ADAGIO Acoustic<sup>+</sup>: ideal for meeting rooms or waiting areas. ADAGIO Acoustic<sup>+</sup> Planks: ideal for both open areas and corridors.



## Build on us.

Characteristics	Detailed information							
Edge details		Board 	Tegular 24/90 	Tegular 15/90 	Vector 	SL2 	SL2 / Tegular 15/90 	Finesse 
Thickness (mm)		19	19	19	24	19	19	19
Dimensions (mm)		600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1500 x 600 1800 x 600	600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1500 x 600 1800 x 600	600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1350 x 300 1350 x 600 1500 x 600 1800 x 600	600 x 600 625 x 625	1350 x 300 1350 x 600 1500 x 300 1800 x 300 2000 x 300	1500 x 300 1800 x 300	600 x 600 625 x 625 1200 x 600 1250 x 625
System		Exposed demountable - System C	Exposed demountable - System C	Exposed demountable - System C	Semi-concealed tiles, demountable - System C	Semi-concealed planks, demountable - System I.3	Semi-concealed planks - Bandraster, demountable - System I.2	Concealed, demountable - System A.2 / A.3
Weight		5.0 - 8.6 kg/m <sup>2</sup>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.65(H)$ as per EN ISO 11654 - <b>Class C</b>						
		Frequency f (Hz)	125	250	500	1000	2000	4000
		$\alpha_p$ (Board, Tegular 24/90, Tegular 15/90, SL2, SL2 / Tegular 15/90, Finesse)	0.35	0.45	0.60	0.80	0.90	0.90
		$\alpha_p$ (Vector)	0.40	0.45	0.60	0.80	0.95	0.95
		NRC = <b>0.70</b> as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 39$ dB (Board, Tegular 24/90, Tegular 15/90, SL2, SL2 / Tegular 15/90, Finesse) $D_{n,w} = 38$ dB (Vector) as per EN ISO 717-1 CAC = <b>39 dB</b> as per ASTM E 413-10						
Sound reduction		EN ISO 10140-2 $R_w = 22$ dB (Board, Tegular 24/90, Tegular 15/90, SL2, SL2 / Tegular 15/90, Finesse)						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mk (Board, Tegular 24/90, Tegular 15/90, SL2, SL2 / Tegular 15/90, Finesse) $\lambda = 0.075$ W/mk (Vector) as per EN 12667						
Air permeability		<b>PM1 (<math>\leq 30</math> m<sup>3</sup>/hm<sup>2</sup>)</b> as per DIN 18177						
Humidity resistance		<b>95% RH</b>						
Clean room		<b>ISO 4</b> as per EN ISO 14644-1						
Indoor air quality								
Cleanability/ Sustainability								
					35.1-36.9% (2024)			<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>

## ADAGIO Alpha+ Mineral ceiling



ADAGIO Alpha+ offers a smooth, uniform, and durable surface with unparalleled scratch resistance and the brightest white visual available. The tile also provides a balance of both sound absorption and sound attenuation, as well as high light reflectance.

- Excellent sound absorption: 1.00  $\alpha_w$ .
- Excellent Light Reflectance: 88%.
- ISO 4, Indoor Air Comfort Gold and Cradle to Cradle Certified® Bronze.
- Ideal for open spaces (call centres, libraries, open space offices, cafeterias, etc.).



Characteristics	Detailed information							
Edge details		Board 	Tegular 24/90 	Tegular 15/90 				
Thickness (mm)		20	20	20				
Dimensions (mm)		600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1500 x 600 1800 x 600	600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1500 x 600 1800 x 600	600 x 600 625 x 625 675 x 675 1200 x 300 1500 x 600 1800 x 600				
System		Exposed demountable - System C		Exposed demountable - System C Exposed - Bandraaster, demountable - System I.3 Exposed - Corridor, demountable - System F.3				
Weight		3.4 kg / m <sup>2</sup>						
Colour		 White						
Sound absorption		EN ISO 354 <span style="float: right;"><math>\alpha_w = 1.00</math> as per EN ISO 11654 - <b>Class A</b></span>						
		Frequency f (Hz)	125	250	500	1000	2000	4000
		$\alpha_p$	0.55	0.80	1.00	0.95	1.00	1.00
		NRC = <b>0.95</b> as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 25$ dB as per EN ISO 717-1		CAC = <b>26</b> dB as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 $R_w = 12$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.040$ W/mk as per EN 12667						
Air permeability		<b>PM3 (<math>\leq 100</math> m<sup>3</sup>/hm<sup>2</sup>)</b> as per DIN 18177						
Humidity resistance		<b>95% RH</b>						
Clean room		<b>ISO 4</b> as per EN ISO 14644-1						
Indoor air quality								
Cleanability								
Sustainability							<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>	

## ADAGIO dB<sup>+</sup> Mineral ceiling



Takeda, Warsaw, Poland (© Szymon Polański)

ADAGIO dB<sup>+</sup> offers a smooth, uniform, and durable surface with unparalleled scratch resistance and the brightest white visual available. Thanks to its exceptional air permeability (no filter effect), the surface remains whiter and brighter for an extended duration. The tile also provides a balance of both sound absorption and sound attenuation, as well as high light reflectance.

- Excellent sound attenuation: 41 dB (24mm) / 43 dB (30mm).
- Excellent light reflectance: 88%.
- ISO 4, Indoor Air Comfort Gold and Cradle to Cradle Certified® Bronze.
- Ideal for individual / private offices.



Characteristics	Detailed information							
Edge details		Board 	Regular 24/90 		Regular 15/90 			
Thickness (mm)		24, 30	24		24			
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600 1250 x 625		600 x 600 625 x 625 1200 x 600 1250 x 625			
System		Exposed demountable - System C				Exposed demountable - System C Exposed - Bandraaster, demountable - System I.3 Exposed - Corridor, demountable - System F.3		
Weight		8.6 kg/m <sup>2</sup> (24mm) 10.6 kg/m <sup>2</sup> (30mm)						
Colour		 White						
Sound absorption		EN ISO 354					$\alpha_w = 0.65$ (H) as per EN ISO 11654 - Class C	
		Frequency f (Hz)	125	250	500	1000	2000	4000
		$\alpha_p$ 24 mm	0.40	0.45	0.60	0.80	0.85	0.85
		$\alpha_p$ 30mm	0.35	0.40	0.65	0.85	0.90	0.95
NRC = 0.70 as per ASTM C 423								
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 41$ dB (24mm) as per EN ISO 717-1 $D_{n,f,w} = 43$ dB (30mm) as per EN ISO 717-1			CAC = 43 dB (24mm) as per ASTM E 413-10 CAC = 44 dB (30mm) as per ASTM E 413-10			
Sound reduction		EN ISO 10140-2 $R_w = 24$ dB (24mm) as per EN ISO 717-1			$R_w = 25$ dB (30mm) as per EN ISO 717-1			
Fire reaction		Euroclass A2-s1, d0 as per EN 13501-1						
Light reflectance		88%						
Thermal conductivity		$\lambda = 0.075$ W/mk as per EN 12667						
Air permeability		PM1 ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance		95% RH						
Clean room		ISO 4 as per EN ISO 14644-1						
Indoor air quality								
Cleanability								
Sustainability							<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>	
		36.8-37.4% (2024)	EC 1272/2008 Annex G					

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## ADAGIO HD+ 19 mm Mineral ceiling



ADAGIO HD+ 19mm offers a smooth, uniform, and durable surface with unparalleled scratch resistance and the brightest white visual available. Thanks to its exceptional air permeability (no filter effect), the surface remains whiter and brighter for an extended duration. The tile also provides a balance of both sound absorption and sound attenuation, as well as high light reflectance.

- Excellent sound absorption (0.90  $\alpha_w$ ) with good sound attenuation (34 dB).
- For additional acoustical options, please refer to ADAGIO HD+ 30mm and ADAGIO HD+ 35mm.
- Excellent Light Reflectance: 88%.
- ISO 4, Indoor Air Comfort Gold and Cradle to Cradle Certified® Bronze.
- Ideal for individual / private offices and corridors.



Characteristics	Detailed information							
Edge details		Board 	Tegular 24/90 	Tegular 15/90 	SL2 	Finesse 		
Thickness (mm)		19	19	19	19	19		
Dimensions (mm)		600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1500 x 600 1800 x 600	600 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1500 x 600 1800 x 600	600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1350 x 300 1350 x 600 1500 x 600 1800 x 600	1350 x 300 1350 x 600 1500 x 300 1800 x 300 2000 x 300	600 x 600 625 x 625 1200 x 600 1250 x 625		
System		Exposed demountable - System C	Exposed, demountable - System C Exposed - Bandraaster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	Exposed, demountable - System C Exposed - Bandraaster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraaster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2	Concealed, demountable - System A.2 / A.3		
Weight		5.2 kg / m <sup>2</sup>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.90$ as per EN ISO 11654 - Class A Frequency f (Hz)						
			125	250	500	1000	2000	4000
		$\alpha_p$	0.45	0.75	0.85	0.85	1.00	1.00
		NRC = 0.90 as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 34$ dB as per EN ISO 717-1 CAC = 35 dB as per ASTM E 413-10						
Sound reduction		EN ISO 10140-2 $R_w = 17$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667						
Air permeability		<b>PM2 (<math>\leq 50</math> m<sup>3</sup>/hm<sup>2</sup>)</b> as per DIN 18177						
Humidity resistance		<b>95% RH</b>						
Clean room		<b>ISO 4</b> as per EN ISO 14644-1						
Indoor air quality								
Cleanability								
Sustainability							<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>	

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## ADAGIO HD+ 30 mm Mineral ceiling



ADAGIO HD+ 30mm offers a smooth, uniform, and durable surface with unparalleled scratch resistance and the brightest white visual available. Thanks to its exceptional air permeability (no filter effect), the surface remains whiter and brighter for an extended duration. The tile also provides a balance of both sound absorption and sound attenuation, as well as high light reflectance.

- Excellent sound absorption (0.90  $\alpha_w$ ) with excellent sound attenuation (41 dB).
- For additional acoustical options, please refer to ADAGIO HD+ 19mm and ADAGIO HD+ 35mm.
- Excellent Light Reflectance: 88%.
- ISO 4, Indoor Air Comfort Gold and Cradle to Cradle Certified® Bronze.
- Ideal for individual / private offices, classrooms and lecture halls in the education sector.



Characteristics	Detailed information																		
Edge details		Board 	Tegular 24/90 	Tegular 15/90 	SL2 	Finesse 													
Thickness (mm)		30	30	30	30	30													
Dimensions (mm)		600 x 600 625 x 625 675 x 675 1200 x 600 1250 x 625	600 x 600 625 x 625 675 x 675 1200 x 600 1250 x 625	600 x 600 625 x 625 675 x 675 1200 x 600 1250 x 625 1350 x 300 1350 x 600	1350 x 300 1350 x 600 1500 x 300 1800 x 300 2000 x 300	600 x 600 625 x 625 1200 x 600 1250 x 625													
System		Exposed demountable - System C	Exposed, demountable - System C Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	Exposed, demountable - System C Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2	Concealed, demountable - System A.2 / A.3													
Weight		8.2 kg / m <sup>2</sup>																	
Colour		 White																	
Sound absorption		EN ISO 354 <span style="float: right;"><math>\alpha_w = 0.90</math> as per EN ISO 11654 - <b>Class A</b></span> Frequency f (Hz) <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>125</td><td>250</td><td>500</td><td>1000</td><td>2000</td><td>4000</td></tr></table> $\alpha_p$ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>0.50</td><td>0.75</td><td>0.80</td><td>0.95</td><td>1.00</td><td>1.00</td></tr></table> NRC = <b>0.90</b> as per ASTM C 423						125	250	500	1000	2000	4000	0.50	0.75	0.80	0.95	1.00	1.00
125	250	500	1000	2000	4000														
0.50	0.75	0.80	0.95	1.00	1.00														
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 41$ dB as per EN ISO 717-1 <span style="float: right;">CAC = <b>42</b> dB as per ASTM E 413-10</span>																	
Sound reduction		EN ISO 10140-2 $R_w = 25$ dB as per EN ISO 717-1																	
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1																	
Light reflectance		<b>88%</b>																	
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667																	
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177																	
Humidity resistance		<b>95% RH</b>																	
Clean room		<b>ISO 4</b> as per EN ISO 14644-1																	
Indoor air quality		  																	
Cleanability		  																	
Sustainability		     <a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>																	

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.
































## ADAGIO HD+ 35 mm Mineral ceiling



ADAGIO HD+ 35mm offers a smooth, uniform, and durable surface with unparalleled scratch resistance and the brightest white visual available. Thanks to its exceptional air permeability (no filter effect), the surface remains whiter and brighter for an extended duration. The tile also provides a balance of both sound absorption and sound attenuation, as well as high light reflectance.

- Excellent sound absorption (0.90  $\alpha_w$ ) with excellent sound attenuation (43 dB).
- For additional acoustical options, please refer to ADAGIO HD+ 19mm and ADAGIO HD+ 30mm.
- Excellent Light Reflectance: 88%.
- ISO 4, Indoor Air Comfort Gold and Cradle to Cradle Certified® Bronze.
- Ideal for individual / private offices, classrooms and lecture halls in the education sector.



Characteristics	Detailed information						
Edge details	 Board	 Tegular 24/90	 Tegular 15/90	 SL2			
Thickness (mm)	 35	35	35	35			
Dimensions (mm)	 600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600 1250 x 625 1350 x 300 1350 x 600	1350 x 300 1350 x 600 1500 x 300 1800 x 300 2000 x 300			
System	 Exposed demountable - System C	Exposed, demountable - System C Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	Exposed, demountable - System C Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2			
Weight	 9.5 kg / m <sup>2</sup>						
Colour	  White						
Sound absorption	 EN ISO 354	$\alpha_w = 0.90$ as per EN ISO 11654 - <b>Class A</b>					
	Frequency f (Hz)	125	250	500	1000	2000	4000
	$\alpha_p$	0.40	0.70	0.85	0.95	1.00	1.00
	NRC = <b>0.90</b> as per ASTM C 423						
Sound attenuation	 EN ISO 10848-2	$D_{n,w} = 43$ dB as per EN ISO 717-1		$CAC = 44$ dB as per ASTM E 413-10			
Sound reduction	 EN ISO 10140-2	$R_w = 25$ dB as per EN ISO 717-1					
Fire reaction	 Euroclass <b>A2-s1, d0</b> as per EN 13501-1						
Light reflectance	 <b>88%</b>						
Thermal conductivity	 $\lambda = 0.060$ W/mk as per EN 12667						
Air permeability	 <b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance	 <b>95% RH</b>						
Clean room	 <b>ISO 4</b> as per EN ISO 14644-1						
Indoor air quality	   						
Cleanability	  						
Sustainability	    						
	<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>						



© McAteer Photographer

# Healthcare and Hygiene

## THE HEALTHCARE & HYGIENE RANGE

Under constant scrutiny and demanding the highest levels of comfort and cleanliness, healthcare settings go through continual changes to ensure the best possible environment for patients and healthcare professionals.

Reaching the essential criteria for individual risk zones, our easy-to-clean products deliver a strong acoustic performance, with impressive sound-absorbing and sound-blocking properties to help create privacy, as well as bring in daylight to reduce in-patient time.



## MEDIGUARD Alpha



PL Health Dept., Jan Kochanowski University of Humanities & Sciences, Kielce, © Szymon Polarski

MEDIGUARD Alpha has a superior anti-microbial resistance. Suitable for healthcare applications demanding Class A sound absorption and rigorous cleaning methods, it is scrubbable, can be cleaned with steam and is both scratch resistant and water repellent.

- Water repellent
- Scratch resistant
- Limit growth of extended scope of bacteria & fungi
- Resistant to disinfectants, it can be scrubbed and cleaned with steam
- Complies with Zone 4 risk requirements according to NF S 90-351:2013
- Excellent acoustics with Class A level
- ISO 3
- Excellent light reflectance (88%)
- Ideal for healthcare facilities, food industry, laboratories, etc.

### MEDIGUARD Alpha

Characteristic	Detailed information							
Edge details		<b>Board</b> 	<b>Tegular 24/90</b> 	<b>Tegular 15/90</b> 				
Thickness (mm)		20	20	20				
Dimensions (mm)		600 x 600 1200 x 600	600 x 600	600 x 600				
System		Exposed demountable - System C						
Weight		<b>3.3 kg / m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.95$ as per EN ISO 11654 - <b>Class A</b>						
		<b>Frequency f (Hz)</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$	0.60	0.85	0.90	0.90	1.00	1.00
		NRC = <b>0.95</b> as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 25$ dB as per EN ISO 717-1		CAC = <b>25 dB</b> as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 $R_w = 12$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.040$ W/mK as per EN 12667						
Humidity resistance		<b>95% RH</b>						
Clean room		<b>ISO 3</b> as per EN ISO 14644-1						
Risk level		<b>Zone 4</b> (Very High Risk) as per NF S 90-351:2013						
Microbiological Cleanliness		<b>M1</b> as per NF S 90-351:2013						
Kinetics of particle decontamination		<b>CP<sub>(0,5)</sub> 5</b> as per NF S 90-351:2013						
Indoor air quality		 A+	 E1	 IACG				
Cleanability								
Anti-microbial characteristics		Tested against: Escherichia coli, Staphylococcus aureus, Bacillus cereus, Streptococcus pneumoniae, Acinobacter baumannii, Klebsiella pneumoniae, Candida albicans, Aspergillus brasiliensis						
Sustainability		 74% (2023)	 BIO-SOLUBLE WOOL EC 1272/2008 Annex G					

In addition to risk level, each room type will have specific requirement for the cleanability and air leakage of the ceiling tile. Therefore, a tile which meets risk zone 4 requirements may not necessarily be suitable for all room types defined in risk zone 4.

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## MEDIGUARD Acoustic



SK UVN SNP Hospital, Ružomberok, © Jakub Joachim

MEDIGUARD Acoustic combines excellent cleanability with good levels of sound absorption. Its superior anti-microbial performance and disinfectants resistance, as well as scratch resistance and water repellency make it an ideal solution for healthcare applications.

- Water repellent
- Scratch resistant
- Limit growth of an extended scope of bacteria & fungi
- Resistant to disinfectants, it can be scrubbed and cleaned with steam
- Complies with Zone 4 risk requirements according to NF S 90-351:2013
- Excellent light reflectance (88%)
- Ideal for healthcare facilities, food industry, laboratories, etc.

## MEDIGUARD Acoustic

Characteristic	Detailed information							
Edge details		<b>Board</b> 	<b>Tegular 24/90</b> 	<b>Tegular 15/90</b> 				
Thickness (mm)		19	19	19				
Dimensions (mm)		600 x 600 1200 x 600	600 x 600 1200 x 600	600 x 600 1200 x 600				
System		Exposed demountable - System C						
Weight		<b>5.0 kg / m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.65(H)$ as per EN ISO 11654 - <b>Class C</b>						
		<b>Frequency f (Hz)</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$	0.40	0.40	0.60	0.80	0.90	0.85
		NRC = <b>0.70</b> as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 38 \text{ dB}$ as per EN ISO 717-1		CAC = <b>39 dB</b> as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 $R_w = 22 \text{ dB}$ as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.060 \text{ W/mK}$ as per EN 12667						
Air permeability		<b>PM1</b> ( $\leq 30 \text{ m}^3/\text{hm}^2$ ) as per DIN 18177						
Humidity resistance		<b>95% RH</b>						
Clean room		<b>ISO 4</b> as per EN ISO 14644-1						
Risk level		<b>Zone 4</b> (Very High Risk) as per NF S 90-351:2013						
Microbiological Cleanliness		<b>M1</b> as per NF S 90-351:2013						
Kinetics of particle decontamination		<b>CP<sub>(0,5)</sub>5</b> as per NF S 90-351:2013						
Indoor air quality		 <b>A+</b>	 <b>E1</b>	 <b>IACG</b>				
Cleanability								
Anti-microbial characteristics		Tested against: Escherichia coli, Staphylococcus aureus, Bacillus cereus, Streptococcus pneumoniae, Acinobacter baumannii, Klebsiella pneumoniae, Candida albicans, Aspergillus brasiliensis						
Sustainability		 <b>35%</b> (2023)	 <b>BIO-SOLUBLE WOOL</b> EC 1272/2008 Annex II					

In addition to risk level, each room type will have specific requirement for the cleanability and air leakage of the ceiling tile. Therefore, a tile which meets risk zone 4 requirements may not necessarily be suitable for all room types defined in risk zone 4.

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## MEDIGUARD Plain



SK UVN SNP Hospital, Ružomberok, © Jakub Joachim

MEDIGUARD Plain combines good cleanability alongside superior anti-microbial resistance, making it an ideal solution for healthcare environments.

- Water repellent
- Scratch resistant
- Limit growth of extended scope of bacteria & fungi
- Resistant to disinfectants and can be cleaned with dry, damp and wet cloth
- Complies with Zone 4 risk requirements according to NF S 90-351:2013
- ISO 4
- Excellent light reflectance (88%)
- Ideal for healthcare environments and laboratories

## MEDIGUARD Plain

Characteristic	Detailed information						
	Board	Tegular 24		Tegular 15			
Edge details							
Thickness (mm)	15	15	15				
Dimensions (mm)	600 x 600 1200 x 600	600 x 600		600 x 600			
System	Exposed demountable - System C						
Weight	<b>3.6 kg / m<sup>2</sup></b>						
Colour	 White						
Sound absorption	EN ISO 354 $\alpha_w = 0.20$ (L) as per EN ISO 11654 - Class E						
	Frequency f (Hz)						
		125	250	500	1000	2000	4000
	$\alpha_p$						
	0.40	0.25	0.15	0.15	0.20	0.30	
	NRC = 0.20 as per ASTM C 423						
Sound attenuation	EN ISO 10848-2 $D_{n,f,w} = 35$ dB as per EN ISO 717-1			CAC = 35 dB as per ASTM E 413-10			
Sound reduction	EN ISO 10140-2 $R_w = 19$ dB as per EN ISO 717-1						
Fire reaction	Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance	<b>88%</b>						
Thermal conductivity	$\lambda = 0.060$ W/mK as per EN 12667						
Air permeability	<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance	<b>95% RH</b>						
Clean room	<b>ISO 4</b> as per EN ISO 14644-1						
Risk level	<b>Zone 4</b> (Very High Risk) as per NF S 90-351:2013						
Microbiological Cleanliness	<b>M1</b> as per NF S 90-351:2013						
Kinetics of particle decontamination	<b>CP<sub>(0,5)</sub>5</b> as per NF S 90-351:2013						
Indoor air quality							
Cleanability							
Anti-microbial characteristics	Tested against: Escherichia coli, Staphylococcus aureus, Bacillus cereus, Streptococcus pneumoniae, Acinobacter baumannii, Klebsiella pneumoniae, Candida albicans, Aspergillus brasiliensis						
Sustainability							
	EN ISO 14021	24%					BIOSOLUBLE WOOD EC 1272/2008 Annex G
		(2023)					

In addition to risk level, each room type will have specific requirement for the cleanability and air leakage of the ceiling tile. Therefore, a tile which meets risk zone 4 requirements may not necessarily be suitable for all room types defined in risk zone 4.

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## HYGENA Aquatec



GRADED SCHOOL, Brazil, ©Alessandro Couto

HYGENA Aquatec is the ideal solution for high-humidity areas of up to 100% RH. It offers excellent sound absorption, and its washable, which makes it the perfect solution for hygiene and healthcare environments. The surface is washable and anti-microbial.

- Limits the growth of bacteria and fungi
- Ideal solution for high humidity areas of up to 100% RH
- Excellent acoustics with Class A level
- Complies with Zone 4 risk requirements according to NF S 90-351:2013
- Can be cleaned with high pressure device and resists to disinfectants
- ISO 3
- Ideal for healthcare environments, food industry, laboratories, treatment rooms, intensive care units, locker rooms or shower areas

## HYGENA Aquatec

Characteristic	Detailed information																			
Edge details		<b>Board</b> 	<b>Tegular 24/90</b> 	<b>Tegular 15/90</b> 	<b>Finesse</b> 															
Thickness (mm)		19	19	19	19															
Dimensions (mm)		600 x 600 610 x 610 625 x 625 1200 x 600 1220 x 610 1250 x 625	600 x 600 610 x 610 625 x 625	600 x 600 610 x 610 625 x 625	600 x 600 625 x 625															
System		Exposed demountable - System C			Concealed, demountable - System A.2 / A.3															
Weight		<b>5.2 kg / m<sup>2</sup></b>																		
Colour		 White																		
Sound absorption		EN ISO 354 $\alpha_w = 0.90$ as per EN ISO 11654 - Class A <table border="1"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td><math>\alpha_p</math></td> <td>0.60</td> <td>0.70</td> <td>0.85</td> <td>0.90</td> <td>1.00</td> <td>1.00</td> </tr> </tbody> </table> NRC = 0.90 as per ASTM C 423					Frequency f (Hz)	125	250	500	1000	2000	4000	$\alpha_p$	0.60	0.70	0.85	0.90	1.00	1.00
Frequency f (Hz)	125	250	500	1000	2000	4000														
$\alpha_p$	0.60	0.70	0.85	0.90	1.00	1.00														
Sound attenuation		EN ISO 10848-2 $D_{n,t,w} = 29$ dB as per EN ISO 717-1			CAC = 29 dB as per ASTM E 413-10															
Sound reduction		EN ISO 10140-2 $R_w = 16$ dB as per EN ISO 717-1																		
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84																		
Light reflectance		<b>88%</b>																		
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667																		
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>2</sup> /hm <sup>2</sup> ) as per DIN 18177																		
Humidity resistance		<b>100% RH</b>																		
Clean room		<b>ISO 3</b> as per EN ISO 14644-1																		
Risk level		<b>Zone 4</b> (Very High Risk) as per NF S 90-351:2013																		
Microbiological Cleanliness		<b>M1</b> as per NF S 90-351:2013																		
Kinetics of particle decontamination		<b>CP<sub>(0,5)</sub>5</b> as per NF S 90-351:2013																		
Indoor air quality		 A+	 E1	 IACG																
Cleanability / Sustainability						 EN ISO 14021 52% (2023)														
Anti-microbial characteristics		Tested against: Escherichia coli, Staphylococcus aureus, Candida albicans																		

In addition to risk level, each room type will have specific requirement for the cleanability and air leakage of the ceiling tile. Therefore, a tile which meets risk zone 4 requirements may not necessarily be suitable for all room types defined in risk zone 4.

## HYGENA Alpha



HYGENA Alpha offers a modern, white appearance and is the optimal solution for spaces that need excellent sound absorption. The surface is washable and antimicrobial.

- Limits the growth bacteria and fungi
- Cleanable with dry and damp cloth
- White appearance and excellent acoustics with Class A level
- Complies with Zone 4 risk requirements according to NF S 90-351:2013
- Ideal for healthcare facilities, food industry, laboratories, etc.

### HYGENA Alpha

Characteristic	Detailed information						
	Board	Tegular 24/90	Tegular 15/90				
Edge details							
Thickness (mm)	19	19	19				
Dimensions (mm)	600 x 600 610 x 610 625 x 625 1200 x 600 1220 x 610 1250 x 625	600 x 600 610 x 610 625 x 625	600 x 600 610 x 610 625 x 625				
System	Exposed demountable - System C						
Weight	3.3 kg / m <sup>2</sup>						
Colour	 White						
Sound absorption	EN ISO 354 $\alpha_w = 0.95$ as per EN ISO 11654 - Class A						
	Frequency f (Hz)	125	250	500	1000	2000	4000
	$\alpha_p$	0.50	0.80	0.90	0.90	1.00	1.00
	NRC = 0.90 as per ASTM C 423						
Sound attenuation	EN ISO 10848-2 $D_{n,r,w} = 28$ dB as per EN ISO 717-1		CAC = 29 dB as per ASTM E 413-10				
Sound reduction	EN ISO 10140-2 $R_w = 14$ dB as per EN ISO 717-1						
Fire reaction	Euroclass A2-s1, d0 as per EN 13501-1 Class A as per ASTM E 84						
Light reflectance	87%						
Thermal conductivity	$\lambda = 0.040$ W/mK as per EN 12667						
Air permeability	PM1 ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance	95% RH						
Clean room	ISO 4 as per EN ISO 14644-1						
Risk level	Zone 4 (Very High Risk) as per NF S 90-351:2013						
Microbiological Cleanliness	M1 as per NF S 90-351:2013						
Kinetics of particle decontamination	CP <sub>(0,5)</sub> 5 as per NF S 90-351:2013						
Indoor air quality	 A+	 E1	 IACC	 EN 13964			
Cleanability / Sustainability	 Washable	 Sustainable	 60% (2023)	 BIODEGRADABLE WOOD			
Anti-microbial characteristics	Tested against: Escherichia coli, Staphylococcus aureus, Candida albicans, Aspergillus niger						

In addition to risk level, each room type will have specific requirement for the cleanability and air leakage of the ceiling tile. Therefore, a tile which meets risk zone 4 requirements may not necessarily be suitable for all room types defined in risk zone 4.

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## HYGENA Acoustic 15mm



The laminated finish of HYGENA Acoustic creates a smooth, white appearance. It provides good levels of sound absorption and excellent sound attenuation. The surface is washable and anti-microbial.

- Limits the growth of bacteria and fungi
- Cleanable with dry and damp cloth
- Smooth, white appearance and good levels of acoustics
- Complies with Zone 4 risk requirements according to NF S 90-351:2013
- Excellent light reflectance (87%)
- Ideal for healthcare facilities, food industry, laboratories, etc.

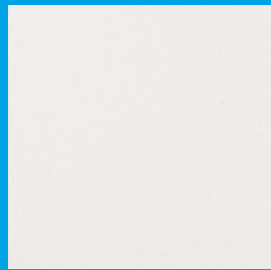
### HYGENA Acoustic 15mm

Characteristic	Detailed information						
	Board	Tegular 24/90	Tegular 15/90				
Edge details							
Thickness (mm)	15	15	15				
Dimensions (mm)	600 x 600 610 x 610 625 x 625 1200 x 600 1220 x 610 1250 x 625	600 x 600 610 x 610 625 x 625	600 x 600 610 x 610 625 x 625				
System	Exposed demountable - System C						
Weight	2.9 kg / m <sup>2</sup>						
Colour	 White						
Sound absorption	EN ISO 354 $\alpha_w = 0.80$ (H) as per EN ISO 11654 - Class B						
	Frequency f (Hz)	125	250	500	1000	2000	4000
	$\alpha_p$	0.55	0.75	0.80	0.75	0.95	1.00
	NRC = 0.85 as per ASTM C 423						
Sound attenuation	EN ISO 10848-2 $D_{n,f,w} = 28$ dB as per EN ISO 717-1		CAC = 29 dB as per ASTM E 413-10				
Sound reduction	EN ISO 10140-2 $R_w = 13$ dB as per EN ISO 717-1						
Fire reaction	Euroclass A2-s1, d0 as per EN 13501-1 Class A as per ASTM E 84						
Light reflectance	87%						
Thermal conductivity	$\lambda = 0.040$ W/mK as per EN 12667						
Humidity resistance	95% RH						
Clean room	ISO 4 as per EN ISO 14644-1						
Risk level	Zone 4 (Very High Risk) as per NF S 90-351:2013						
Microbiological Cleanliness	M1 as per NF S 90-351:2013						
Kinetics of particle decontamination	CP <sub>(0,5)</sub> 5 as per NF S 90-351:2013						
Indoor air quality	 A+	 E1	 IACG				
Cleanability / Sustainability			 48% (2023)	 EC 1272/2008 Annex 6			
Anti-microbial characteristics	Tested against: Escherichia coli, Staphylococcus aureus, Candida albicans, Aspergillus niger						

In addition to risk level, each room type will have specific requirement for the cleanability and air leakage of the ceiling tile. Therefore, a tile which meets risk zone 4 requirements may not necessarily be suitable for all room types defined in risk zone 4.

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## HYGENA Plain



HYGENA Plain offers a white, smooth surface that creates an elegant ceiling appearance and provides excellent light reflection. The surface is washable and anti-microbial.

- Limits the growth of bacteria and fungi
- Cleanable with dry and damp cloth
- White, smooth surface that provides excellent light reflection
- Complies with Zone 4 risk requirements according to NF S 90-351:2013
- Ideal for healthcare environments and laboratories

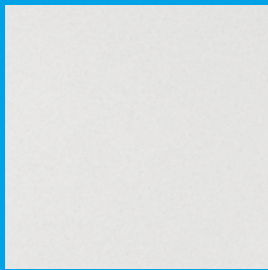
### HYGENA Plain

Characteristic	Detailed information							
Edge details		<b>Board</b> 	<b>Tegular 24</b> 	<b>Tegular 15</b> 				
Thickness (mm)		15	15	15				
Dimensions (mm)		600 x 600 610 x 610 1200 x 600 1220 x 610	600 x 600	600 x 600				
System		Exposed demountable - System C						
Weight		<b>3.8 kg / m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.20$ (L) as per EN ISO 11654 - Class E						
		<b>Frequency f (Hz)</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$	0.45	0.25	0.15	0.15	0.20	0.25
		NRC = 0.20 as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 34$ dB as per EN ISO 717-1		CAC = 36 dB as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 $R_w = 21$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance		<b>87%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mK as per EN 12667						
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance		<b>95% RH</b>						
Clean room		<b>ISO 4</b> as per EN ISO 14644-1						
Risk level		<b>Zone 4</b> (Very High Risk) as per NF S 90-351:2013						
Microbiological Cleanliness		<b>M1</b> as per NF S 90-351:2013						
Kinetics of particle decontamination		<b>CP<sub>(0,5)</sub> 5</b> as per NF S 90-351:2013						
Indoor air quality		 A+	 E1	 IACG				
Cleanability / Sustainability				 26% (2023)	 EC 12722008 Annex G			
Anti-microbial characteristics		Tested against: Escherichia coli, Staphylococcus aureus, Candida albicans, Aspergillus niger						

In addition to risk level, each room type will have specific requirement for the cleanability and air leakage of the ceiling tile. Therefore, a tile which meets risk zone 4 requirements may not necessarily be suitable for all room types defined in risk zone 4.

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Aquatec



GRADED SCHOOL, Brazil, © Alessandro Couto

AMF THERMATEX® Aquatec is the optimal solution for high humidity areas of up to 100% RH. It offers excellent sound absorption, and is suitable for high pressure water cleaning. Its high-quality design makes it the ideal solution for hygiene and healthcare environments

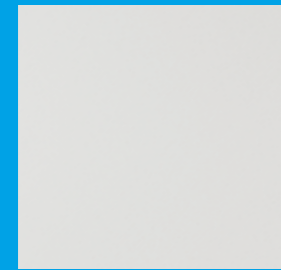
- Excellent sound absorption (0.90  $\alpha_w$ )
- Excellent light reflectance (88%)
- ISO 3
- Ideal for healthcare environments, laboratories, treatment rooms, locker rooms or shower areas

### AMF THERMATEX® Aquatec

Characteristic	Detailed information								
Edge details		<b>Board</b> 	<b>Tegular 24/90</b> 	<b>Tegular 15/90</b> 	<b>Finesse</b> 				
Thickness (mm)		19	19	19	19				
Dimensions (mm)		600 x 600 625 x 625	600 x 600 625 x 625	600 x 600 625 x 625	600 x 600 625 x 625				
System		Exposed demountable - System C			Concealed, demountable - System A.2 / A.3				
Weight		<b>5.2 kg / m<sup>2</sup></b>							
Colour		 White							
Sound absorption		EN ISO 354 $\alpha_w = 0.90$ as per EN ISO 11654 - <b>Class A</b>							
		Frequency f (Hz)		<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$		0.60	0.70	0.85	0.90	1.00	1.00
		NRC = <b>0.90</b> as per ASTM C 423							
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 29$ dB as per EN ISO 717-1			CAC = <b>29 dB</b> as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 $R_w = 16$ dB as per EN ISO 717-1							
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84							
Light reflectance		<b>88%</b>							
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667							
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance		<b>100% RH</b>							
Clean room		<b>ISO 3</b> as per EN ISO 14644-1							
Indoor air quality		 A+	 E1	 IACG					
Cleanability									
Sustainability		 51.7% (2023)	 EN 15804	 EC 1272/2008 Annex G		<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>			

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Thermaclean



LUCRON Seinerka Business Centre, Slovakia, © BoysPlayNice

AMF THERMATEX® Thermaclean combines excellent cleanability with good resistance to germs and fungi. It has a laminated finish with a white vinyl foil, that ensures a timeless look

- Good sound attenuation (34 dB)
- ISO 4
- Ideal for healthcare environments, laboratories, treatment rooms, intensive care units

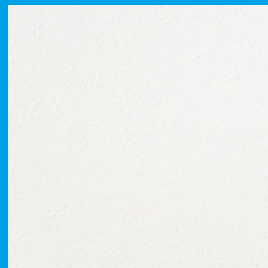
Build on us.

### AMF THERMATEX® Thermaclean

Characteristic	Detailed information														
Edge details		<b>Board</b> 													
Thickness (mm)		19													
Dimensions (mm)		600 x 600													
System		Exposed demountable - System C													
Weight		<b>3.3 kg / m<sup>2</sup></b>													
Colour		 White													
Sound absorption		EN ISO 354 $\alpha_w = 0.95$ as per EN ISO 11654 - Class A													
		Frequency f (Hz)													
		<table border="1"> <tr> <td></td> <td>125</td> <td>250</td> <td>500</td> <td>1000</td> <td>2000</td> <td>4000</td> </tr> <tr> <td><math>\alpha_p</math></td> <td>0.50</td> <td>0.80</td> <td>0.90</td> <td>0.90</td> <td>1.00</td> <td>1.00</td> </tr> </table>		125	250	500	1000	2000	4000	$\alpha_p$	0.50	0.80	0.90	0.90	1.00
	125	250	500	1000	2000	4000									
$\alpha_p$	0.50	0.80	0.90	0.90	1.00	1.00									
	NRC = 0.90 as per ASTM C 423														
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 28$ dB as per EN ISO 717-1 <b>CAC = 29 dB</b> as per ASTM E 413-10													
Sound reduction		EN ISO 10140-2 $R_w = 14$ dB as per EN ISO 717-1													
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1													
Light reflectance		<b>88%</b>													
Thermal conductivity		$\lambda = 0.040$ W/mk as per EN 12667													
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177													
Humidity resistance		<b>95% RH</b>													
Clean room		<b>ISO 4</b> as per EN ISO 14644-1													
Indoor air quality															
		A+ E1													
Cleanability															
Sustainability															
		26.2% (2023)													

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## NEWTONE



LUCRON Seinerka Business Centre, Slovakia, © BoysPlayNice

NEWTONE is a hydrated calcium silicate ceiling tile offering 100% RH performance and is suitable for use in areas subject to extremes of humidity and temperature

- High sound attenuation (37 dB)
- Ideal for spas and water parks

Build on us.

## NEWTONE

Characteristic	Detailed information															
Edge details		<b>Board</b>														
Additional edge details on request																
Thickness (mm)		6														
Dimensions (mm)		600 x 600														
System		Exposed demountable - System C														
Weight		<b>8.0 kg / m<sup>2</sup></b>														
Colour		 White														
Sound absorption		EN ISO 354 $\alpha_w = 0.10(L)$ as per EN ISO 11654 - <b>Class N/A</b>														
		<table border="1"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td><math>\alpha_p</math></td> <td>0.25</td> <td>0.15</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> <td>0.05</td> </tr> </tbody> </table>	Frequency f (Hz)	125	250	500	1000	2000	4000	$\alpha_p$	0.25	0.15	0.10	0.10	0.10	0.05
	Frequency f (Hz)	125	250	500	1000	2000	4000									
$\alpha_p$	0.25	0.15	0.10	0.10	0.10	0.05										
	NRC = <b>0.10</b> as per ASTM C 423															
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 37$ dB as per EN ISO 717-1														
Fire reaction		Euroclass <b>A1</b> as per EN 13501-1														
Light reflectance		<b>84%</b>														
Humidity resistance		<b>100% RH</b>														
Indoor air quality																
Cleanability																

In all environments where humidity conditions could regularly reach and/or exceed 90% RH we recommend the use of 24mm corrosive resistant grid and associated accessories.



## ***THE SMOOTH WHITE ACOUSTIC RANGE***

The Smooth White Acoustic range has the widest choice of edges, modules and acoustic options. Designed to provide flexibility and complete noise control for every space – whether it's high sound absorption, high sound attenuation or a balance of both. Thanks to the smooth white surface, these aesthetically pleasing ceilings also offer high levels of light reflectance and energy saving benefits.



© Dion de Bakker

# *Smooth White Acoustic*

## AMF THERMATEX® Acoustic



Dr. Nassau College Quintus, Assen, Netherlands © Dion de Bakker

The laminated finish of AMF THERMATEX® Acoustic creates a smooth, white appearance and provides good levels of sound absorption and excellent sound attenuation

- Good sound absorption (0.65 (H)  $\alpha_w$ )
- Excellent sound attenuation (40 dB; SL2)
- High sound attenuation (38 dB; Board, Tegular 24/90, Tegular 15/90, Vector, Finesse)
- Excellent light reflectance (88%)
- ISO 4
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

**Build on us.**

### AMF THERMATEX® Acoustic

Characteristic	Detailed information								
Edge details		Board	Tegular 24/90	Tegular 15/90	SL2	Vector	Finesse		
Additional edge details on request									
Thickness (mm)		19	19	19	19	24	19		
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600	600 x 600 1200 x 600	1200 x 300 1500 x 300 1800 x 300 2000 x 300 2500 x 300	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600 1250 x 625		
System		Exposed demountable - System C			Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2	Semi-concealed tiles, demountable - System C	Concealed, demountable - System A.2 / A.3		
Weight		5.0 - 8.6 kg / m <sup>2</sup>							
Colour		 White							
Sound absorption		EN ISO 354		$\alpha_w = 0.65$ (H) as per EN ISO 11654 - Class C					
		Frequency f (Hz)		125	250	500	1000	2000	4000
		$\alpha_p$ Board, Tegular 24/90, Tegular 15/90, Finesse, SL2		0.50	0.45	0.60	0.85	0.95	0.95
		$\alpha_p$ Vector		0.45	0.40	0.60	0.80	0.90	1.00
NRC = 0.70 as per ASTM C 423									
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 38$ dB (Board, Tegular 24/90, Tegular 15/90, Vector, Finesse) as per EN ISO 717-1 $D_{n,w} = 40$ dB (SL2) as per EN ISO 717-1				CAC = 39 dB (Board, Tegular 24/90, Tegular 15/90, Vector, Finesse) as per ASTM E 413-10			
Sound reduction		EN ISO 10140-2 $R_w = 22$ dB as per EN ISO 717-1							
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84							
Light reflectance		<b>88%</b>							
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667							
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance		<b>95% RH</b>							
Clean room		<b>ISO 4</b> as per EN ISO 14644-1							
Indoor air quality		 A+	 E1	 IACG					
Cleanability/ Sustainability			 EN ISO 14621	 EN 15804	 BIOSOLUBLE WOOL EC 1272/2008 Annex G	 EPD	 cradle to cradle 1300123		
				35-36.9% (2023)					

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Alpha



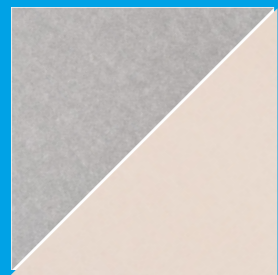
AMF THERMATEX® Alpha offers a modern, white appearance and is the optimal solution for spaces that need excellent sound absorption

- Excellent sound absorption (0.90  $\alpha_w$ )
- Good sound attenuation (34 dB)
- Excellent light reflectance (88%)
- ISO 4
- Ideal for offices, classrooms, learning applications and corridors

### AMF THERMATEX® Alpha

Characteristic	Detailed information								
Edge details		<b>Board</b> 	<b>Tegular 24/90</b> 	<b>Tegular 15/90</b> 					
Thickness (mm)		19	19	19					
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600					
System		Exposed demountable - System C							
Weight		<b>3.3 kg / m<sup>2</sup></b>							
Colour		 White							
Sound absorption		EN ISO 354		$\alpha_w = 0.95$ as per EN ISO 11654 - <b>Class A</b>					
		Frequency f (Hz)		<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$		0.50	0.80	0.90	0.90	1.00	1.00
NRC = <b>0.90</b> as per ASTM C 423									
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 28$ dB as per EN ISO 717-1		CAC = <b>29 dB</b> as per ASTM E 413-10					
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84							
Light reflectance		<b>88%</b>							
Thermal conductivity		$\lambda = 0.040$ W/mk as per EN 12667							
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance		<b>95% RH</b>							
Clean room		<b>ISO 4</b> as per EN ISO 14644-1							
Indoor air quality		 A+	 E1	 IACG					
Cleanability									
Sustainability		 49.3% (2023)	 EN 15804	 IC 1272/2008 Annex G	 M1	 BRONZE	 <a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>		

## AMF THERMATEX® Alpha Colour



MULTIPLEX Cinema Kiev, Ukraine © Sergiy Kadulin

AMF THERMATEX® Alpha Colour provides a modern appearance and is the optimal solution for spaces that require outstanding sound absorption. In addition to cream, black and silver, the acoustic range is also available in granite, steel, green marble, copper, oak, brass, sandstone and concrete Vario Design colours

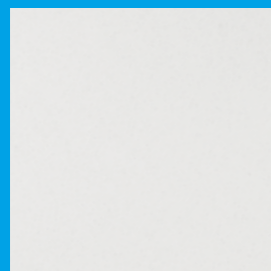
- Excellent sound absorption (0.95  $\alpha_w$ )
- Ideal for offices, restaurants, cinemas, classrooms and learning applications

### AMF THERMATEX® Alpha Colour

Characteristic	Detailed information																						
Edge details		Board																					
Additional edge details on request																							
Thickness (mm)		19																					
Dimensions (mm)		600 x 600 610 x 610 625 x 625																					
System		Exposed demountable - System C																					
Weight		3.3 kg / m <sup>2</sup>																					
Colour		<p><b>Vario Design Colours</b></p> <p>Black Silver Cream Granite Steel Green Marble Copper Oak Brass Sandstone Concrete</p>																					
Sound absorption		<p>EN ISO 354 <math>\alpha_w = 1.00</math> as per EN ISO 11654 - Class A (Black) <math>\alpha_w = 0.95</math> as per EN ISO 11654 - Class A (other colours)</p> <table border="1"> <thead> <tr> <th>Frequency f (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td><math>\alpha_p</math> Black</td> <td>0.45</td> <td>0.80</td> <td>0.95</td> <td>0.95</td> <td>1.00</td> <td>1.00</td> </tr> <tr> <td><math>\alpha_p</math> Other colours</td> <td>0.50</td> <td>0.80</td> <td>0.90</td> <td>0.90</td> <td>1.00</td> <td>1.00</td> </tr> </tbody> </table> <p>NRC = 0.90 as per ASTM C 423</p>	Frequency f (Hz)	125	250	500	1000	2000	4000	$\alpha_p$ Black	0.45	0.80	0.95	0.95	1.00	1.00	$\alpha_p$ Other colours	0.50	0.80	0.90	0.90	1.00	1.00
Frequency f (Hz)	125	250	500	1000	2000	4000																	
$\alpha_p$ Black	0.45	0.80	0.95	0.95	1.00	1.00																	
$\alpha_p$ Other colours	0.50	0.80	0.90	0.90	1.00	1.00																	
Sound attenuation		<p>EN ISO 10848-2 <math>D_{n,f,w} = 28</math> dB as per EN ISO 717-1</p> <p>CAC = 29 dB as per ASTM E 413-10</p>																					
Sound reduction		<p>EN ISO 10140-2 <math>R_w = 14</math> dB as per EN ISO 717-1</p>																					
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1																					
Thermal conductivity		$\lambda = 0.040$ W/mk as per EN 12667																					
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177																					
Humidity resistance		<b>95% RH</b>																					
Indoor air quality		<p>A+ E1</p>																					
Cleanability																							
Sustainability		<p>49.3% (2023)</p>																					

Options with this icon are available from our Vario Design range. Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Alpha HD 19mm



Bühler Motoren, Germany © Rainer Taepper Architekturfotografie

AMF THERMATEX® Alpha HD 19mm offers a modern, white appearance and is the optimal solution for spaces that need a combination of excellent sound absorption and good sound attenuation

- Excellent sound absorption (0.90  $\alpha_w$ )
- Good sound attenuation (34 dB)
- Excellent light reflectance (88%)
- ISO 4
- Ideal for offices, classrooms, learning applications and corridors

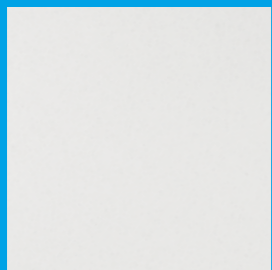
**Build on us.**

### AMF THERMATEX® Alpha HD 19mm

Characteristic	Detailed information								
Edge details		<b>Board</b>	<b>Tegular 24/90</b>	<b>Tegular 15/90</b>	<b>SL2</b>	<b>Finesse</b>			
Thickness (mm)		19	19	19	19	19			
Dimensions (mm)		600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1500 x 600 1800 x 600	600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1500 x 600 1800 x 600	600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600 1250 x 625 1350 x 300 1350 x 600 1500 x 600 1800 x 600	1350 x 300 1350 x 600 1500 x 300 1800 x 300 2000 x 300	600 x 600 625 x 625 1200 x 600 1250 x 625			
System		Exposed demountable - System C	Exposed, demountable - System C Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	Exposed, demountable - System C Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2	Concealed, demountable - System A.2 / A.3				
Weight		<b>5.2 kg / m<sup>2</sup></b>							
Colour		 White							
Sound absorption		EN ISO 354 $\alpha_w = 0.90$ as per EN ISO 11654 - Class A							
		Frequency f (Hz)							
			125	250	500	1000	2000	4000	
		$\alpha_p$							
		0.50							
		0.70							
		0.80							
		0.90							
		1.00							
		1.00							
		NRC = 0.85 as per ASTM C 423							
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 34$ dB as per EN ISO 717-1					CAC = 35 dB as per ASTM E 413-10		
Sound reduction		EN ISO 10140-2 $R_w = 17$ dB as per EN ISO 717-1							
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1							
Light reflectance		<b>88%</b>							
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667							
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance		<b>95% RH</b>							
Clean room		<b>ISO 4</b> as per EN ISO 14644-1							
Indoor air quality									
		A+	E1	IACG					
Cleanability / Sustainability									
				EN ISO 14021 49.1% (2023)	EN 15004	IC 1272/2008 Annex D	M1	CERTIFIED cradle to cradle BRONZE	www.blauer-engel.de/uz132

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Alpha HD 30mm



Siemens Office, Kyiv, Ukraine © Sergiy Kadulin

AMF THERMATEX® Alpha HD 30mm offers a modern, white appearance and is the optimal solution for spaces that need excellent sound absorption and sound attenuation

- Excellent sound absorption (0.90  $\alpha_w$ )
- Excellent sound attenuation (40 dB)
- Excellent light reflectance (88%)
- ISO 4
- Ideal for offices, classrooms and learning applications

### AMF THERMATEX® Alpha HD 30mm

Characteristic	Detailed information							
	Board	Tegular 24/90	Tegular 15/90	SL2	Finesse			
Edge details								
Additional edge details on request								
Thickness (mm)	30	30	30	30	30			
Dimensions (mm)	600 x 600 625 x 625 675 x 675 1200 x 600 1250 x 625	600 x 600 625 x 625 675 x 675 1200 x 600 1250 x 625	600 x 600 625 x 625 675 x 675 1200 x 600 1250 x 625 1350 x 300 1350 x 600	1350 x 300 1350 x 600 1500 x 300 1800 x 300 2000 x 300	600 x 600 625 x 625 1200 x 600 1250 x 625			
System	Exposed demountable - System C	Exposed, demountable - System C Exposed - Bandraaster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	Exposed, demountable - System C Exposed - Bandraaster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraaster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2	Concealed, demountable - System A.2 / A.3			
Weight	8.2 kg / m <sup>2</sup>							
Colour	 White							
Sound absorption	EN ISO 354		$\alpha_w = 0.90$ as per EN ISO 11654 - Class A					
	Frequency f (Hz)		125	250	500	1000	2000	4000
	$\alpha_p$		0.55	0.70	0.85	1.00	1.00	1.00
	NRC = 0.90 as per ASTM C 423							
Sound attenuation	EN ISO 10848-2 $D_{n,w} = 40$ dB as per EN ISO 717-1		CAC = 41 dB as per ASTM E 413-10					
Sound reduction	EN ISO 10140-2 $R_w = 22$ dB as per EN ISO 717-1							
Fire reaction	Euroclass A2-s1, d0 as per EN 13501-1							
Light reflectance	88%							
Thermal conductivity	$\lambda = 0.060$ W/mk as per EN 12667							
Air permeability	PM1 ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance	95% RH							
Clean room	ISO 4 as per EN ISO 14644-1							
Indoor air quality	 A+ A1 B1 C	 EN 13964 E1	 WISDOM AIR COMFORT GOLD IACG CERTIFIED PRODUCT					
Cleanability								
Sustainability	 EN ISO 14021 49.9% (2023)	 EPD EN 15804	 BIOSOLUBLE WOOL EC 1272/2008 Annex G	 M1	 cradle to cradle BRONZE	 www.blauer-engel.de/uz132		

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Alpha HD 35mm



Sener Office Barcelona, Spain © Victor Sajara Photography

AMF THERMATEX® Alpha HD 35mm offers a modern, white appearance and is the optimal solution for spaces that need excellent sound absorption and sound attenuation

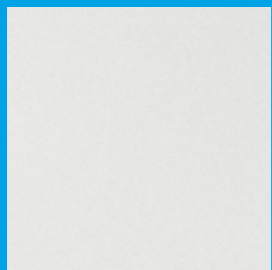
- Excellent sound absorption (0.90  $\alpha_w$ )
- Excellent sound attenuation (42 dB)
- Excellent light reflectance (88%)
- ISO 4
- Ideal for offices, classrooms and learning applications

## AMF THERMATEX® Alpha HD 35mm

Characteristic	Detailed information									
Edge details		<b>Board</b>	<b>Tegular 24/90</b>	<b>Tegular 15/90</b>	<b>SL2</b>					
Additional edge details on request										
Thickness (mm)		35	35	35	35					
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600 1250 x 625 1350 x 300 1350 x 600	1350 x 300 1350 x 600 1500 x 300 1800 x 300 2000 x 300					
System		Exposed demountable - System C		Exposed, demountable - System C Exposed - Bandraaster, demountable - System I.3 Exposed - Corridor, demountable - System F.3		Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraaster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2				
Weight		<b>9.5 kg / m<sup>2</sup></b>								
Colour		 White								
Sound absorption		EN ISO 354 $\alpha_w = 0.90$ as per EN ISO 11654 - Class A								
		Frequency f (Hz)			125	250	500	1000	2000	4000
		$\alpha_p$			0.40	0.65	0.85	1.00	1.00	1.00
		NRC = 0.85 as per ASTM C 423								
Sound attenuation		EN ISO 10848-2 $D_{n,T,W} = 42$ dB as per EN ISO 717-1			CAC = 44 dB as per ASTM E 413-10					
Sound reduction		EN ISO 10140-2 $R_w = 25$ dB as per EN ISO 717-1								
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1								
Light reflectance		<b>88%</b>								
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667								
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177								
Humidity resistance		<b>95% RH</b>								
Clean room		<b>ISO 4</b> as per EN ISO 14644-1								
Indoor air quality		 A+	 E1	 IACG						
Cleanability										
Sustainability		 50.4% (2023)	 EN 15804	 IC 1272/2008 Annex D	 M1	 cradle to cradle	 www.bauer-engel.de/uz132			

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Alpha One



AMF THERMATEX® Alpha One offers a modern, white appearance and is the optimal solution for spaces that need excellent sound absorption

- Excellent sound absorption (1.00  $\alpha_w$ )
- Excellent light reflectance (88%)
- ISO 4
- Ideal for offices, classrooms and learning applications

### AMF THERMATEX® Alpha One

Characteristic	Detailed information							
	Board	Tegular 24/90	Taular 15/90					
Edge details	Board	Tegular 24/90	Taular 15/90					
Thickness (mm)	24	24	24					
Dimensions (mm)	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600					
System	Exposed demountable - System C							
Weight	4.0 kg / m <sup>2</sup>							
Colour	White							
Sound absorption	EN ISO 354 $\alpha_w = 1.00$ as per EN ISO 11654 - Class A							
	Frequency f (Hz)	125	250	500	1000	2000	4000	
	$\alpha_p$	0.55	0.85	1.00	0.95	1.00	1.00	
	NRC = 1.00 as per ASTM C 423							
Sound attenuation	EN ISO 10848-2 $D_{n,f,w} = 29$ dB as per EN ISO 717-1							
Sound reduction	EN ISO 10140-2 $R_w = 17$ dB as per EN ISO 717-1							
Fire reaction	Euroclass A2-s1, d0 as per EN 13501-1 Class A as per ASTM E 84							
Light reflectance	88%							
Thermal conductivity	$\lambda = 0.040$ W/mk as per EN 12667							
Air permeability	PM1 ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance	95% RH							
Clean room	ISO 4 as per EN ISO 14644-1							
Indoor air quality	A+	E1	IACG					
Cleanability / Sustainability	Cleanability	Sustainability	EN ISO 14021 50.8% (2023)	EPD EN 15804	BIOSOLUBLE WOOL EC 1272/2008 Annex O	M1	cradle to cradle 100022	BLUE ANGEL www.blauer-engel.de/uz132



© HR OHBP, KBC Osijek (Clinical Medical Center)

## AMF THERMATEX® dB Acoustic



AMF THERMATEX® dB Acoustic is the ideal solution for spaces requiring excellent sound attenuation and good sound absorption. It provides a simple yet timeless design finish to any space

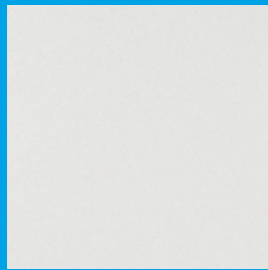
- Good sound absorption (0.65 (H)  $\alpha_w$ )
- Excellent sound attenuation (24mm thickness: 41dB - 30mm thickness: 43dB)
- Excellent light reflectance (88%)
- ISO 4
- Ideal for offices, meeting rooms and learning applications or corridors

### AMF THERMATEX® dB Acoustic

Characteristic	Detailed information								
Edge details		<b>Board</b>	<b>Tegular 24</b>		<b>Tegular 15</b>				
Additional edge details on request									
Thickness (mm)		24, 30	24		24				
Dimensions (mm)		600 x 600	600 x 600		600 x 600				
System		Exposed demountable - System C							
Weight		<b>8.6 - 10.6 kg / m<sup>2</sup></b>							
Colour		 White							
Sound absorption		EN ISO 354		$\alpha_w = 0.65$ (H) as per EN ISO 11654 - Class C					
		Frequency f (Hz)		125	250	500	1000	2000	4000
		$\alpha_p$ Board (24mm), Tegular 24, Tegular 15		0.40	0.45	0.60	0.80	0.95	0.95
		$\alpha_p$ Board (30mm)		0.35	0.40	0.65	0.85	0.90	0.95
NRC = 0.70 as per ASTM C 423									
Sound attenuation		EN ISO 10848-2		$D_{n,f,w} = 41$ dB (24mm) as per EN ISO 717-1		$D_{n,f,w} = 43$ dB (30mm) as per EN ISO 717-1			
CAC = 43 dB (24mm) as per ASTM E 413-10									
Sound reduction		EN ISO 10140-2		$R_w = 24$ dB (24mm) as per EN ISO 717-1		$R_w = 25$ dB (30mm) as per EN ISO 717-1			
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84							
Light reflectance		<b>88%</b>							
Thermal conductivity		$\lambda = 0.075$ W/mk as per EN 12667							
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177							
Humidity resistance		<b>95% RH</b>							
Clean room		<b>ISO 4</b> as per EN ISO 14644-1							
Indoor air quality									
Cleanability									
Sustainability									
		36.8-37% (2023)							

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Thermofon



EGLO Lighting Kiev, Ukraine, © Knauf Ceiling Solutions

AMF THERMATEX® Thermofon features a smooth, white laminated finish and modern design visual. It provides high sound absorption for enhanced acoustic comfort

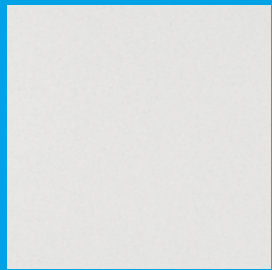
- High sound absorption (0.80 (H)  $\alpha_w$ )
- Excellent light reflectance (88%)
- ISO 4
- Ideal for offices, classrooms and learning applications

### AMF THERMATEX® Thermofon

Characteristic	Detailed information						
	Board	Tegular 24/90	Tegular 15/90				
Edge details							
Additional edge details on request							
Thickness (mm)	15	15	15				
Dimensions (mm)	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600				
System	Exposed demountable - System C						
Weight	2.9 kg / m <sup>2</sup>						
Colour	 White						
Sound absorption	EN ISO 354 $\alpha_w = 0.80$ (H) as per EN ISO 11654 - Class B						
	Frequency f (Hz)	125	250	500	1000	2000	4000
	$\alpha_p$	0.55	0.75	0.75	0.80	0.95	1.00
	NRC = 0.85 as per ASTM C 423						
Sound attenuation	EN ISO 10848-2 $D_{n,r,w} = 28$ dB as per EN ISO 717-1		CAC = 29 dB as per ASTM E 413-10				
Sound reduction	EN ISO 10140-2 $R_w = 13$ dB as per EN ISO 717-1						
Fire reaction	Euroclass A2-s1, d0 as per EN 13501-1 Class A as per ASTM E 84						
Light reflectance	88%						
Thermal conductivity	$\lambda = 0.040$ W/mk as per EN 12667						
Humidity resistance	95% RH						
Clean room	ISO 4 as per EN ISO 14644-1						
Indoor air quality							
Cleanability							
Sustainability							
	47.8-48% (2023)		www.blauer-engel.de/uz132				

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Acoustic RL



The laminated finish of AMF THERMATEX® Acoustic RL creates a smooth, white appearance and provides good levels of sound absorption and excellent sound attenuation.

- Due to having the same surface finish, it can be used in the same ceiling along other products of the THERMATEX® Acoustic Range
- When used in combination with our high absorbing ceiling tiles, we can create an ideal acoustic environment, especially for teaching spaces
- High sound attenuation (38 dB; Board)
- Excellent light reflectance (88%)
- ISO 3
- Ideal for classrooms, lecture halls in the education sector

### AMF THERMATEX® Acoustic RL

Characteristic	Detailed information							
Edge details		<b>Board</b> 						
Thickness (mm)		19						
Dimensions (mm)		600 x 600 610 x 610 625 x 625						
System		Exposed demountable - System C						
Weight		<b>5.0 kg/m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354	$\alpha_w = 0.15$ (L) as per EN ISO 11654 - Class E					
		<b>Frequency f (Hz)</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$	0.25	0.20	0.15	0.10	0.15	0.20
		NRC = 0.15 as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,t,w} = 38$ dB as per EN ISO 717-1	CAC = 39 dB as per ASTM E 413-10					
Sound reduction		EN ISO 10140-2 $R_w = 22$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mK as per EN 12667						
Humidity resistance		<b>95% RH</b>						
Indoor air quality								
Cleanability								
Sustainability						<a href="http://www.blauer-enge.de/uz132">www.blauer-enge.de/uz132</a>		

## AMF TOPIQ® Efficient Pro



Berufliche Schule Anckelmannstraße Hamburg, Germany, © Anke Müllerklein

AMF TOPIQ® Efficient Pro is a very light stone wool panel with a modern, smooth surface.

- Excellent sound absorption (1.00  $\alpha_w$ )
- Excellent light reflectance (88%)
- ISO 4
- Ideal for offices, classrooms, learning applications and underground garages

### AMF TOPIQ® Efficient Pro

Characteristic	Detailed information							
	Board	Tegular 24/90		Tegular 15/90				
Edge details Additional edge details on request								
Thickness (mm)	20	20		20				
Dimensions (mm)	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600		600 x 600 625 x 625 1200 x 600				
System	Exposed demountable - System C							
Weight	3.1 kg / m <sup>2</sup>							
Colour	 White							
Sound absorption	EN ISO 354 $\alpha_w = 1.00$ as per EN ISO 11654 - Class A							
	Frequency f (Hz)		125	250	500	1000	2000	4000
	$\alpha_p$		0.45	0.90	1.00	0.95	1.00	1.00
NRC = 0.95 as per ASTM C 423								
Sound attenuation	EN ISO 10848-2 $D_{n,w} = 25$ dB as per EN ISO 717-1		CAC = 25 dB as per ASTM E 413-10					
Sound reduction	EN ISO 10140-2 $R_w = 15$ dB as per EN ISO 717-1							
Fire reaction	Euroclass A1 as per EN 13501-1							
Light reflectance	88%							
Humidity resistance	100% RH							
Clean room	ISO 4 as per EN ISO 14644-1							
Indoor air quality	 A	 E1	 IAC					
Cleanability								
Sustainability	 28.4% (2023)	 EC 1272/2008 Annex II		 <a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>				

## AMF TOPIQ® Prime


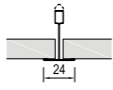
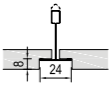
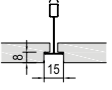














Großküche Zossen, Germany, © Frederic Schweizer

AMF TOPIQ® Prime is a very light stone wool panel with a modern, smooth surface.

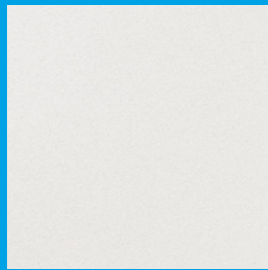
- Excellent sound absorption (0.95  $\alpha_w$ )
- Excellent light reflectance (88%)
- ISO 5
- Ideal for offices, retail, classrooms, learning applications and underground garages

### AMF TOPIQ® Prime

Characteristic	Detailed information							
	Board	Tegular 24/90		Tegular 15/90				
Edge details Additional edge details on request	 							
Thickness (mm)	15	15		15				
Dimensions (mm)	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600		600 x 600 625 x 625 1200 x 600				
System	Exposed demountable - System C							
Weight	2.4 kg / m <sup>2</sup>							
Colour	 White							
Sound absorption	EN ISO 354 $\alpha_w = 0.95$ as per EN ISO 11654 - Class A							
	Frequency f (Hz)		125	250	500	1000	2000	4000
	$\alpha_p$		0.50	0.85	0.95	0.90	1.00	1.00
	NRC = 0.90 as per ASTM C 423							
Sound attenuation	EN ISO 10848-2 $D_{n,w} = 24$ dB as per EN ISO 717-1		CAC = 24 dB as per ASTM E 413-10					
Sound reduction	EN ISO 10140-2 $R_w = 13$ dB as per EN ISO 717-1							
Fire reaction	Euroclass A1 as per EN 13501-1 Class A as per ASTM E 84							
Light reflectance	88%							
Humidity resistance	100% RH							
Clean room	ISO 5 as per EN ISO 14644-1							
Indoor air quality		 A	 E1	 IAC				
Cleanability								
Sustainability	 28.4% (2023)	 BIOSOURCED WOOL EN ISO 16021	 M1 EN ISO 12720:2009 Annex D	 www.blauer-engel.de/uz132				

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## Armstrong PERLA



Armstrong PERLA is a C2C Bronze certified range with a smooth laminated finish providing balanced acoustic performance of both sound absorption and sound attenuation

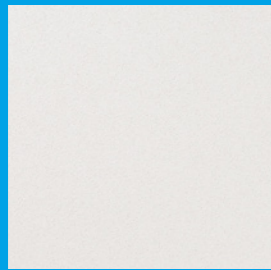
- Good sound absorption (0.65(H)  $\alpha_w$ ) and sound attenuation (36 dB)
- Excellent light reflectance (88%)
- ISO 5
- Ideal for office and learning applications

### Armstrong PERLA

Characteristic	Detailed information								
Edge details		<b>Board</b>	<b>Tegular 24</b>		<b>Tegular 15</b>				
Additional edge details on request									
Thickness (mm)		17	17	17					
Dimensions (mm)		600 x 600	600 x 600	600 x 600					
System		Exposed demountable - System C							
Weight		<b>4.6 kg / m<sup>2</sup></b>							
Colour		 White							
Sound absorption		EN ISO 354 $\alpha_w = 0.65(H)$ as per EN ISO 11654 - Class C							
		Frequency f (Hz)		<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_b$		0.40	0.45	0.60	0.80	0.90	0.90
		NRC = <b>0.70</b> as per ASTM C 423							
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 36 \text{ dB}$ as per EN ISO 717-1		CAC = <b>37 dB</b> as per ASTM E 413-10					
Sound reduction		EN ISO 10140-2 $R_w = 18 \text{ dB}$ as per EN ISO 717-1							
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1							
Light reflectance		<b>88%</b>							
Thermal conductivity		$\lambda = 0.060 \text{ W/mk}$ as per EN 12667							
Air permeability		<b>PM1</b> ( $\leq 30 \text{ m}^3/\text{hm}^2$ ) as per DIN 18177							
Humidity resistance		<b>95% RH</b>							
Clean room		<b>ISO 5</b> as per EN ISO 14644-1							
Indoor air quality									
Cleanability									
Sustainability									
		34.5% (2023)		IC 1272/2008 Annex G			<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>		

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## Armstrong PERLA dB



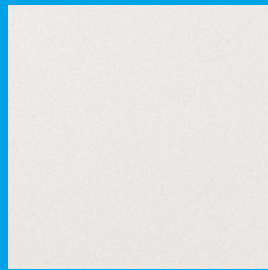
Armstrong PERLA dB is a C2C Bronze certified range with a smooth laminated finish providing enhanced sound attenuation performance for improving the privacy between adjacent spaces

- Good sound absorption (0.60(H)  $\alpha_w$ )
- Excellent light reflectance (88%)
- ISO 5
- Ideal for individual offices

### Armstrong PERLA dB

Characteristic	Detailed information							
Edge details		<b>Board</b>	<b>Tegular 24</b>		<b>Tegular 15/90</b>			
Additional edge details on request								
Thickness (mm)		19	19		19			
Dimensions (mm)		600 x 600	600 x 600		600 x 600			
System		Exposed demountable - System C						
Weight		<b>8.1 kg / m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.60(H)$ as per EN ISO 11654 - Class C						
		<b>Frequency f (Hz)</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$	0.40	0.40	0.55	0.75	0.85	0.95
		NRC = <b>0.65</b> as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,t,w} = 41$ dB as per EN ISO 717-1	CAC = <b>42 dB</b> as per ASTM E 413-10					
Sound reduction		EN ISO 10140-2 $R_w = 21$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.040$ W/mk as per EN 12667						
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance		<b>95% RH</b>						
Clean room		<b>ISO 5</b> as per EN ISO 14644-1						
Indoor air quality		 A+	 E1	 IACG				
Cleanability								
Sustainability		 EN 15804 37.2% (2023)	 IC 127/2008 Annex G			 <a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>		

## Armstrong PERLA OP 0.95



Armstrong PERLA OP 0.95 is a Cradle to Cradle Certified® Bronze range with a smooth laminated finish and excellent Class A sound absorption, making it ideal for open plan areas

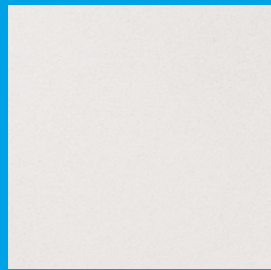
- Excellent sound absorption (0.95  $\alpha_w$ )
- PERLA OP 19mm planks are available, see separate datasheet
- Good light reflectance (85%)
- ISO 5
- Ideal for open spaces (call centres, libraries, cafeterias, etc.)

### Armstrong PERLA OP 0.95

Characteristic	Detailed information						
Edge details		<b>Board</b>	<b>Tegular 24</b>		<b>Tegular 15</b>		
Additional edge details on request							
Thickness (mm)		15	15	15			
Dimensions (mm)		600 x 600 1200 x 600	600 x 600		600 x 600		
System		Exposed demountable – System C					
Weight		<b>2.4 – 2.6 kg/m<sup>2</sup></b>					
Colour		 White					
Sound absorption		EN ISO 354 $\alpha_w = 0.95$ as per EN ISO 11654 – Class A					
		<b>Frequency f (Hz)</b>		<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>
		$\alpha_p$		0.45	0.80	0.95	0.90
		NRC = <b>0.90</b> as per ASTM C 423					
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 25$ dB as per EN ISO 717-1		CAC = <b>25 dB</b> as per ASTM E 413-10			
Sound reduction		EN ISO 10140-2 $R_w = 12$ dB as per EN ISO 717-1					
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84					
Light reflectance		<b>85%</b>					
Thermal conductivity		$\lambda = 0.060$ W/mK as per EN 12667					
Humidity resistance		<b>95% RH</b>					
Clean room		<b>ISO 4</b> as per EN ISO 14644-1					
Indoor air quality		 A+	 E1	 IACG			
Cleanability							
Sustainability		 58.1–63.6% (2023)	 EN 15804	 IC 127/2008 Annex G	 cradle to cradle BRONZE		

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## Armstrong PERLA OP 1.00



Armstrong PERLA OP 1.00 is a C2C Bronze certified range with a smooth laminated finish and offers excellent sound absorption (1.00  $\alpha_w$ ), making it ideal for open plan areas

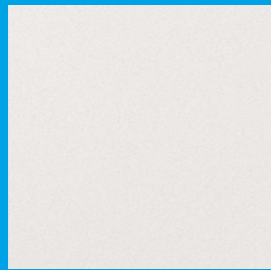
- Excellent sound absorption (1.00  $\alpha_w$ )
- Good light reflectance (85%)
- ISO 4
- Ideal for open spaces (call centres, libraries, cafeterias, etc.)

### Armstrong PERLA OP 1.00

Characteristic	Detailed information							
	Board	Tegular 24		Tegular 15/90				
Edge details								
Additional edge details on request								
Thickness (mm)	20	20	20					
Dimensions (mm)	600 x 600 675 x 675 1200 x 600	600 x 600 675 x 675 1200 x 600	600 x 600 675 x 675 1200 x 600	600 x 600 675 x 675 1200 x 600				
System	Exposed demountable - System C							
Weight	3.1 kg / m <sup>2</sup>							
Colour	 White							
Sound absorption	EN ISO 354 $\alpha_w = 1.00$ as per EN ISO 11654 - Class A							
	Frequency f (Hz)		125	250	500	1000	2000	4000
	$\alpha_p$		0.50	0.85	0.95	0.95	1.00	1.00
	NRC = 0.95 as per ASTM C 423							
Sound attenuation	EN ISO 10848-2 $D_{n,w} = 25$ dB as per EN ISO 717-1		CAC = 25 dB as per ASTM E 413-10					
Sound reduction	EN ISO 10140-2 $R_w = 12$ dB as per EN ISO 717-1							
Fire reaction	Euroclass A2-s1, d0 as per EN 13501-1							
Light reflectance	85%							
Thermal conductivity	$\lambda = 0.040$ W/mK as per EN 12667							
Humidity resistance	95% RH							
Clean room	ISO 4 as per EN ISO 14644-1							
Indoor air quality							A+ E1 IACG	
Cleanability								
Sustainability							73.7% (2023)	

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.


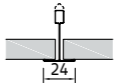


























## Armstrong PERLA OP 19mm



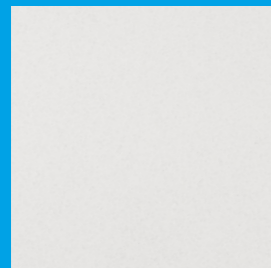
Armstrong PERLA OP 19mm Planks provide a smooth white laminated finish, and with excellent Class A sound absorption and good sound attenuation, they are the ideal solution for both open plan and corridor applications

- Excellent sound absorption (0.90  $\alpha_w$ ) and good sound attenuation (34 dB)
- Good light reflectance (85%)
- ISO 5
- Ideal for open spaces (call centres, libraries, cafeterias, etc.) as well as corridors

### Armstrong PERLA OP 19mm

Characteristic	Detailed information												
Edge details		<b>Board</b>											
Additional edge details on request		<b>SL2</b>											
Thickness (mm)		19											
Dimensions (mm)		1500 x 600 1800 x 600											
System		Exposed demountable - System C Exposed - Bandraaster, demountable - System I.3 Exposed - Corridor, demountable - System F.3											
Weight		<b>5.2 kg / m<sup>2</sup></b>											
Colour		 White											
Sound absorption		EN ISO 354 $\alpha_w = 0.90$ as per EN ISO 11654 - Class A											
		<b>Frequency f (Hz)</b>											
		<table border="1"> <tr> <td>125</td> <td>250</td> <td>500</td> <td>1000</td> <td>2000</td> <td>4000</td> </tr> <tr> <td>0.45</td> <td>0.70</td> <td>0.80</td> <td>0.90</td> <td>1.00</td> <td>1.00</td> </tr> </table>	125	250	500	1000	2000	4000	0.45	0.70	0.80	0.90	1.00
125	250	500	1000	2000	4000								
0.45	0.70	0.80	0.90	1.00	1.00								
		$\alpha_p$ NRC = <b>0.85</b> as per ASTM C 423											
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 34$ dB as per EN ISO 717-1 <b>CAC = 35 dB</b> as per ASTM E 413-10											
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1											
Light reflectance		<b>85%</b>											
Thermal conductivity		$\lambda = 0.060$ W/mK as per EN 12667											
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177											
Humidity resistance		<b>95% RH</b>											
Clean room		<b>ISO 5</b> as per EN ISO 14644-1											
Indoor air quality		 <b>A+</b>  <b>E1</b>  <b>IACG</b>											
Cleanability													
Sustainability		 <b>EN 15804</b>  <b>IC 127/2008 Annex G</b>  <b>M1+</b>  <b>cradle to cradle</b>  <b>www.blauer-engel.de/uz132</b>											

## ANTARIS



ANTARIS is a white, laminated mineral tile and offers Class A sound absorption. ANTARIS provides fire protection and a hygienic ceiling solution

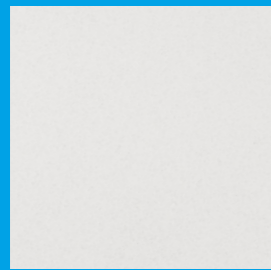
- Excellent sound absorption (0.90  $\alpha_w$ )
- High light reflectance (86%)
- ISO 5
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

**Build on us.**

## ANTARIS

Characteristic	Detailed information							
	Board	Tegular 24/90		Tegular 15/90				
Edge details								
Additional edge details on request								
Thickness (mm)	15	15		15				
Dimensions (mm)	600 x 600 675 x 675 1200 x 600	600 x 600 675 x 675 1200 x 600		600 x 600 675 x 675 1200 x 600				
System	Exposed demountable - System C							
Weight	2.9 kg / m <sup>2</sup>							
Colour	 White							
Sound absorption	EN ISO 354 $\alpha_w = 0.90$ as per EN ISO 11654 - Class A							
	Frequency f (Hz)		125	250	500	1000	2000	4000
	$\alpha_p$		0.50	0.80	0.85	0.85	1.00	1.00
	NRC = 0.90 as per ASTM C 423							
Sound attenuation	EN ISO 10848-2 $D_{n,w} = 28$ dB as per EN ISO 717-1		CAC = 29 dB as per ASTM E 413-10					
Sound reduction	EN ISO 10140-2 $R_w = 13$ dB as per EN ISO 717-1							
Fire reaction	Euroclass A2-s1, d0 as per EN 13501-1 Class A as per ASTM E 84							
Light reflectance	86%							
Thermal conductivity	$\lambda = 0.040$ W/mk as per EN 12667							
Humidity resistance	95% RH							
Clean room	ISO 5 as per EN ISO 14644-1							
Indoor air quality								
Cleanability								
Sustainability								
	48.1-48.2% (2023)							

## ANTARIS C



ANTARIS C tiles are made from a new generation biosoluble mineral wool, clay and starch and offers excellent fire resistance. The smooth, white laminate finish provides good levels of sound absorption for acoustic comfort

- Good sound absorption (0.70  $\alpha_w$ )
- High light reflectance (86%)
- ISO 5
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

## ANTARIS C

Characteristic	Detailed information								
Edge details		<b>Board</b>	<b>Tegular 24</b>		<b>Tegular 15</b>				
Additional edge details on request									
Thickness (mm)		13	13		13				
Dimensions (mm)		600 x 600 1200 x 600	600 x 600		600 x 600				
System		Exposed demountable - System C							
Weight		<b>3.0 kg / m<sup>2</sup></b>							
Colour		 White							
Sound absorption		EN ISO 354 $\alpha_w = 0.70$ as per EN ISO 11654 - Class C							
		Frequency f (Hz)		<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$		0.40	0.55	0.60	0.75	0.95	1.00
NRC = 0.70 as per ASTM C 423									
Sound attenuation		EN ISO 10848-2 $D_{n,t,w} = 30$ dB as per EN ISO 717-1		CAC = 30 dB as per ASTM E 413-10					
Sound reduction		EN ISO 10140-2 $R_w = 18$ dB as per EN ISO 717-1							
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1							
Light reflectance		<b>86%</b>							
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667							
Humidity resistance		<b>90% RH</b>							
Clean room		<b>ISO 5</b> as per EN ISO 14644-1							
Indoor air quality		 A+	 E1	 IACG					
Cleanability									
Sustainability		 45.1% (2023)	 EC 1272/2008 Annex G	 M1	 <a href="http://www.bauer-engel.de/uz132">www.bauer-engel.de/uz132</a>				

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.



## **THE CLASSIC SANDED RANGE**

With a finely textured surface, the sanded Classic mineral ceiling solution provides a perfect balance of light reflectance and acoustic performance to enhance comfort.



*Classic Sanded*

## AMF THERMATEX® Feinstratos



Hedin Bil, Sweden, © Ekwall Photo

AMF THERMATEX® Feinstratos creates an even, uniform ceiling appearance due to its finely textured surface

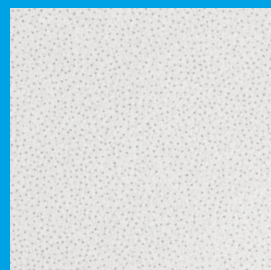
- Good sound attenuation (34 dB)
- Good light reflectance (85%)
- Ideal for retail, meeting rooms, installation rooms or production areas

### AMF THERMATEX® Feinstratos

Characteristic	Detailed information								
Edge details		Board	Tegular 24	Tegular 15	Finesse	SL2	K2C2		
Additional edge details on request									
Thickness (mm)		15	15	15	19	19	15		
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625 1800 x 300 2500 x 300	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600	600 x 600	2000 x 312,5 2500 x 312,5	2000 x 312,5 2500 x 312,5		
System		Exposed demountable - System C Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable - System F.3			Concealed, demountable - System A.2 / A.3	Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2	Semi-concealed planks, non-demountable - System I.3 Semi-concealed planks - Bandraster, non-demountable - System I.1 Semi-concealed planks - Corridor, non-demountable - System F.1		
Weight		3.8 - 5.0 kg / m <sup>2</sup>							
Colour		 White							
Sound absorption		EN ISO 354		$\alpha_w = 0.20$ as per EN ISO 11654 - Class E					
		Frequency f (Hz)		125	250	500	1000	2000	4000
		$\alpha_p$		0.35	0.20	0.15	0.15	0.20	0.20
		NRC = 0.15 as per ASTM C 423							
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 34$ dB (Board, Tegular 24, Tegular 15, K2C2) CAC = 35 dB (Board, Tegular 24, Tegular 15, K2C2)			$D_{n,f,w} = 38$ dB (Finesse, SL2) as per EN ISO 717-1 CAC = 38 dB (Finesse, SL2) as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 $R_w = 21$ dB as per EN ISO 717-1							
Fire reaction		Euroclass A2-s1, d0 as per EN 13501-1							
Light reflectance		85%							
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667							
Humidity resistance		95% RH							
Indoor air quality		 A+	 E1	 IACG					
Cleanability/Sustainability			 20.2-32.7% (2023)	 EN 15804	 IC 1272/2008 Annex G				

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## AMF THERMATEX® Feinstratos Micro



British Council Kyiv, Ukraine © Sergiy Kadulin Photography

AMF THERMATEX® Feinstratos Micro features a finely textured surface and creates an even, uniform ceiling appearance with good sound absorption

- Good sound absorption (0.60  $\alpha_w$ )
- Good to high sound attenuation (34-38 dB)
- Good light reflectance (85%)
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

**Build on us.**

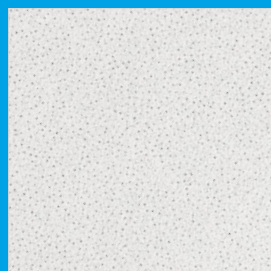
### AMF THERMATEX® Feinstratos Micro

Characteristic	Detailed information											
Edge details		Board	Tegular 24	Tegular 15	Finesse	SL2	K2C2					
Additional edge details on request												
Thickness (mm)		15, 19	15, 19	15	19	19	15					
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600	1500 x 300 1800 x 300 2000 x 312,5 2500 x 300 2500 x 312,5	2000 x 312,5 2500 x 312,5					
System		Exposed demountable - System C			Concealed, demountable - System A.2 / A.3	Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2	Semi-concealed planks, non-demountable - System I.3 Semi-concealed planks - Bandraster, non-demountable - System I.1 Semi-concealed planks - Corridor, non-demountable - System F.1					
Weight		<b>3.9 - 5.0 kg / m<sup>2</sup></b>										
Colour		 White										
Sound absorption		EN ISO 354 $\alpha_w = 0.60$ as per EN ISO 11654 - <b>Class C</b>										
		Frequency f (Hz)					<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$					0.50	0.50	0.55	0.70	0.65	0.50
		NRC = <b>0.60</b> as per ASTM C 423										
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 34$ dB Board, Tegular 24, Tegular 15, K2C2 (15mm) as per EN ISO 717-1 $D_{n,f,w} = 38$ dB Board, Tegular 24, Finesse, SL2 (19mm) as per EN ISO 717-1 CAC = <b>35</b> dB (15mm) CAC = <b>38</b> dB (19mm) as per ASTM E 413-10										
Sound reduction		EN ISO 10140-2 $R_w = 21$ dB as per EN ISO 717-1										
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84										
Light reflectance		<b>85%</b>										
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667										
Humidity resistance		<b>95% RH</b>										
Indoor air quality								<b>A+</b>	<b>E1</b>	<b>IACG</b>		
Cleanability/Sustainability								<b>20.2-32.7%</b> (2023)				

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.



## AMF THERMATEX® Feinstratos Micro Complete



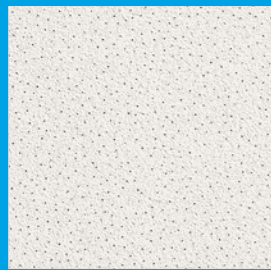
AMF THERMATEX® Feinstratos Micro Complete features a finely textured surface and creates a uniform ceiling appearance with good sound absorption

- Good sound absorption (0.70  $\alpha_w$ )
- Good sound attenuation (34 dB)
- Good light reflectance (85%)
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

### AMF THERMATEX® Feinstratos Micro Complete

Characteristic	Detailed information								
Edge details		Board	Tegular 24		Tegular 15				
Additional edge details on request									
Thickness (mm)		15	15		15				
Dimensions (mm)		600 x 600 610 x 610 625 x 625 1220 x 610 1250 x 625	610 x 610 625 x 625 1220 x 610 1250 x 625		610 x 610 625 x 625 1220 x 610 1250 x 625				
System		Exposed demountable - System C							
Weight		4.0 kg / m <sup>2</sup>							
Colour		 White							
Sound absorption		EN ISO 354 $\alpha_w = 0.70$ as per EN ISO 11654 - Class C							
		Frequency f (Hz)		125	250	500	1000	2000	4000
		$\alpha_p$		0.45	0.65	0.70	0.80	0.75	0.50
		NRC = 0.70 as per ASTM C 423							
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 34$ dB as per EN ISO 717-1		CAC = 35 dB as per ASTM E 413-10					
Sound reduction		EN ISO 10140-2 $R_w = 21$ dB as per EN ISO 717-1							
Fire reaction		Euroclass A2-s1, d0 as per EN 13501-1							
Light reflectance		85%							
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667							
Humidity resistance		95% RH							
Indoor air quality		 A+	 E1	 IACG					
Cleanability									
Sustainability		 40% (2023)	 EN 15804	 IC 127/2008 Annex D	 <a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>				

## Armstrong DUNE SUPREME



Armstrong DUNE SUPREME features a microperforated finely sanded surface combining good levels of sound absorption and sound attenuation, making it an ideal choice for many spaces

- Good sound absorption (0.55  $\alpha_w$ ) and sound attenuation (34dB)
- Good light reflectance (85%)
- Ideal for office and learning applications

**Build on us.**

### Armstrong DUNE SUPREME

Characteristic	Detailed information								
Edge details		Board	Tegular 24		Tegular 15				
Additional edge details on request									
Thickness (mm)		15	15		15				
Dimensions (mm)		600 x 600 1200 x 600	600 x 600 1200 x 600		600 x 600 1200 x 600				
System		Exposed demountable - System C							
Weight		3.6 - 4.0 kg / m <sup>2</sup>							
Colour		 White							
Sound absorption		EN ISO 354 $\alpha_w = 0.55$ as per EN ISO 11654 - Class D							
		Frequency f (Hz)		125	250	500	1000	2000	4000
		$\alpha_p$		0.40	0.45	0.55	0.60	0.50	0.45
NRC = 0.50 as per ASTM C 423									
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 34$ dB as per EN ISO 717-1		CAC = 35 dB as per ASTM E 413-10					
Sound reduction		EN ISO 10140-2 $R_w = 17$ dB as per EN ISO 717-1							
Fire reaction		Euroclass A2-s1, d0 as per EN 13501-1 Class A as per ASTM E 84							
Light reflectance		85%							
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667							
Humidity resistance		95 - 99% RH							
Indoor air quality		 A+	 E1	 IACG					
Cleanability									
Sustainability		 20.2-23.9% (2023)							



# Classic Fissured/ Perforated

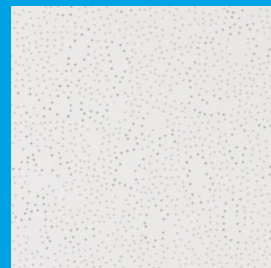
## THE CLASSIC FISSURED/ PERFORATED RANGE

Choose a fissured surface from the Classic mineral range to enjoy its unique combination of superior sound absorption and sound attenuation for improved intelligibility.



© Sergiy Kadulin Photography

## STAR 15mm



NanoelektronikZentrumDresden, Germany, © Baldauf & Baldauf Fotografie

STAR 15mm features fine, uneven perforations with a smooth surface finish, and meets the needs for a modern, elegant design visual

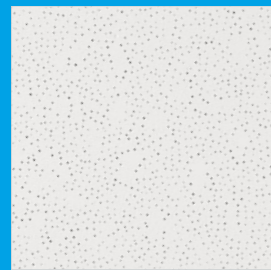
- Good sound absorption (0.60  $\alpha_w$ )
- Good sound attenuation (34 dB)
- Excellent light reflectance (88%)
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

## STAR 15mm

Characteristic	Detailed information							
Edge details		Board	Tegular 24	Tegular 15	K2C2			
Additional edge details on request								
Thickness (mm)		15	15	15	15			
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625 2500 x 300	600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600	2000 x 312,5 2500 x 312,5			
Additional sizes on request								
System		Exposed demountable - System C Exposed - Bandraaster, demountable - System I.3 Exposed - Corridor, demountable - System F.3			Semi-concealed planks, non-demountable - System I.3			
Weight		<b>3.6 - 3.8 kg / m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.60$ as per EN ISO 11654 - Class C Frequency f (Hz)						
			125	250	500	1000	2000	4000
		$\alpha_p$	0.45	0.50	0.55	0.70	0.65	0.50
		NRC = 0.60 as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 34$ dB as per EN ISO 717-1			CAC = 35 dB as per ASTM E 413-10			
Sound reduction		EN ISO 10140-2 $R_w = 21$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667						
Humidity resistance		<b>95% RH</b>						
Indoor air quality								
		A+	E1	IACG				
Cleanability								
Sustainability								
		22.5-25.4% (2023)						

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## STAR 19mm



UA Alpha Bank, Kiyv, ©Sergiy Kadulin Photography

STAR 19mm features fine, uneven perforations with a smooth surface finish, and meets the needs of a modern, elegant design visual

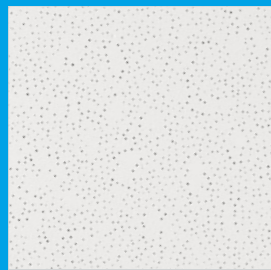
- Good sound absorption (0.60  $\alpha_w$ )
- High sound attenuation (38 dB)
- Excellent light reflectance (88%)
- Ideal for retail, offices and installations rooms

## STAR 19mm

Characteristic	Detailed information							
Edge details		Tegular	SL2	K4C4				
Additional edge details on request								
Thickness (mm)		19	19	19				
Dimensions (mm)		600 x 600	1800 x 300 2000 x 312,5 2500 x 300 2500 x 312,5	625 x 625				
System		Exposed demountable - System C	Semi-concealed planks, demountable - System I.3 Semi-concealed planks - Bandraster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2			Concealed, non-demountable - System A.1		
Additional sizes on request								
Weight		<b>5.0 kg / m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354	$\alpha_w = 0.60$ as per EN ISO 11654 - Class C					
		Frequency f (Hz)	125	250	500	1000	2000	4000
		$\alpha_p$	0.40	0.45	0.55	0.65	0.60	0.45
		NRC = 0.55 as per ASTM C 423						
Sound attenuation		EN ISO 10848-2	$D_{n,f,w} = 38$ dB as per EN ISO 717-1				CAC = 38 dB as per ASTM E 413-10	
Sound reduction		EN ISO 10140-2	$R_w = 21$ dB as per EN ISO 717-1					
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667						
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance		<b>95% RH</b>						
Indoor air quality								
Cleanability								
Sustainability								<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>
		34.2% (2023)	EN 15804	EC 1272/2008 Annex G				

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## STAR Complete



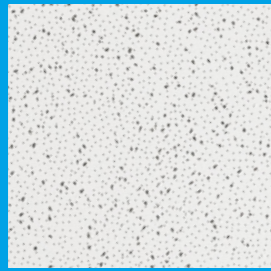
With its perforated surface, STAR Complete offers an elegant, modern solution for spaces that require good sound absorption

- Good sound absorption (0.70  $\alpha_w$ )
- Good sound attenuation (34 dB)
- Excellent light reflectance (88%)
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

### STAR Complete

Characteristic	Detailed information							
Edge details		Board	Tegular 24		Tegular 15			
Additional edge details on request								
Thickness (mm)		15	15		15			
Dimensions (mm)		600 x 600 625 x 625 1200 x 600	600 x 600 625 x 625 1200 x 600		600 x 600 1200 x 600			
Additional sizes on request								
System		Exposed demountable - System C						
Weight		<b>4.0 kg / m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.70$ as per EN ISO 11654 - Class C						
		Frequency f (Hz)	125	250	500	1000	2000	4000
		$\alpha_p$	0.50	0.65	0.70	0.80	0.75	0.50
		NRC = 0.70 as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 34$ dB as per EN ISO 717-1		CAC = 35 dB as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 $R_w = 21$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance		<b>88%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667						
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance		<b>95% RH</b>						
Indoor air quality		 A+	 E1	 IACG				
Cleanability								
Sustainability		 43%	 EN 15804	 EC 1272/2008 Annex G				
		<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>						

## AMF THERMATEX® Mercure



AMF THERMATEX® Mercure is a white ceiling panel featuring fine perforations, creating a modern, high-quality surface finish

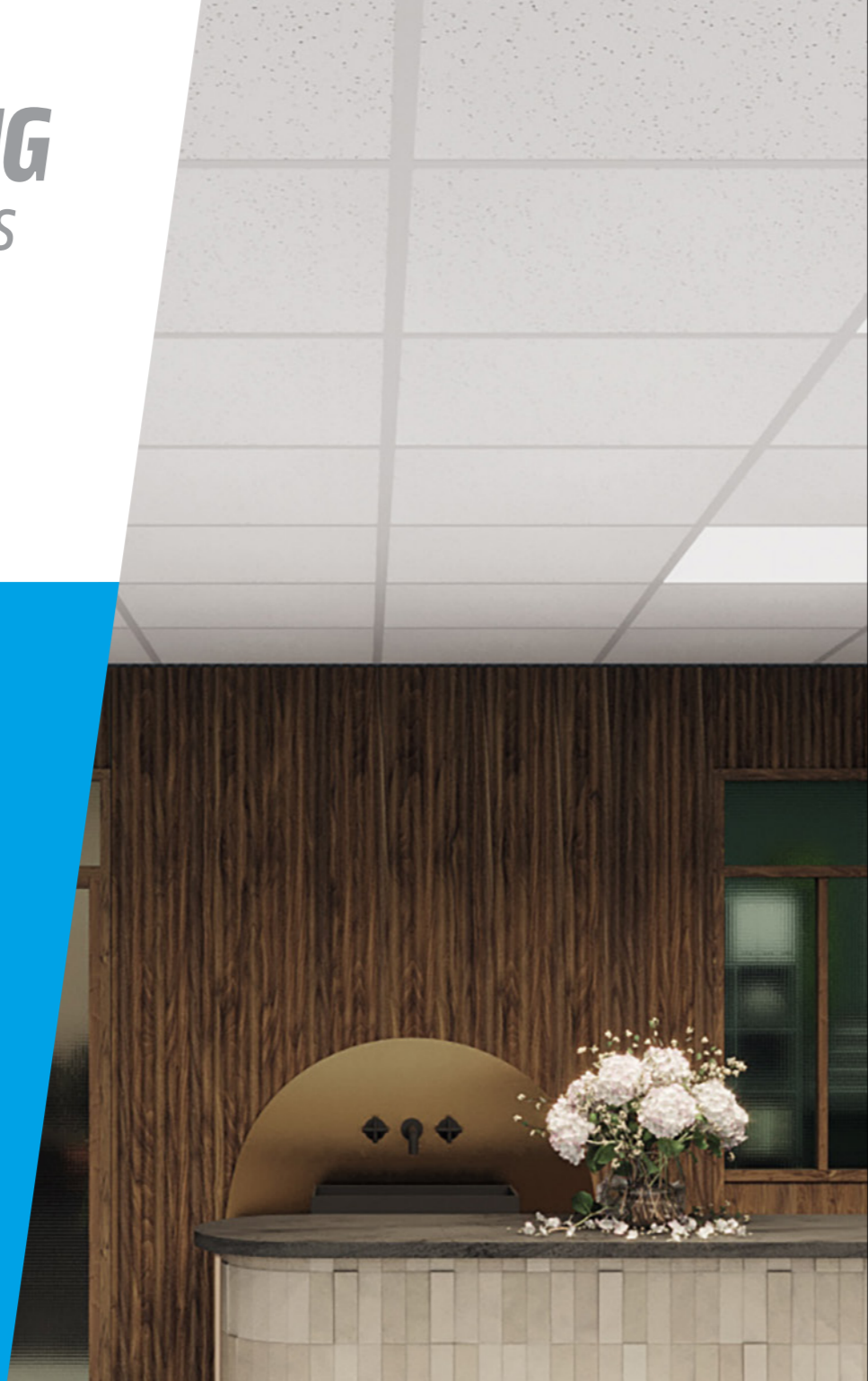
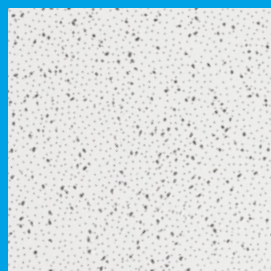
- Good sound absorption (0.60  $\alpha_w$ )
- Good light reflectance (85%)
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

**Build on us.**

### AMF THERMATEX® Mercure

Characteristic	Detailed information							
Edge details		Board	Tegular 24		Tegular 15			
Additional edge details on request								
Thickness (mm)		15	15		15			
Dimensions (mm)		600 x 600 1200 x 600	600 x 600		600 x 600			
System		Exposed demountable - System C						
Weight		<b>3.6 - 3.8 kg / m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.60$ as per EN ISO 11654 - Class C						
		Frequency f (Hz)	125	250	500	1000	2000	4000
		$\alpha_p$	0.45	0.40	0.50	0.70	0.70	0.65
NRC = 0.60 as per ASTM C 423								
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 32$ dB as per EN ISO 717-1		CAC = 32 dB as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 $R_w = 21$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance		<b>85%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667						
Humidity resistance		<b>95% RH</b>						
Indoor air quality		 A+	 E1	 IACG				
Cleanability								
Sustainability		 EN ISO 14021 22.5-25.4% (2023)	 EN 15804	 BIOSOLUBLE WOOL EC 127/2008 Annex G				

## AMF THERMATEX® Mercure Complete



AMF THERMATEX® Mercure is a white ceiling panel featuring fine perforations, creating a modern, high-quality surface finish

- Good sound absorption (0.60  $\alpha_w$ )
- Good light reflectance (85%)
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

### AMF THERMATEX® Mercure Complete

Characteristic	Detailed information							
Edge details		Board	Tegular 24		Tegular 15			
Additional edge details on request								
Thickness (mm)		15	19-15		15			
Dimensions (mm)		610 x 610 625 x 625 1220 x 610 1250 x 625	600 x 600 (19mm) 610 x 610 (15 mm)		610 x 610 625 x 625			
System		Exposed demountable – System C						
Weight		<b>4.0 kg / m<sup>2</sup></b> (15 mm) <b>5.0 kg / m<sup>2</sup></b> (19 mm)						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.70$ (15 mm) <b>0.75</b> (19 mm) as per EN ISO 11654 – <b>Class C</b>						
		<b>Frequency f (Hz)</b>						
			<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
		$\alpha_p$ 15 mm	0.50	0.60	0.60	0.75	0.90	0.75
$\alpha_p$ 19 mm	0.40	0.50	0.70	0.90	0.90	0.75		
		NRC = <b>0.75</b> as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 34$ dB (15 mm) as per EN ISO 717-1 $D_{n,f,w} = 38$ dB (19 mm) as per EN ISO 717-1		CAC = <b>36 dB</b> as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 Rw = <b>21 dB</b> as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance		<b>85%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667						
Humidity resistance		<b>95% RH</b>						
Indoor air quality		 A+	 E1					
Cleanability								
Sustainability		 43.4%	 EN 15804	 EC 1272/2008 Annex G		<a href="http://www.blauer-engel.de/uz132">www.blauer-engel.de/uz132</a>		

## AMF THERMATEX® Feinfresko



AMF THERMATEX® Feinfresko features an uneven textured finish and offers good sound absorption for better acoustic comfort

- Good sound absorption (0.60 (H)  $\alpha_w$ )
- High sound attenuation (32 dB)
- Ideal for retail, offices and meeting rooms, installation rooms or production areas

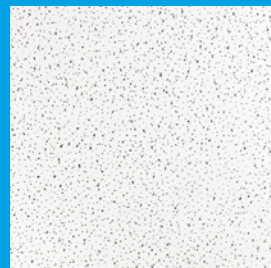
**Build on us.**

### AMF THERMATEX® Feinfresko

Characteristic	Detailed information							
Edge details		Board	Tegular 24		Tegular 15			
Additional edge details on request								
Thickness (mm)		15	15		15			
Dimensions (mm)		600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 600 625 x 625		625 x 625			
System		Exposed demountable - System C						
Weight		<b>3.6 - 3.8 kg / m<sup>2</sup></b>						
Colour		 White						
Sound absorption		EN ISO 354 $\alpha_w = 0.60$ (H) as per EN ISO 11654 - Class C						
		Frequency f (Hz)	125	250	500	1000	2000	4000
		$\alpha_p$	0.45	0.40	0.50	0.70	0.80	0.75
		NRC = 0.60 as per ASTM C 423						
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 32$ dB (15 mm) as per EN ISO 717-1		CAC = 32 dB as per ASTM E 413-10				
Sound reduction		EN ISO 10140-2 $R_w = 21$ dB as per EN ISO 717-1						
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1						
Light reflectance		<b>83%</b>						
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667						
Air permeability		<b>PM1</b> ( $\leq 30$ m <sup>3</sup> /hm <sup>2</sup> ) as per DIN 18177						
Humidity resistance		<b>90% RH</b>						
Indoor air quality								
Cleanability								
Sustainability								
		22.5-25.4% (2023)						

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## Armstrong FINE FISSURED



LUCRON Seinerka Business Centre, Slovakia (© BoysPlayNice)

Armstrong FINE FISSURED offers a non-directional surface and provides a cost-effective solution for Class C sound absorption

- Good sound absorption (0.60(H)  $\alpha_w$ )
- Good light reflectance (85%)
- Ideal for meeting rooms, circulation and waiting areas

**Build on us.**

### Armstrong FINE FISSURED

Characteristic	Detailed information								
Edge details		Board	Tegular 24		Tegular 15				
Additional edge details on request									
Thickness (mm)		15 - 19	15		15				
Dimensions (mm)		600 x 600 1200 x 600	600 x 600		600 x 600				
System		Exposed demountable - System C							
Weight		<b>3.8 - 5.0 kg / m<sup>2</sup></b>							
Colour & design		 White							
Sound absorption		EN ISO 354 $\alpha_w = 0.60(H)$ as per EN ISO 11654 - Class C							
		Frequency f (Hz)		125	250	500	1000	2000	4000
		$\alpha_p$		0.40	0.40	0.55	0.75	0.75	0.75
NRC = 0.60 as per ASTM C 423									
Sound attenuation		EN ISO 10848-2 $D_{n,f,w} = 32 \text{ dB}$ (15 mm) as per EN ISO 717-1 $D_{n,f,w} = 38 \text{ dB}$ (19 mm) as per EN ISO 717-1		CAC = 32 dB (15 mm) as per ASTM E 413-10 CAC = 38 dB (19 mm) as per ASTM E 413-10					
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1							
Light reflectance		<b>85%</b>							
Thermal conductivity		$\lambda = 0.060 \text{ W/mK}$ as per EN 12667							
Humidity resistance		<b>90%</b>							
Indoor air quality		 A+	 E1	 IACG					
Cleanability									
Sustainability		 22.5-34.2% (2023)	 EN 15804	 IC1272/2008 Annex G					

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

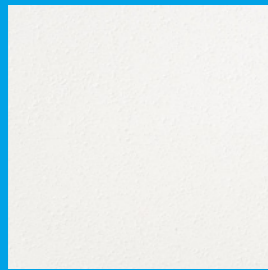
## THE CLASSIC PLAIN RANGE

Our classic mineral range is available in plain white, offering more reflected daylight and high levels of sound attenuation for excellent room to room privacy.



*Classic PLAIN*

## PLAIN



PLAIN offers a smooth white surface that meets today's trends for cleaner finishes, whilst maximising light reflectance

- Good sound attenuation (34 dB)
- Excellent light reflectance (88%)
- Ideal for retail environments

## Build on us.

## PLAIN

Characteristic	Detailed information								
Edge details		<b>Board</b>	<b>Tegular 24</b>		<b>Tegular 15</b>				
Additional edge details on request									
Thickness (mm)		15	15	15					
Dimensions (mm)		600 x 600 1200 x 600	600 x 600 1200 x 600	600 x 600 1200 x 600					
System		Exposed demountable - System C							
Weight		<b>3.6 - 3.8 kg / m<sup>2</sup></b>							
Colour		 White							
Sound absorption		EN ISO 354 $\alpha_w = 0.20$ (L) as per EN ISO 11654 - Class E							
		Frequency f (Hz)		125	250	500	1000	2000	4000
		$\alpha_p$		0.30	0.25	0.15	0.15	0.25	0.30
NRC = 0.20 as per ASTM C 423									
Sound attenuation		EN ISO 10848-2 $D_{n,w} = 34$ dB as per EN ISO 717-1		CAC = 35 dB as per ASTM E 413-10					
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84							
Light reflectance		<b>88%</b>							
Thermal conductivity		$\lambda = 0.060$ W/mk as per EN 12667							
Humidity resistance		<b>95% RH</b>							
Clean room		<b>ISO 4</b> as per EN ISO 14644-1							
Indoor air quality		 A+	 E1	 IACG					
Cleanability									
Sustainability		 EN 15804	 EC 1272/2008 Annex G						
		24.2-25.4% (2023)							

Product availability may vary from country to country. Please contact your local sales representative. For further information and legal notice, please visit our website.

## THE FIRE PERFORMANCE RANGE

Fire Performance is an important consideration for every ceiling system - no matter how simple or complex.

Our ceiling tiles are engineered to meet the most stringent industry standards. Select from a broad range of looks and acoustic options to meet your design and fire reaction requirements.

### AMF System UNO 30

The greatest advantage of the UNO 30 system is the fire protection from above and below.

If a fire attacks from above, i.e. from the ceiling cavity, life-saving escape routes remain free of smoke and heat. If the fire attacks from below, the installations in the ceiling cavity are protected.

System Uno planks installed on a supporting perimeter construction can span up to 2.8m without suspension hangers, and are quick and easy to install.

As a design option, there is a choice between METAL or classic MINERAL design.



*Fire Performance*

# Acoustic Technical Glossary

## Weighted sound absorption coefficient, $a_w$

A single-number rating for random incidence sound absorption coefficients calculated by reference to EN ISO 11654.

With this method measured values obtained in accordance with EN ISO 354, are converted into octave bands at 250, 500, 1000, 2000 and 4000 Hz and are plotted onto a graph.

A standard reference curve is then shifted towards the measured values in steps of 0.05 until a “best fit” is obtained. The derived value of  $a_w$  will vary between 0.00 and 1.00 but is only expressed in multiples of 0.05, e.g.  $a_w = 0.65$ .

## Weighted suspended ceiling normalised level difference, $D_{ncw}$

A single-number rating of the laboratory measurement of room-to-room (horizontal) airborne sound insulation of a suspended ceiling above adjacent rooms sharing a common ceiling plenum.

It is determined in accordance with EN ISO 717-1 from measurements made in accordance with EN 20140-9.

Note: EN 20149-9 has now been withdrawn and superseded by EN ISO 10848-2 (see  $D_{ntw}$ ), although  $D_{ncw}$  test results still continue to be valid.

## Weighted suspended ceiling normalised flanking level difference, $D_{ntw}$

A single-number rating of the laboratory measurement of room-to-room (horizontal) airborne flanking sound transmission of a suspended ceiling above adjacent rooms sharing a common ceiling plenum.

It is determined in accordance with EN ISO 717-1 from measurements made in accordance with EN ISO 10848-2. This has now superseded EN 20149-9. (see  $D_{ncw}$ ).

## Shape indicator

With reference to EN ISO 11654, the calculated value of  $w$  may be qualified by one or max. two letters (in brackets) to indicate if the product has excess sound absorption at low (L), medium (M) or high (H) frequencies.

## Weighted sound reduction index, $R_w$

A single-number rating of the laboratory measurement of (vertical) airborne sound reduction of a suspended ceiling. It is determined by reference to EN ISO 717-1 from measurements of sound reduction index made in accordance with EN ISO 140-3.

## Sound absorption class

With reference to EN ISO 11654, the calculated value of  $w$  may additionally be allocated into one of six descriptive classes in accordance with the following table:

Sound Absorption Class	$a_w$
A	0.90; 0.95; 1.00
B	0.80; 0.85
C	0.60; 0.65; 0.70; 0.75
D	0.30; 0.35; 0.40; 0.45; 0.50; 0.55
E	0.15; 0.20; 0.25
Not Classified	0.00; 0.05; 0.10

## Rain noise sound intensity level, $L_r$

The laboratory measurement of the sound intensity in a room below a roof construction when subjected to rainfall. It is determined by reference to EN ISO 140-18:2006 – Laboratory measurement of sound generated by rainfall on building elements. The roof’s performance can be tested with or without a suspended ceiling beneath.

The intensity of the rainfall tested can be selected from the options given in the standard. A combined A-weighted single-number (LIA) can also be determined. Unlike  $D_{ntw}$  and  $R_w$  data, where the higher the value the better the insulation provided, the lower the intensity value (weighted LIA) the better the insulation performance of the ceiling and roof combination.

## Noise reduction coefficient, NRC

A single-number descriptor of random incidence sound absorption coefficients. Defined in ASTM C423 as the arithmetical average, to the nearest multiple of 0.05, of the measured sound absorption coefficients for the four one-third octave band centre frequencies of 250, 500, 1,000 and 2,000 Hz.

## Equivalent absorption area (EAA)

The equivalent absorption is a measure of the total sound absorption by discrete objects (canopies, screens, furniture etc) when installed in an architectural space.

Because these types of absorbers have more than one surface and may be irregular in form, it is not meaningful to assign sound absorption coefficients to them.

Hence the Equivalent Absorption Area per unit (measured in Sabines) is preferred to characterise the absorption provided by an individual ‘space absorber’.

## Sound attenuation

A term used in relation to the horizontal transmission of sound through a suspended ceiling above adjacent rooms sharing a common ceiling plenum.

## Sound reduction

A term used in relation to the vertical transmission of sound through a suspended ceiling.



# Definition of Technical Performance Icons



## Sound Absorption

A single-number rating for random incidence sound absorption coefficients as calculated by reference to EN ISO 11654 ( $\alpha_w$ ) or to ASTM C 423-01 (NRC).



## Sound Absorption Class

A classification for sound absorption (A – E) based upon the sound absorption  $\alpha_w$  value.



## Sound Reduction

A single-number rating for airborne sound transmission (single pass) as calculated by reference to EN ISO 717-1.



## Dimensions

Indicates the sizes available for the product of reference.



## Recycled Content

The recycled content of the product, as calculated in accordance with ISO 14021.



## VOC

The VOC emission performance in accordance with the French labelling requirements.



## Formaldehyde (E1)

Formaldehyde emission level (E1 = lowest test result possible).



## EPD (Environmental Product Declaration)

Independently verified and registered documents that communicate transparent and comparable information about the life-cycle environmental impact of products. Knauf Ceiling Solutions EPDs have been third party certified by IBU (Institut Bauen und Umwelt e.V. (IBU) as conforming to the requirements of ISO 14025.



## Cradle To Cradle CERTIFIED®

Products with this icon are Cradle-to-Cradle CERTIFIED®, providing a transparent mechanism to compare the sustainability performance of products, showing that they are designed for recycling and helping to protect and to sustain our environment for future generations by keeping resources in the economy for a longer period of time.



## Sound Attenuation

A single-number rating for flanking sound transmission between adjacent rooms, as calculated by reference to EN ISO 717-1.



## Fire Reaction

Reaction to fire classification in accordance with EN 13501-1 expressed as Euroclass (A1 – F).



## Light Reflectance

Light reflection is the proportion of incident light that is reflected back off the product.



## Weight

Weight per unit area of the product (kg/m<sup>2</sup>)



## Humidity Resistance

Maximum relative humidity conditions for installation and lifetime of ceiling.



## Antimicrobial

Antimicrobial finish on standard mineral tiles and available as a custom option on metal products with this icon.



## Air Permeability

Tested in accordance with DIN 18177, the air permeability rating indicates the cubic metres of air leakage per hour per square meter.



## Resistance to Disinfectant

Can be cleaned with specific disinfectants commonly used in healthcare premises. Disinfectants should be used as a spray on wipes.



## Systems

Indicates the suspension systems compatible with the product of reference.



## Colours

Custom colours available for products with this icon.



## Scratch Resistance

Solutions with this icon offer a superior level of surface scratch resistance.



## Product Handling & Durability

Solutions with enhanced durability for improved handling and resistance damage.



## Thermal Conductivity

Tested in accordance with EN 12667, the thermal conductivity rating measures the rate of heat flow through a material.



## Thickness

Indicates the thickness for the ceiling tile of reference.



## Steam Cleaning

The apparatus used should be a cleaner that generates steam under pressure (8 bar and 175°C).



## Edge Details

Indicates the different edge details available for the product of reference.



## Clean Room

Healthcare, pharmaceuticals, and the food processing industry expect the highest levels of air cleanliness. We designed our clean room metal ceiling tiles to meet these requirements for labs, data centres, and clean room assemblies.

## Cleaning and Disinfection

The frequency and cleaning method of a ceiling varies from one application to another. All products can at least be cleaned with a dry cloth or vacuum cleaner.



## Dry Cleaning

For standard cleaning of dust, loose dirt or deposit, a soft brush, a clean, dry, soft white cloth, a normal vacuum cleaner with a soft brush or focus compressed air can be used.



## Moist Cleaning

For more intensive cleaning, the surfaces can be damp cleaned. This should be carried out with a wrung-out soft cloth or sponge. After cleaning, the surfaces of the tile should be dried with a soft cloth.



## Cleaning and Disinfection

Wet cleaning should be carried out with lukewarm water (up to 40°C), using a sponge and mild cleaning agent (with a pH value between 7 and 9), and using medium pressure. After cleaning, the surface should be dried with a soft cloth.



## High Pressure

Can be cleaned using a high pressure water spray. After cleaning, the surface should be dried.



## Scrubbable

Scrubbable with water containing mild soap or diluted detergent.

## CE Marking

In Europe, the Construction Products Regulations (305/2011/EU) defines essential requirements for products (and projects) such that they are safe and fit for their intended use. Harmonized Product Standards respond to these essential requirements and set out what tests must be conducted and how the performance must be communicated. For suspended ceilings the applicable product standard is EN 13964 Suspended Ceilings – Requirements & Test Methods.

The essential requirements identified for suspended ceiling membranes (tiles & baffles) include:

- Reaction to Fire (mandatory)
- Formaldehyde Emissions (mandatory)
- Sound Absorption
- Flexural Tensile Strength / Durability
- Thermal conductivity

It is mandatory to CE Mark products within the scope of EN 13964 and provide a Declaration of Performance in order to place the product on the market. All Knauf Ceiling Solutions Declarations of Performance can be found on Knauf Ceiling Solutions website.



## Indoor Air Comfort Gold

Higher level "Indoor Air Comfort GOLD – Certified Product" shows additional compliance of product emissions with the criteria of many of the voluntary specifications issued by most relevant ecolabels and similar specifications in the EU an requirements for sustainable building certifications. Certified products are those with the best-in-class low emissions, thus good for indoor air quality.



## Indoor Air Quality

The Eurofins Indoor Air Comfort (Gold) certification ensures that all product-related health criteria on product emissions are sufficiently fulfilled. It is a sign confirming the quality claim of the manufacturer and its contribution to a healthy indoor climate. Mainly VOCs emissions can pose a serious risk, especially to children. Limiting VOC from indoor building products is the subject of many national regulations and voluntary quality labels. A lot of these regulations are covered by IAC(G).



## M1

The Finnish emission label for building products is one of the leading test labels in the Scandinavian region. M1 is the best category and stands for "low emission". The M1 classification sets requirements for the emission of VOC, formaldehyde, ammonia and other substances.



## Indoor Air Comfort

Higher level "Indoor Air Comfort – Certified Product" shows additional compliance of product emissions with the criteria of many of the voluntary specifications issued by most relevant ecolabels and similar specifications in the EU an requirements for sustainable building certifications. Certified products are those with the best-in-class low emissions, thus good for indoor air quality.



## Biosoluble Wool

The mineral wool used in our products is biosoluble and therefore not a health hazard. The two quality labels RAL and EUCEB ensure the biosolubility of the wool through regular testing.



## ISO 9001 & ISO 14001

This icon demonstrates Knauf Ceiling Solutions ability to consistently provide products and services that meet customer and regulatory quality management system requirements (ISO 9001) and environmental management system requirements (ISO 14001).



## BLUE ANGEL

The Blue Angel ecolabel is awarded by an independent Jury to environmentally friendly products. Each label specifies that the product meets a list of criteria considering environmental and health-related aspects.

[www.blauer-engel.de/uz132](http://www.blauer-engel.de/uz132)

***Build on us.***

**Knauf Ceiling Solutions GmbH & Co. KG**

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VAT No. pursuant to § 27a of the German VAT Act  
(Umsatzsteuergesetz): DE131249009  
Managing Director: Karl Wenig