



### Experience More Innovation

### **Contents**

Experience More Innovation	4
Production Network	6
Acoustical Solutions for every Space	8
Fire Performance	9
Healthy Interiors	10
Visual Comfort	11
Office	12
Education	14
Retail	16
Leisure & Hospitality	18
Healthcare & Hygiene	20
Transport	22
Design	24
MINERAL Baffle Element	26
MINERAL Baffle Element Arc	28
MINERAL Baffle Line L/N	30
MINERAL Sonic Element	32
MINERAL Sonic Line	34
MINERAL Sonic Line Arc	36
MINERAL Wallcoustic Element	38
MINERAL Wallcoustic Line	40
FABRIC Wallcoustic Line	42

VARIOLINE Range	44
VARIOLINE Motif	46
VARIOLINE Metal	48
VARIOLINE Wood	50
VARIOLINE Symetra	52
VARIOLINE Colour	54
Seamless Acoustic	56
ELEGANZA	58
ADAGIO Range	60
ADAGIO Acoustic*	62
ADAGIO Alpha <sup>+</sup>	64
ADAGIO dB⁺	66
ADAGIO HD+ 19mm	68
ADAGIO HD⁺ 30mm	70
ADAGIO HD⁺ 35mm	72
Healthcare & Hygiene	74
MEDIGUARD Alpha	76
MEDIGUARD Acoustic	78
MEDIGUARD Plain	80
HYGENA Aquatec	82
HYGENA Alpha	84
HYGENA Acoustic 15mm	86
HYGENA Plain	88
HYGENA TOPIQ® Alpha 15	90
HYGENA TOPIQ® Alpha 20	92
AMF THERMATEX® Aquatec	94
NEWTONE	96

Smooth White Acoustic	98
AMF THERMATEX® Acoustic	100
AMF THERMATEX® Alpha	102
AMF THERMATEX® Alpha Colour	104
AMF THERMATEX® Alpha HD 19mm	106
AMF THERMATEX® Alpha HD 30mm	108
AMF THERMATEX® Alpha HD 35mm	110
AMF THERMATEX® Alpha One	112
AMF THERMATEX® dB Acoustic	114
AMF THERMATEX® Thermofon	116
TOPIQ® Alpha 15	118
TOPIQ® Alpha 20	120
ANTARIS	122
Classic Sanded	124
AMF THERMATEX® Feinstratos	126
AMF THERMATEX® Feinstratos Micro	128
Classic Fissured / Perforated	130
STAR 15mm	132
AMF THERMATEX® Mercure	134
AMF THERMATEX® Freinfresko	136

Fire Performance	138
Acoustic Technical Glossary	140
Definitions of Technical Performace Icons	142



# **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

08 Illange (FR) Mineral



**APAC** 

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

10 Pune (IN) Grid



# **Acoustical Solutions** for Every Space

#### Meet all expections 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

In case of a fire in the ceiling void (incidentally,

the most common fire source) the underlying

Fire resistant certificates such as the German

abP-certificates are available on request.

Uno fire rated ceiling for 30 minutes.

escape routes are protected by AMF THERMATEX®

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.



### **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.

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

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

A well-design ceiling with high light reflectance:

- · Improves space illumination
- Reduces electrical light output and lowers maintenance costs
- Reduces cooling load

High light reflectance ceilings 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.





#### 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.

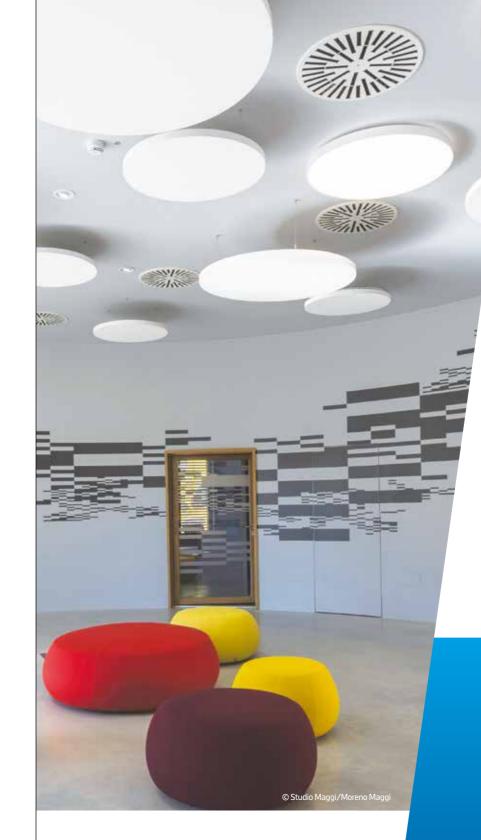
### **EDUCATION**

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.



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.



# 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.

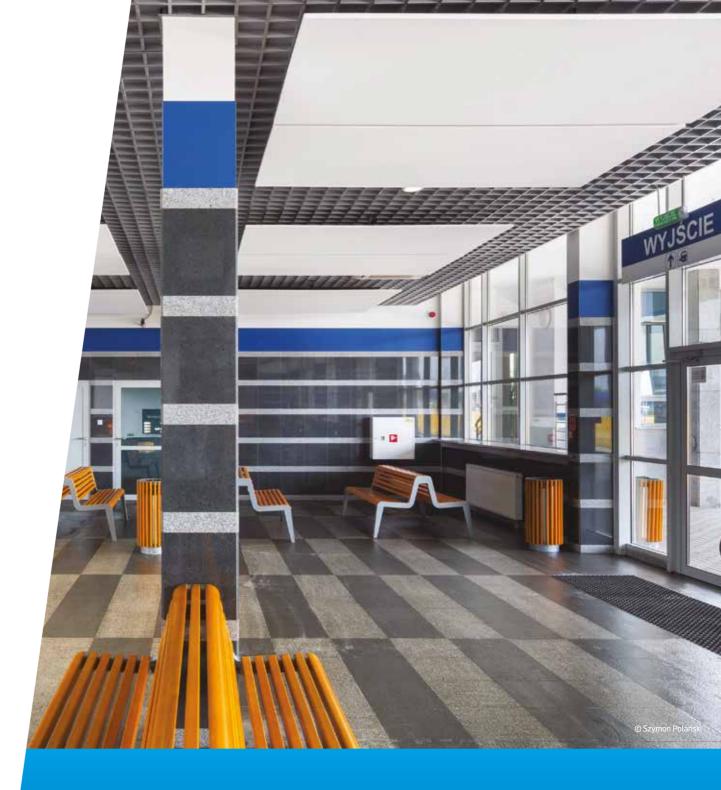
### **TRANSPORT**

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.



# Architecture that Moves People



Creativity, Design and Diversity

### **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.





Vertical Baffle Systems

MINERAL

Baffle Element

Individual / Grouped





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

26

**Build on us.** 

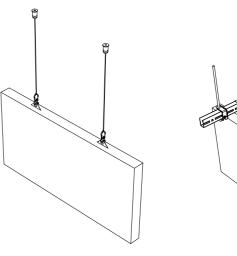
### MINERAL Baffle Element

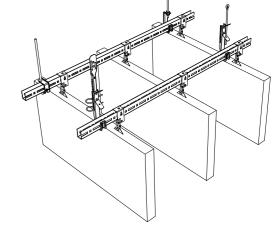
Vertical Baffle System

dividual / Grouped



Characteristic		Detailed in	nformation								
Thickness (mm)	<u>↓</u>	39							Additional o	dimensions av	ailable on reque
Dimensions (mm)	<b> ←→ </b>	1200 × 300 1200 × 400			1800 × 1800 ×						
System		Hanging Wi U-Profile gr T-Grid grou	ouping option	1							
Weight	Q kg \		): <b>3.8 kg / pc</b> ): <b>5.0 kg / pc</b>			300: <b>5.6</b> 400: <b>7.5</b>					
Colour & design			w Vario De	esign Colou	rs						
		White	Granite	Steel	Green Marble	Сор	per	Oak	Brass	Sandstor	ne Concreto
Sound absorption		EN ISO 354	a <sub>w</sub> = <b>0.50</b>	(MH) (300mm)	as per EN ISC	11654					
-	<b>₩</b> >	Frequency f (F				125	250	500	1000	2000	4000
		Baffles 1200 × α <sub>P</sub> Row distance				0.15	0.25	0.45	0.90	0.90	0.95
			00mm) as per A	STM C 423							
Fire reaction	8	Euroclass A	<b>2-s1,d0</b> as pe	er EN 13501	-1						
Humidity resistance	00	90%									
Indoor air quality	<b></b>	A*ABC	EN 13964	SOR AIR COMPOSITION OF THE PROPERTY OF THE PRO							
		A+	E1	IACG							
Cleanability		<u></u>	<u></u>								
Sustainability		BIOGROLLIBLE WOOL  EC 127/2000 Anne Q									



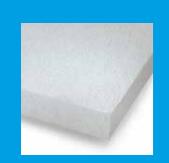


Options with this icon are available from our Vario Design range. Product availability may vary by country. Please contact your local sales representative. For further information and legal notice, please visit our website.



### Vertical Baffle Systems **MINERAL Baffle Element**

Individual / Grouped





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

28

■ Typically used in schools, offices, leisure centres, transport hubs, etc.

**Build on us.** 

Vertical Baffle Systems

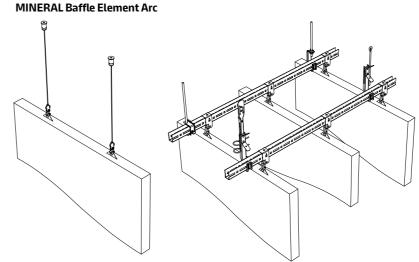
#### MINERAL Baffle Element Arc

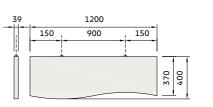
Individual / Grouped



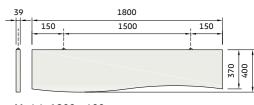
Characteristic **Detailed information** Thickness (mm) Dimensions (mm) 1200 × 400 1800 × 400 Additional sizes on request System Hanging Wire Kit **U-Profile Grouping Option** T-Grid Main Runner Grouping Option 1200 × 400: 5.0 kg/pc Weight 1800 × 400: **7.5 kg/pc** Vario Design Colours Colour & design White Sandstone Marble α<sub>w</sub> = **0.50(MH)** (300mm) as per EN ISO 11654 EN ISO 354 Sound absorption Frequency f (Hz) 250 500 1000 2000 4000  $\alpha_{\mbox{\tiny P}}$  Row distances 300mm 0.15 0.25 0.45 0.90 0.90 0.95 NRC = **0.65** as per ASTM C 423 Euroclass A2-s1,d0 as per EN 13501-1 Fire reaction 90% Humidity resistance Indoor air quality Cleanability Sustainability <u></u>

29





Module 1200 × 400 mm



Module 1800 × 400 mm

Options with this icon are available from our Vario Design range. Product availability may vary by 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 (MINERAL Baffle Line L only)





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

30

**Build on us.** 

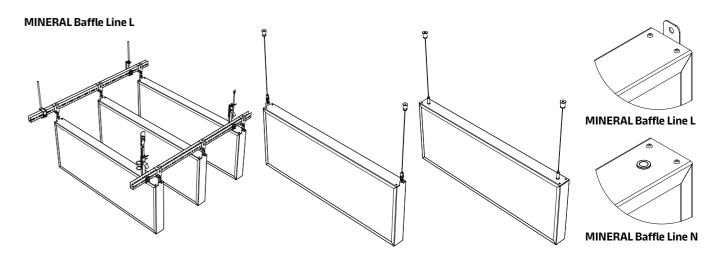
Vertical Baffle Systems

### MINERAL Baffle Line L/N

Individual / Grouped (MINERAL Baffle Line L only)



Characteristic		Detailed i	nformation								
Thickness (mm)	<u>↓</u>	50									
Dimensions (mm)	<b> ←→ </b>	1200 × 30 1200 × 40			1800 × 3 1800 × 4					Additional s	izes on reque
System	11	MINERAL E	Baffle Line N - Baffle Line L - Baffle Line L -	Wire Hange	er with tab co	nnector					
Weight	kg		0: <b>3.2 kg/pc</b> 0: <b>4.1 kg/pc</b>			00: <b>4.7 kg</b> 00: <b>6.0 kg</b>					
Colour & design		White	odised Alumin  Vario D  Granite  tom Graphic F	Steel	-	Copper	Oa	k E	Brass S	andstone	Concrete
Sound absorption		EN ISO 354	a <sub>w</sub> = <b>0.6</b>	<b>O(MH)</b> (300mi	m) as per EN ISO	11654					
	劉力	Frequency f (				125	250	500	1000	2000	4000
		Baffles 1200 α <sub>P</sub> Row distar				0.35	0.40	0.55	0.90	0.90	0.90
		NRC = <b>0.65</b> a	s per ASTM C 42	.3							
Fire reaction	8	Euroclass <b>F</b>	<b>A2-s1,d0</b> as p	oer EN 1350	)1-1						
Light reflectance	<u>Ā:7</u>	88%									
Humidity resistance	٥٥٥	90%									
Cleanability		<b>1</b>	<b>19</b>								
Sustainability		NOSOLUBLI WOOL									



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

Floating Canopy Systems

MINERAL

Sonic Element

Individual / Grouped





MINERAL Sonic Element is a frameless and jointless ceiling raft.

32

- 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.** 

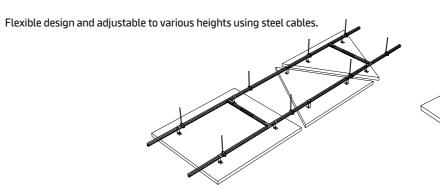
Floating Canopy Systems

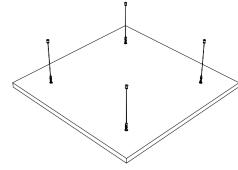
### **MINERAL Sonic Element**

Individual / Grouped



Characteristic		Detailed information									
Thickness (mm)	<u>↓</u>	40									
Dimensions (mm)	⊬→	Trapezoid       1180 × 870         Hexagon       1363 × 1180         Left Parallelogram       1180 × 1180         Right Parallelogram       1180 × 1180         Square       800 × 800         Square       1180 × 1180         Rectangle       1180 × 580         Rectangle       1780 × 880		Rectar Rectar Circle Circle Circle Conve Concar Triang	ngle x ve	Д	1780 × 1180 2380 × 1180 Ø 800 Ø 1200 Ø 1600 1170 × 1170 1170 × 1020 1180 × 1022 Additional sizes on re				
System	11	Individual: Wire Hanger Grouped: U-Profile									
Weight	(kg)	6.0 kg/m²									
Colour & design		White Granite Steel Green Marble	Copper	Oak	Br	ass Sa	ndstone	Concre			
Sound absorption		EN ISO 354									
350.10 0335. p. 10.11	<b>≫</b>	Frequency f (Hz) Equivalent Absorption Area Aobj*  Square: 1180 × 1180mm / Suspension height 190mm  Rectangle: 1780 × 1180mm / Suspension height 190mm  Rectangle: 2380 × 1180mm / Suspension height 190mm  Circle: Ø1200mm / Suspension height 150mm	0.40 0.80 0.80 0.40	250 1.20 2.10 2.70 1.00	500 2.20 3.10 4.20 1.70	2.40 3.30 4.40 1.80	2000 2.40 3.50 4.50 2.00	2.3 3.4 4.3 1.9			
Fire reaction	8	Euroclass <b>A2-s1,d0</b> as per EN 13501-1	^value	es shown are	tne average	or the 3 one	tnird octav	e band va			
Light reflectance	<u>Ā;</u>	Up to <b>88%</b>									
Humidity resistance	00	90%									
Indoor air quality	<b></b>	A E1 IAC									
Cleanability/ Sustainability		TOO LINE WOO.									





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

Floating Canopy Systems

MINERAL

Sonic Line

Individual





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, retails spaces, etc.

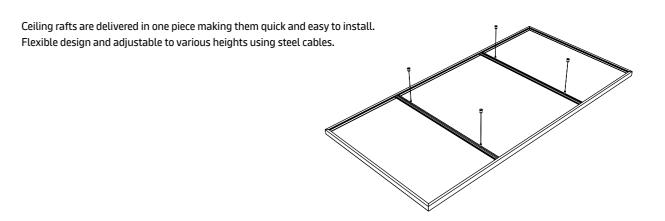
Floating Canopy Systems

### **MINERAL Sonic Line**

Individual



Characteristic **Detailed information** Thickness (mm) Dimensions (mm) 1200 × 600 1200 × 1200 1800 × 1200 2400 × 1200 System Wire Hanger Weight  $1200 \times 600$ : **5.0 kg/pc** 1200 × 1200: 10.0 kg/pc 1800 × 1200: 15.0 kg/pc 2400 × 1200: 20.0 kg/pc Colour & design Frame: Anodised Aluminium, White, Colours Vario Design Colours White Granite Steel Oak Brass Sandstone Concrete Green Copper Marble **Motif:** Custom Graphic Print EN ISO 354 Sound absorption Frequency f (Hz) Equivalent Absorption Area Aobj\* 125 250 500 1000 2000 4000 1200 × 1200mm Suspension height 193mm 0.40 1.10 2.00 1.60 2.00 2.10 2400 × 1200mm Suspension height 193mm 3.70 0.90 1.90 3.00 3.40 3.80 \*Values shown are the average of the 3 one third octave band values Euroclass **A2-s1,d0** as per EN 13501-1 Fire reaction Light reflectance Up to 88% Humidity resistance 90% Cleanability/ Sustainability



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

**Build on us.** 



Floating Canopy Systems

MINERAL

Sonic Line Arc

Individual





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

36

 MINERAL Sonic Line Arc allows you express your creativity and accentuate and area using new spacial effects

**Build on us.** 

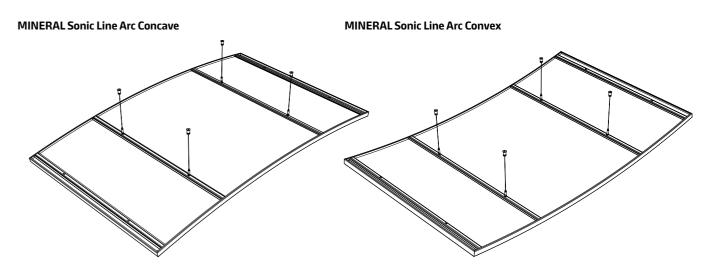
Floating Canopy Systems

### **MINERAL Sonic Line Arc**

ndividual



Characteristic **Detailed information** Edge details **MINERAL Sonic Line Arc Convex MINERAL Sonic Line Arc Concave** 1910 1910 Thickness (mm) 35 Dimensions (mm) 1910×1180 Wire Hanger System Weight 16.0 kg/pc Colour & design Vario Design Colours White Sandstone Concrete Marble EN ISO 354 Sound absorption Frequency f (Hz) 125 250 500 2000 Equivalent Absorption Area Aobj\* Square: 1180 × 1180mm / Suspension height 190mm 0.40 1.60 2.40 2.70 3.20 3.40 \*Values shown are the average of the 3 one third octave band values Euroclass **A2-s1,d0** as per EN 13501-1 Fire reaction Up to 88% Light reflectance Humidity resistance 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.

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

# Wall Systems MINERAL Wallcoustic Element Individual / Grouped





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 space
- The wall panel is delivered in one piece and is quick and easy to install using spiral anchors and wall brackets

38

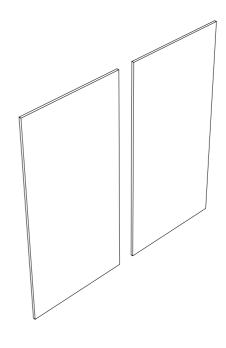
Wall Systems

### **MINERAL Wallcoustic Element**

Individual / Grouped



Characteristic		Detailed i	nformation								
Thickness (mm)	<u>↓</u>	40									
Dimensions (mm)	₩	Square Square Rectangle Rectangle Rectangle		1180 × 1 800 × 80 1180 × 5 1780 × 8 1780 × 1	0 80 80				A	dditional siz	es on reque
System	11	Spiral anch Wall brack									
Weight	(kg)	6.0 kg/m <sup>2</sup>	!								
Colour & design			□ Vario D	Design Colou	irs						
		White	Granite	Steel	Green Marble	Copper	Oak	Br	ass Sa	ndstone	Concret
Sound absorption		EN ISO 354									
South absorption	<b>製</b> 力	Frequency f ( Equivalent A	(Hz) Absorption Area	Aobj*		125	250	500	1000	2000	4000
		Square: 1180	0×1180mm/S	Suspension heigl	nt 190mm	0.40	1.20	1.90	1.90	1.90	1.80
		Rectangle: 17	780 × 1180mm	/ Suspension h	neight 190mm	0.50	1.70	2.70	2.80	2.80	2.60
						*Value	s shown are	the average	of the 3 one	third octave	e band val
Fire reaction	8	Euroclass <b>A</b>	<b>A2-s1,d0</b> as	per EN 1350	1-1						
Light reflectance	Ā; <u>√</u>	Up to <b>88%</b>	)								
Humidity resistance	00	90%									
Cleanability/ Sustainability		<b>®</b>	<u></u>	MOSCULALI WOOL							



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

**Build on us.** 



# Wall Systems MINERAL Wallcoustic Line Individual





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

40

**Build on us.** 

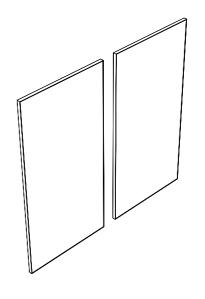
Wall Systems

### **MINERAL Wallcoustic Line**

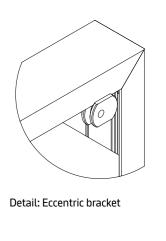
ndividual



Characteristic **Detailed information** Thickness (mm) Dimensions (mm) 1200 × 600 1200 × 1200 1800 × 1200 2400 × 1200 Additional sizes on request Eccentric Bracket System 9.4 kg/m<sup>2</sup> Weight Frame: Anodised Aluminium, White, Colours Colour & design Vario Design Colours Green White Copper Oak Brass Sandstone Concrete Marble Motif: Custom Graphic Print EN ISO 354 Sound absorption Frequency f (Hz) Equivalent Absorption Area Aobj\* 125 250 500 1000 2000 4000 Rectangle: 1200 × 600mm 0.20 1.00 0.90 0.80 0.90 0.60 Square: 1200 × 1200mm 1.50 0.50 1.10 1.60 1.50 1.50 Rectangle: 1800 × 1200mm 0.60 1.90 2.50 2.40 2.20 2.40 Rectangle: 2400 × 1200mm 1.10 2.20 3.10 3.00 3.10 3.10 \*Values shown are the average of the 3 one third octave band values Fire reaction Euroclass **A2-s1,d0** as per EN 13501-1 Light reflectance Up to 88% Humidity resistance 90% Cleanability/ Sustainability



41



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

# Wall Systems FABRIC Wallcoustic Line Individual





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

42

**Build on us.** 

Wall Systems

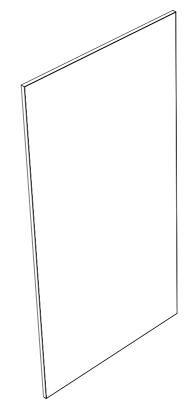
### **FABRIC Wallcoustic Line**

ndividual

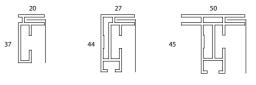


Characteristic		Detailed information								
Thickness (mm)	<u>↓</u>	43		27			50			
Dimensions (mm)	₩	600 × 600 1200 × 600		1200 × 1200 1800 × 1200 2400 × 1200 2400 × 2400	0		120 120 180 240	0 × 600 00 × 600 00 × 1200 00 × 1200 00 × 1200 00 × 2400		
System	11	Wall Bracket	,				'			
Weight	kg	3.0 - 6.0 kg/m <sup>2</sup>								
Colour & design		Frame: Anodised Aluminiu FABRIC Wallcoustic Line FABRIC Wallcoustic Line FABRIC Wallcoustic Line	<b>20:</b> Fabric <b>27:</b> Fabric	, White or Custo , White or Custo	om Grap	hic Print				
Sound absorption		EN ISO 354								
Souria absorption	<b>%</b>	Frequency f (Hz) Equivalent Absorption Area Aol	bj*		125	250	500	1000	2000	4000
		Rectangle: 1200 × 600mm			0.30	0.90	1.90	1.90	1.80	1.60
					*Valu	es shown are	the average	of the 3 one	third octave	band values
Humidity resistance	00	90%								
Cleanability		<b>19</b>								

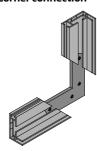
#### **FABRIC Wallcoustic Line**

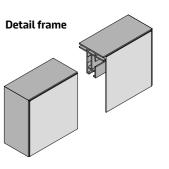


#### Profile cross-sections



#### Corner connection





Options with this icon are available from our Vario Design range.

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



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.

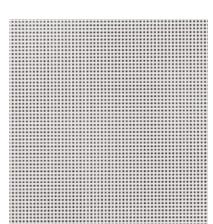
Choose from any of the following solutions—VARIOLINE Motif, Metal, Wood, Symetra and Colour to meet the acoustic, aesthetic and fire performance needs of your project.



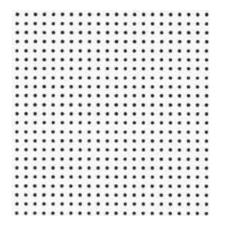
VARIOLINE Motif



VARIOLINE Wood



VARIOLINE Metal



VARIOLINE Symetra

# VARIOLINE Motif





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

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

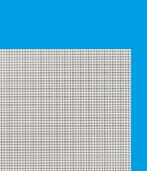
### **VARIOLINE Motif**



Characteristic		Detailed in	nformation								
Edge details	GD		VARIOLINE Motif (Alpha)		VARIOLIN Motif (de			ARIOLINE tif (Acoustic	)	VARIOLI Motif (H	
		Board	Tegular	Tegular	Vector			SL2		Finess	e
			24/90	15/90	۵	۵		A		A	
		-24-	φ 24 24	0	# 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	24	ç	24		24 9	+
Thickness (mm)	<u>↓</u>	19	19	19	24			19		19	
Dimensions (mm)	<b>←</b>	600×600 625×625 1200×600 1250×625	600×600 625×625 1200×600	600×600 1200×600	600×60 625×62 1200×60	25	C	n Request		600×6 625×6 1200×6 1250×6	525 500
System	11	Exposed de	mountable (S	System C)	Semi-concealer tiles, demounta (System C)		planks (Syster Bandra	oncealed , demountal n I.3) aster (Systen or (System F	ble (: m I.2)	Concealed, dem System A.2/A.:	
Weight	(kg)	3.3 kg/m <sup>2</sup> 5.0 kg/m <sup>2</sup> 5.2 kg/m <sup>2</sup> 8.6 kg/m <sup>2</sup>	(Finesse)	ılar)							
Colour & design		Customise	d Printed Mo	tifs							
Sound absorption [EN ISO 354]	<b>₩</b>	a = <b>0.65 (H</b>	pard, Tegular) - ( (Vector, SL2) - nesse) - <b>Class A</b>	Class C						[1	EN ISO 11654]
		Frequency f			1	25	250	500	1000	2000	4000
		α <sub>p</sub> Board, Teg	ular 24/90, Teg	gular 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
		α <sub>p</sub> SL2			0.	50	0.45	0.60	0.85	0.95	0.95
		α <sub>p</sub> Finesse			0.	50	0.70	0.80	0.90	1.00	1.00
		NRC = <b>0.90</b> ( NRC = <b>0.70</b> ( NRC = <b>0.85</b> (									[ASTM C 423]
Sound attenuation	<b>₹</b>	D <sub>n,f,w</sub> = 28 ( D <sub>n,f,w</sub> = 34 ( D <sub>n,f,w</sub> = 38 ( D <sub>n,f,w</sub> = 40 (	IB (Board, Te IB (Finesse) IB (Vector) IB (SL2)	gular)		AC = <b>35</b>	dB (Boar dB (Fine dB (Vect	sse)		]	ASTM E 413-10]
Fire reaction	$\bigcirc$	Euroclass I	\2-s1, d0 / (	C- <b>s1,d0</b> (depo	ending on the mo	tif, pictu	re, logo)				[EN 13501-1]
Thermal conductivity		$\lambda = 0.075$	W/mk (Board W/mk (Vecto W/mk (SL2,	or)							[EN 12667]
Air permeability	717	<b>PM1</b> (≤ 30	m³/hm²)								[DIN 18177]
Humidity resistance	00	95% RH									
Indoor air quality	<b>A</b>	<b>1</b>									

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

### **VARIOLINE** Metal





**VARIOLINE Metal** is a range of printed mineral ceilings that provides the capability for customised printed motifs, pictures and 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

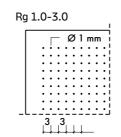
48

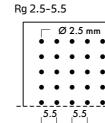
**Build on us.** 

### **VARIOLINE** Metal

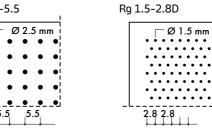


Characteristic		Detailed i	nformation										
Edge details	0.0		VARIOLINE Motif (Alpha	)		OLINE if (dB)		М	VARIOLIN otif (Acous		[EN ISO 116]  [System A.2/A.3]  [EN ISO 116]  [O00 2000 4000 [O.90 1.00 1.00 [O.80 0.95 0.95 [O.90 1.00 1.00 [ASTM E 41]  [EN 1350 [EN 12]		
		Board	Tegular	Tegular	Ve	ctor			SL2		Fine	sse	
		P	24/90 	15/90 P	ĝ	ĵ			Ŷ		Ŷ		
		24	24	15	₽ 5 1 -H <sup>7.5</sup>	\$\frac{1}{1}\frac{7}\frac{7}{1}\f			24		24 0		
Thickness (mm)	<u>↓</u>	19	19	19	2	24			19		19		
Dimensions (mm)	-	600×600 625×625 1200×600 1250×625	600×600 625×625 1200×600	600×600 1200×600	625	600×600 625×625 1200×600			On Request		625×625 1200×600		
System	11	Exposed dem	nountable (Syst	em C)	Semi-concea demountabl		<b>C</b> )	demo Bandr	concealed pl untable (Syst aster (Systen or (System F.	em l.3) n l.2			
Weight	O kg	3.3 kg/m <sup>2</sup> 5.0 kg/m <sup>2</sup> 5.2 kg/m <sup>2</sup> 8.6 kg/m <sup>2</sup>	(Finesse)	lar)									
Colour & design		White with	printed patte	erns: , Rg 1.5-2.8D	), Qg 3.0-8.5	j							
Sound absorption [EN ISO 354]	<b>₹</b>	a = 0.65 (H)	oard, Tegular) - <b>C</b> ) (Vector, SL2) - ( nesse) - <b>Class A</b>	llass A Class C							ı	[EN ISO 11654]	
		Frequency f	(Hz)			125	2	250	500	1000	2000	4000	
		-	ular 24/90, Teg	ular 15/90		0.50		.80	0.90	0.90		1.00	
		α <sub>p</sub> Vector				0.45		.40	0.60	0.80		1.00	
		α <sub>p</sub> SL2				0.50		.45	0.60				
		NRC = <b>0.70</b> (	Board, Tegular 2 Vector, SL2) as p Finesse) as per A		.5/90) as per AS	0.50 STM C 423		.70	0.80	0.90	1.00	1.00	
Sound attenuation	***	$\begin{array}{c} D_{n,f,w} = 28 c \\ D_{n,f,w} = 34 c \\ D_{n,f,w} = 38 c \\ D_{n,f,w} = 40 c \end{array}$	dB (Board, Teg dB (Finesse) dB (Vector) dB (SL2)	gular)	[EN ISO 7:	CA	C = <b>3</b>		Board, Tegu Finesse) /ector)	lar)		[ASTM E 413-10	
Fire reaction	8	Euroclass I	A2-s1, d0									[EN 13501-1	
Thermal conductivity		λ = 0.075	W/mk (Board W/mk (Vecto W/mk (SL2, I	r)								[EN 12667	
Air permeability	717	<b>PM1</b> (≤ 30	) m³/hm²)									[DIN 18177	
Humidity resistance	٥٥	95% RH											
Indoor air quality	<b></b>	AMAISC .											

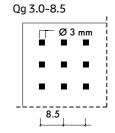




Α+



49



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

### **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

50

### **Build on us.**

### **VARIOLINE** Wood



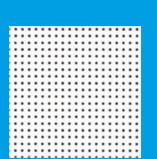
Characteristic		Detailed in	formation							
Edge details	0		VARIOLINE Wood (Alpha)	)	VARIOI Wood			OLINE Acoustic)		OLINE d (HD)
		Board	Tegular 24/90	Tegular 15/90	Vecto	or	SI	_2	Fin	esse
		124	24	15			0	24 24		
Thickness (mm)	<u>↓</u>	19	19	19	24		1	9	1	.9
Dimensions (mm)	$ \leftarrow $	600×600 625×625 1200×600 1250×625	600×600 625×625 1200×600	600×600 1200×600	600 × 625 × 1200 ×	625	On Re	equest	625 1200	× 600 × 625 × 600 × 625
System	11	Exposed demo	ountable (Syste	em C)	Semi-conceale demountable		Semi-concea demountable Bandraster (S Corridor (Sys	e (System I.3) System I.2)	Concealed, d (System A.2,	
Colour		Ash	Birch Cher	ry (EU) Cherry	(US) Larch	Oak				
Weight	kg	3.3 kg/m² (B 5.0 kg/m² (S 5.2 kg/m² (F 8.6 kg/m² (V	Board, Tegular) SL2) Sinesse)		. ,					
Sound absorption [EN ISO 354]	<b>₹</b>	a = 0.65 (H)	(Board, Tegula (Vector, SL2) - (Finesse) - <b>Cla</b>	Class C						[EN ISO 11654]
		Frequency f (H	lz)		125	250	500	1000	2000	4000
		α <sub>p</sub> Board, Tegi	ular		0.50	0.80	0.90	0.90	1.00	1.00
		$\alpha_p$ Vector $\alpha_p$ SL2			0.45 0.50	0.40	0.60	0.80	0.95 0.95	1.00 0.95
		α <sub>p</sub> SL2			0.50	0.70	0.80	0.83	1.00	1.00
		-		ır)		0.70		5170	2.00	[ASTM C 423]
Sound attenuation	<u></u> \$\sqrt{\sq}\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	D <sub>n,f,w</sub> = 28 dB D <sub>n,f,w</sub> = 34 dB D <sub>n,f,w</sub> = 38 dB D <sub>n,f,w</sub> = 40 dB	(Vector)	ır)	[EN ISO 7:	CAC	C = <b>29 dB</b> (Boa C = <b>35 dB</b> (Find C = <b>39 dB</b> (Vec	esse)	]	ASTM E 413-10]
Fire reaction	8	Euroclass A2	2-s1, d0							[EN 13501-1]
Thermal conductivity		λ = <b>0.075</b> W	//mk (Board, T //mk (Vector) //mk (SL2, Fin							[EN 12667]
Air permeability	717	<b>PM1</b> (≤ 30 n	m³/hm²)							[DIN 18177]
Humidity resistance	00	95% RH								
Indoor air quality	<b>☆</b>	MABIC								

51

Product availability may vary by country. Please contact your local sales representative.

For further information and legal notice, please visit our website.

### VARIOLINE Symetra





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
- Idea for offices, foyers and retail spaces

52

**Build on us.** 

### **VARIOLINE Symetra**



		Detailed i	information	1								
Edge details	<b></b> -	S.	VARIOLINE metra (Alph		VARIOLIN Symetra (d			RIOLIN ra (Aco			RIOLINE	
		Board	Tegular	Tegular	Vector	ш	Symet	SL2	ustic)		etra (HD) inesse	
		Doard	24/90	15/90	Vector			JLZ		• • • • • • • • • • • • • • • • • • • •	inesse	
		P	P	P	Ĥ ĝ	Î .24 .		Ŷ		Ŷ		
		- 24	24		E		10		-		-	
		1-24-1		15	1 -11/-3	-H <del>'.</del> 5	†	24		1 24	ęl	
Thickness (mm)	<u>↓</u>	19	19	19	24			19			19	
Dimensions (mm)		600×600	600×600	600×600	600×60	On	n Reques	t l	600×600			
Difficusions (min)	$\longleftrightarrow$	625×625	625×625		625×62		0.1	Tricques	•		25×625	
		1200×600 1200×600			1200×60					00×600		
		1250×625									50×625	
System	PP	Exposed der	mountable (Sy	stem C)	Semi-concealed demountable (Sy	•	Semi-con		ahla	(System A.2	demountable	
	그- 함				demodritable (5)	/stelli C)	(System		able	(System A.2	/A.3)	
							Bandras	ter (Syst	em I.2)			
							Corridor	(System	F.2)			
Weight	kg \	3.3 kg/m <sup>2</sup> 5.0 kg/m <sup>2</sup>	(Board, Tegula	ar)								
	[9]	5.0 kg/m <sup>2</sup>										
		8.6 kg/m <sup>2</sup>	(Vector)									
Colour & design			printed patte									
	₩ W	Rg 2.5-10,	Rg 4-10, Rg	4-16, Rg 4-1	6 / 4x4, RS 15-20	)						
Sound absorption [EN ISO 354]	<b>₹</b>		oard, Tegular) - C		F/ Class C						[EN 13501-	
[2.1.50 55 .]	2111			s per EN ISO 116 ISO 11654 - <b>Cl</b> a								
		Frequency f	(Hz)		12	5 2	250	500	1000	2000	4000	
		α <sub>p</sub> Board, Teg	ular		0.5			0.90	0.90	1.00	1.00	
		α <sub>p</sub> Vector			0.4	.5   (	).40	0.60	0.80	0.95	1.00	
		- CI 2						0.40				
		α <sub>p</sub> SL2			0.5	50 C		0.60	0.85	0.95	0.95	
		α <sub>p</sub> Finesse	(Deard Territor)			50 C		0.60			0.95 1.00	
		α <sub>p</sub> Finesse NRC = <b>0.90</b> ( NRC = <b>0.70</b> (			0.5	50 C			0.85	0.95	0.95 1.00	
		α <sub>p</sub> Finesse NRC = <b>0.90</b> (	(Vector, SL2)		0.5	50 C			0.85	0.95	0.95 1.00	
Sound attenuation	-A-	a, Finesse  NRC = <b>0.90</b> ( NRC = <b>0.70</b> ( NRC = <b>0.85</b> (	(Vector, SL2) (Finesse)		0.5	50 C	).70	0.80	0.85	0.95	0.95 1.00 [ASTM C 42	
Sound attenuation	<b>₹</b>	α <sub>p</sub> Finesse  NRC = <b>0.90</b> ( NRC = <b>0.70</b> ( NRC = <b>0.85</b> (  D <sub>n,f,w</sub> = <b>28</b> d D <sub>r,f,w</sub> = <b>34</b> d	(Vector, SL2) (Finesse) IB (Board, Teg IB (Finesse)		0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42	
Sound attenuation	<b>₹</b>	α <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 38 d	(Vector, SL2) (Finesse) IB (Board, Teg IB (Finesse) IB (Vector)		0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	).70 I <b>B</b> (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42	
	<u></u>	α <sub>p</sub> Finesse  NRC = <b>0.90</b> (  NRC = <b>0.70</b> (  NRC = <b>0.85</b> (  D <sub>n,f,w</sub> = <b>28</b> d  D <sub>n,f,w</sub> = <b>34</b> d  D <sub>n,f,w</sub> = <b>38</b> d  D <sub>n,f,w</sub> = <b>40</b> d	(Vector, SL2) (Finesse) IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2)		0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1	
	<u></u>	α <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 38 d	(Vector, SL2) (Finesse) IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2)		0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1	
Fire reaction	8	α <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 38 d D <sub>n,f,w</sub> = 40 d Euroclass A	(Vector, SL2) (Finesse) IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0	ular) [E	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1	
Fire reaction		a <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 40 d Euroclass A	(Vector, SL2) (Finesse) IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2)	ular) [E	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1	
Fire reaction	8	a <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 40 d Euroclass A  λ = 0.040 W λ = 0.075 W λ = 0.060 W	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1	
Fire reaction Thermal conductivity	<u></u>	$\alpha_p$ Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 ( $D_{n,f,w} = 28 \text{ d}$ $D_{n,f,w} = 34 \text{ d}$ $D_{n,f,w} = 40 \text{ d}$ Euroclass A $\lambda = 0.040 \text{ W}$ $\lambda = 0.075 \text{ W}$	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1	
Fire reaction Thermal conductivity Air permeability	<ul> <li>□</li> <li>□</li></ul>	$\alpha_p$ Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 ( $\alpha_p$ = 28 d $\alpha_p$ = 34 d $\alpha_p$ = 34 d $\alpha_p$ = 40 d  Euroclass A $\alpha_p$ = 0.040 W $\alpha_p$ = 0.060 W  PM1 ( $\alpha_p$ = 30	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1 [EN 13501-	
Fire reaction Thermal conductivity Air permeability	<ul> <li>□</li> <li>□</li></ul>	a <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 40 d Euroclass A  λ = 0.040 W λ = 0.075 W λ = 0.060 W	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1 [EN 13501-	
Fire reaction Thermal conductivity Air permeability Humidity resistance		$\alpha_p$ Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 ( $\alpha_p$ = 28 d $\alpha_p$ = 34 d $\alpha_p$ = 34 d $\alpha_p$ = 40 d  Euroclass A $\alpha_p$ = 0.040 W $\alpha_p$ = 0.060 W  PM1 ( $\alpha_p$ = 30	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1 [EN 13501-	
Fire reaction Thermal conductivity Air permeability Humidity resistance	<ul> <li>□</li> <li>□</li></ul>	$\alpha_p$ Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 ( $\alpha_p$ = 28 d $\alpha_p$ = 34 d $\alpha_p$ = 34 d $\alpha_p$ = 40 d  Euroclass A $\alpha_p$ = 0.040 W $\alpha_p$ = 0.060 W  PM1 ( $\alpha_p$ = 30	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1 [EN 13501-	
Fire reaction Thermal conductivity Air permeability Humidity resistance		$\alpha_p$ Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 ( $\alpha_p$ = 28 d $\alpha_p$ = 34 d $\alpha_p$ = 34 d $\alpha_p$ = 40 d  Euroclass A $\alpha_p$ = 0.040 W $\alpha_p$ = 0.060 W  PM1 ( $\alpha_p$ = 30	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1 [EN 13501-	
Fire reaction Thermal conductivity Air permeability Humidity resistance		$α_p$ Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 ( $0 = 0.85 = 0.8$	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	dB (Board,	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1 [EN 13501-	
Fire reaction Thermal conductivity Air permeability Humidity resistance Indoor air quality		$α_p$ Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 ( $0 = 0.85 = 0.8$	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular) ) inesse)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	ilB (Board, ilB (Finesse	0.80 Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1 [EN 13501-	
Fire reaction Thermal conductivity Air permeability Humidity resistance Indoor air quality		α <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 40 d Euroclass A  λ = 0.040 W λ = 0.075 W λ = 0.060 W  PM1 (≤ 30  95% RH	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse)  IB (Vector) IB (Vector) IB (SL2)  A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, Fm³/hm²)	ular) [E , Tegular) ) inesse)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	ilB (Board, ilB (Finesse	Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42 [ASTM E 413-1] [EN 13501-	
Fire reaction Thermal conductivity Air permeability Humidity resistance Indoor air quality		α <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 40 d Euroclass A  λ = 0.040 W λ = 0.075 W λ = 0.060 W  PM1 (≤ 30  95% RH	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse) IB (Vector) IB (SL2) A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, F	ular) [E , Tegular) ) inesse)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	ilB (Board, ilB (Finesse	Tegular)	0.85	0.95	0.95 1.00 [ASTM C 4:2  [ASTM E 413-1  [EN 13501  [EN 1266  [DIN 1817	
Fire reaction Thermal conductivity Air permeability Humidity resistance Indoor air quality		α <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 40 d Euroclass A  λ = 0.040 W λ = 0.075 W λ = 0.060 W  PM1 (≤ 30  95% RH	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse)  IB (Vector) IB (Vector) IB (SL2)  A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, Fm³/hm²)	ular) [E , Tegular) ) inesse)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	ilB (Board, ilB (Finesse	Tegular)	0.85	0.95	0.95 1.00 [ASTM C 42  [ASTM E 413-1]  [EN 13501-  [EN 1266  [DIN 1817	
Fire reaction Thermal conductivity Air permeability Humidity resistance Indoor air quality		α <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 40 d Euroclass A  λ = 0.040 W λ = 0.075 W λ = 0.060 W  PM1 (≤ 30  95% RH	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse)  IB (Vector) IB (Vector) IB (SL2)  A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, Fm³/hm²)	ular) [E , Tegular) ) inesse)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	ilB (Board, ilB (Finesse	Tegular)	0.85	0.95 1.00	0.95 1.00 [ASTM C 42  [ASTM E 413-1]  [EN 13501-  [EN 1266  [DIN 1817	
Fire reaction Thermal conductivity Air permeability Humidity resistance Indoor air quality		α <sub>p</sub> Finesse  NRC = 0.90 ( NRC = 0.70 ( NRC = 0.85 (  D <sub>n,f,w</sub> = 28 d D <sub>n,f,w</sub> = 34 d D <sub>n,f,w</sub> = 40 d Euroclass A  λ = 0.040 W λ = 0.075 W λ = 0.060 W  PM1 (≤ 30  95% RH	(Vector, SL2) (Finesse)  IB (Board, Teg IB (Finesse)  IB (Vector) IB (Vector) IB (SL2)  A2-s1, d0  N/mk (Board, N/mk (Vector) N/mk (SL2, Fm³/hm²)	ular) [E , Tegular) ) inesse)	0.5 0.5 EN ISO 717-1] C.	60 C 60 C 6AC = <b>29</b> C 6AC = <b>35</b> C	ilB (Board, ilB (Finesse	Tegular)	0.85	0.95 1.00	0.95 1.00 [ASTM C 42  [ASTM E 413-1]  [EN 13501-  [EN 1266  [DIN 1817	

53

Product availability may vary by country. Please contact your local sales representative.

For further information and legal notice, please visit our website.



# 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

54

Build on us.

### **VARIOLINE Colour**



Characteristic		Detailed i	nformation										
Edge details	0	c	VARIOLINE olour (Alpha	)	VARIOLI Colour (			/ARIOLINE our (Acoust		VARIO Colour			
		Board	Tegular	Tegular	Vector			SL2		Finesse			
		п	24/90	15/90 P	â â		ô			ô			
		124	∞ 24 24	15	2 -17.5		24			24 01			
Thickness (mm)	<u>↓</u>	19	19	19	24			19		19			
Dimensions (mm)	-	600 × 600 625 × 625 1200 × 600 1250 × 625	625×625 625×625 1200×600 625×625 1200×600 1200×600 1200×600			n Request		600 × 600 625 × 625 1200 × 600 1250 × 625					
System	11	Exposed der	Exposed demountable (System C) Semi-co			tiles, /stem C)	Semi-concealed planks, demountable (System I.3) Bandraster (System I.2) Corridor (System F.2)			Concealed, demountable (System A.2/A.3)			
Weight	Q kg	5.0 kg/m <sup>2</sup> 5.2 kg/m <sup>2</sup>	3.3 kg/m² (Board, Tegular) 5.0 kg/m² (SL2) 5.2 kg/m² (Finesse) 8.6 kg/m² (Vector)										
Colour & design		All RAL an	d NCS colour	are availabl	e for print								
Sound absorption [EN ISO 354]	<b>₹</b>	$\alpha_{\rm w}$ = 0.95 (Board, Tegular) - Class A $\alpha_{\rm w}$ = 0.65 (H) (Vector, SL2) - Class C $\alpha_{\rm w}$ = 0.90 (Finesse) as per EN ISO 11654 - Class A											
		Frequency f	(Hz)		12	25	250	500	100	0 2000	4000		
		α <sub>p</sub> Board, Teg	ular		0.		0.80	0.90	0.90		1.00		
		α <sub>p</sub> Vector			0.		0.40	0.60	0.80		1.00		
		α <sub>p</sub> SL2			0.		0.45	0.60	0.85		0.95 1.00		
		α <sub>p</sub> Finesse 0.50 0.70 0.80 0.90 1.00  NRC = <b>0.90</b> (Board, Tegular 24/90, Tegular 15/90)  NRC = <b>0.70</b> (Vector, SL2)											
Sound attenuation	***	D <sub>n,f,w</sub> = 28 ( D <sub>n,f,w</sub> = 34 ( D <sub>n,f,w</sub> = 38 ( D <sub>n,f,w</sub> = 40 (	dB (Board, Ted dB (Finesse) dB (Vector)	gular)		AC = <b>35</b>	dB (Boar dB (Fine dB (Vect	sse)		]	ASTM E 413-10]		
	8			<b>C-s1,d0</b> (depe	ending on the col	our)					[EN 13501-1]		
Fire reaction			$\lambda$ = <b>0.040 W/mk</b> (Board, Tegular) [EN 1 $\lambda$ = <b>0.075 W/mk</b> (Vector) $\lambda$ = <b>0.060 W/mk</b> (SL2, Finesse)								[EN 12667]		
Thermal conductivity		λ = 0.075	W/mk (Vecto	or)									
		λ = 0.075	W/mk (Vecto W/mk (SL2,	or)							[DIN 18177]		
Thermal conductivity		$\lambda = 0.075$ $\lambda = 0.060$	W/mk (Vecto W/mk (SL2,	or)							[DIN 18177]		

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

### **SEAMLESS ACOUSTIC**

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**





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.

 $\blacksquare$  Excellent sound absorption (0.95  $\alpha_w$ )

58

- Enhanced endurance against surface pollution due to a sophisticated backfoil technology
- Ideal for restaurants, retail and leisure, office, education and residential

### ELEGANZA



Characteristic		Detailed infor	rmation								
Edge details	<b>6</b> 40	Seamless									
Thickness (mm)	<b>→</b>	25									
Dimensions (mm)	$ \leftarrow $	2400×1200 (	panel)								
System	11	Seamless - ELE	eamless - ELEGANZA								
Weight	O kg \	Panel weight: <b>5</b> Finished ceiling		m²							
Colour		White								[RAL colours ava	ilable on request]
Sound absorption		EN ISO 354	a <sub>w</sub> = <b>0.95</b> a	as per EN ISO 1	11654 - <b>Class</b>	A					[ASTM C 423]
[EN ISO 354]	<b>₩</b> 2	Frequency f (Hz)				125	250	500	1000	2000	4000
	_	$\mathfrak{a}_{_{p}}$				0.45	0.80	0.90	0.95	1.00	1.00
		NRC = <b>0.50</b>									[ASTM C 423]
Sound attenuation [EN ISO 10848-2]	**	$D_{n,f,w} = 33 dB$			[EN ISO 717-1	CAC =	33 dB			[	ASTM E 413-10]
Sound reduction [EN ISO 10140-2]	薬	R <sub>w</sub> = <b>18 dB</b>									[EN ISO 717-1]
Fire reaction	8	Euroclass <b>A2-s</b>	<b>1, d0</b> <sup>(2)</sup>								[EN 13501-1]
Light reflectance	<u>Ř</u> .	Up to <b>84%</b> (wh	iite)								
Thermal conductivity		λ = <b>0.060 W/n</b>	nK								[EN 12667]
Humidity resistance	٥٥	95% RH									
Indoor air quality	<b></b>	A+ A B C	R AIR COMP Seurofins 2 GOLD FROM								
a		A+ I/	ACU								
Cleanability / Sustainability		<b>1</b>	(A)								
			67% <sup>2)</sup>								

**Build on us.** 

<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.

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

### **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.



Experience More Choice than Ever Before

### ADAGIO Acoustic\*



ADAGIO Acoustic\* offers a smooth, white, 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 (0.65 α<sub>w</sub>) and high sound attenuation:
   Board, Tegular, SL2, SL2/Tegular, Finesse (39 dB)
   Vector (38 dB)
- Excellent light reflectance (88%)

62

- 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



Mineral ceiling

#### ADAGIO Acoustic



Characteristics		Detailed in	formation										
Edge details	<b>CP *C</b>	Board	Tegular 24/90	Tegular 15/90	0	V Î	ector	SL2	SL2/ Tegular 15/90	Finesse			
Thickness (mm)	<u>↓</u>	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	625     625 x 625       675     675 x 675       600     1200 x 300       1250 x 625     1200 x 600       1250 x 625     1250 x 625       1250 x 625     1350 x 300			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	1	Exposed demounta	Exposed demountable - System C System C Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable - System F.3 Semi-concealed tiles, demountable - System I.3 Semi-concealed planks, demountable - System I.3										
Weight	kg	5.0 - 8.6 kg	5.0 - 8.6 kg/m²										
Colour		White	White										
Sound absorption	<b>₹</b>	EN ISO 354 α <sub>w</sub> = <b>0.65(H)</b> as per EN ISO 11654 - <b>Class C</b> Frequency f (Hz) 125 250 500 1000 2000 4000											
Ziii		$\begin{array}{c} \alpha_p & (\text{Board, Tegular 24/90, Tegular 15/90,} \\ & \text{SL2, SL2/Tegular 15/90, Finesse)} \\ \alpha_p & (\text{Vector}) \end{array}$			(	0.35	0.45	0.60	0.80 0.90 0.80 0.95	0.90			
Sound attenuation	**	EN ISO 108 D <sub>n,f,w</sub> = <b>39 dl</b> SL2 /	<b>3</b> (Board, Tegu 'Tegular 15/	C 423 ular 24/90, Tegula 90, Finesse) as per er EN ISO 717-1				CAC = <b>39 dB</b> as <sub> </sub>	per ASTM E 413-:	10			
Sound reduction	華	EN ISO 101 R <sub>w</sub> = <b>22 dB</b> (		ar 24/90, Tegular 1	15/9	0, SL2	, SL2 / Te	gular 15/90, Fi	nesse) as per EN	SO 717-1			
Fire reaction	8	Euroclass <b>A</b> 2	<b>2-s1, d0</b> as p	er EN 13501-1									
Light reflectance	Ā;√	88%											
Thermal conductivity		λ = 0.060 W	<b>I/mk</b> as per E	N 12667									
Air permeability	7/7	PM1 (≤ 30 ı	<b>m³/hm²)</b> as p	er DIN 18177									
Humidity resistance	00	95% RH											
Clean room	*	ISO 4 as per	EN ISO 1464	44-1									
Indoor air quality	<b></b>	A+ABC	EN 13964 E1	CONTROL CONTRO									
Cleanability		<b>199</b>	<b>190</b> 0	10									
Sustainability		35.1-36.9% (2024)	EPD P P P P P P P P P P P P P P P P P P	BIOSCIUBLE WOOL  STATES ON CO	> FOR BUILD	CERTIFIC CRADIES OF SERONZ	radje	rww.blauer-engel.de/	uz132				

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

**Build on us.** 



### ADAGIO Alpha<sup>+</sup>



ADAGIO Alpha+ offers a smooth, white, 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 α<sub>w</sub>)
- 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.)



### ADAGIO Alpha⁺



Characteristics		Detailed information								
Edge details	0.0	Board	Tegula	ar 24/90		Teg	jular 15/90			
				<u> </u>		_				
			8	24			× 15			
Thickness (mm)	<b>↓</b>	20		20			20			
THICKHESS (IIIII)	<u>↓</u>	20					20			
Dimensions (mm)	$\leftarrow$	600 x 600 625 x 625		) x 600 5 x 625		600 x 600 1250 x 62 625 x 625 1350 x 30				
		675 x 675 1200 x 300	675	x 675 x 300		675 x 675 1200 x 300	135	50 x 600 00 x 600		
		1200 x 600	1200	) x 600		1200 x 600		00 x 600		
		1250 x 625 1500 x 600	1500	) x 625 ) x 600						
		1800 x 600	1800	) x 600						
System	ľ	Exposed demountable - System C				xposed dem xposed - Ba		System		
					C	lemountable	- System I.			
						xposed - Co System F.3	rridor, dem	ountabl		
Weight	_0_	3.4 kg / m²				ystelli i.s				
vveignt	kg	3.4 kg/ III								
Colour										
	<b>™</b>	White								
Sound absorption		EN ISO 354		n =	= <b>1.00</b> as n	er EN ISO 11	654 - Clas	ss A		
ooana asserption	<b>₩</b> Z	Frequency f (Hz)	125	250	500	1000	2000	400		
		α <sub>p</sub>	0.55	0.80	1.00	0.95	1.00	1.00		
		NRC = <b>0.95</b> as per ASTM C 423								
Sound attenuation	<b>₹</b>	EN ISO 10848-2								
	201	Dn.f.w = <b>25 dB</b> as per EN ISO 717-1		CAC = <b>2</b>	<b>6 dB</b> as per	ASTM E 413	-10			
Sound reduction	華	EN ISO 10140-2 Rw = <b>12 dB</b> as per EN ISO 717-1								
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 1350	1-1							
Thereaction	8	,,,,,,,								
Light reflectance	Ā;√	88%								
Thermal conductivity		<b>λ = 0.040 W/mk</b> as per EN 12667								
Air permeability	717	<b>PM3 (≤ 100 m³/hm²)</b> as per DIN 18	177							
Humidity resistance	٥٥	95% RH								
Clean room	*	<b>ISO 4</b> as per EN ISO 14644-1								
		•								
Indoor air quality	<b></b>	TO SOR AND COMPANY COM								
		ATABLE FN 13964								
		A+ E1 IACG								
Cleanability		<del>-</del>								
Sustainability		BIOSOLUBLE WOOL	asion c/.		AVE AVO					
Justaniability			5 MT) %	RYTHED	<b>(</b>					
		EN 15804 EC 1272/2008 Annex Q	740	etocradle	ww.blauer-eng	ol do/uz122				
		59.6% (2024)		(W)	** **.biauci=cilg	ULUGI UZ TOZ				

**Build on us.** 





### ADAGIO dB\*



ADAGIO dB+ offers a smooth, white, 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

#### Mineral ceiling

#### ADAGIO dB\*



Characteristics		Detailed information									
Edge details	6-5	Board	Te	egular 24/90			Tegula	r 15/90			
								J			
				∞ 24				15			
Thickness (mm)	<u>↓</u>	24,30		24			2	24			
	1	(00(00		/00··/00			(00.				
Dimensions (mm)	<b>├</b>	600 x 600 625 x 625		600 x 600 625 x 625							
		1200 x 600	1.	200 x 600			1200>	600			
		1250 x 625	17	250 x 625		- Francis	1250)		-t C		
System	ľ	Exposed demountable - System C					d demour d - Bandr	ntable - Sy aster.	stem C		
						demou	ntable - S	ystem I.3			
						Expose System		or, demou	ntable -		
NA/-tules	0	8.6 kg/m² (24mm)				Jysten					
Weight	kg	10.6 kg/m² (30mm)									
Colour											
	۵V	White									
Sound absorption	<b>₹</b>	EN ISO 354	er EN ISO 11654 <b>- Class C</b>								
	201	Frequency f (Hz)		125	250	500	1000	2000	4000		
		α <sub>P</sub> 24 mm		0.40	0.45	0.60	0.80	0.85	0.85		
		α <sub>P</sub> 30mm	0.65	0.85	0.90	0.95					
		NRC = <b>0.70</b> as per ASTM C 423									
Sound attenuation	<b>₹</b>	EN ISO 10848-2									
	3112	D <sub>n,f,w</sub> = <b>41 dB</b> (24mm) as per EN ISO 72 D <sub>n,f,w</sub> = <b>43 dB</b> (30mm) as per EN ISO 72			• <b>43 dB</b> (24 • <b>44 dB</b> (30						
				CAC-	<b>44 UD</b> (30	iiiii) as pe	AJIML	413-10			
Sound reduction	季	EN ISO 10140-2 Rw = <b>24 dB</b> (24mm) as per EN ISO 71	.7-1	Rw = 2	<b>25 dB</b> (30n	nm) as pe	r EN ISO 7	17-1			
Fire reaction		Euroclass <b>A2-s1, d0</b> as per EN 1350	)1-1								
	8										
Light reflectance	Ā:7	88%									
Thermal conductivity		<b>λ = 0.040 W/mk</b> as per EN 12667									
Air permeability	₹1₹	<b>PM1</b> (≤ 30 m³/hm²) as per DIN 181	77								
Humidity resistance	٥٥٥	95% RH									
Clean room	*	ISO 4 as per EN ISO 14644-1									
	74										
Indoor air quality	<b>3</b>	1 TON STANFORM									
		EN 13964									
Cleanability		A+ E1 IACG									
cicariability											
		000									
Sustainability		BIOSOLUBLE WOOL	ENEZPION CLASS		BIL	E ANGEL					
-			<b>M1&gt;</b>	CERTIFIED	N. S.						
		EN 15804 EC 1272/2008 Annex Q	TASTAM SMIGH	cradle to cradle	www.blauer-	engel.de/117	132				
		36.8-37.4% (2024)		,							

**Build on us.** 



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

### ADAGIO HD+19mm



ADAGIO HD+ 19mm offers a smooth, white, 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.

- $\blacksquare$  Excellent sound absorption (0.90  $\alpha_{w}$  ) with good sound attenuation (34 dB)
- For additional acoustical options, please refer to ADAGIO HD<sup>+</sup> 30mm and ADAGIO HD<sup>+</sup> 35mm
- Excellent light reflectance (88%)
- ISO 4, Indoor Air Comfort Gold and Cradle to Cradle Certified® Bronze
- Ideal for individual / private offices and corridors



Mineral ceiling

### ADAGIO HD\* 19mm



Characteristics		Detailed in	formation									
Edge details	<b>6</b> 50	Board	Tegular 24/90	Tegular 15	/90		SL2		Finesse			
					_		- -	_	î _			
		1-24-1	∞ 24 <u>24</u>	15		18		2	24 9	<del></del>		
Thickness (mm)	<u>↓</u>	19	19	19			19		19			
Dimensions (mm)	$ \leftarrow $	600 x 600 625 x 625 675 x 675 1200 x 300 1200 x 600	600 x 600 625 x 625 675 x 675 1200 x 600 1250 x 625	600 x 60 625 x 62 675 x 67 1200 x 60 1250 x 62	25 75 00	1350 1500 1800	0 x 300 0 x 600 0 x 300 0 x 300 0 x 300		600 x 600 625 x 625 1200 x 600 1250 x 625			
		1250 x 625	=====	1350 x 30 1350 x 60	00							
System		Exposed demo System C	untable -	Exposed, demountable - System C Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable -System F.3			led planks, - System I.3 led planks - lemountable - led planks - lountable -		Concealed,demountable - System A.2 / A.3			
Weight	kg	5.2 kg / m²	2 kg/m²									
Colour		White	White									
Sound absorption	<b>₹</b>	EN ISO 354	EN ISO 354 α <sub>w</sub> = <b>0.90</b> as per EN ISO 11654 - <b>Class</b>									
	301	Frequency f (Hz)	)		125	250	500	1000	2000	4000		
		α <sub>P</sub> NRC = <b>0.90</b> a	as per ASTM C 4	23	0.45	0.75	0.85	0.85	1.00	1.00		
Sound attenuation	繁	EN ISO 1084				CAC = <b>3</b> !	<b>dB</b> as per AS	STM E 413-	10			
Sound reduction	華	EN ISO 1014 Rw = <b>17 dB</b> a	40-2 as per EN ISO 71	.7-1								
Fire reaction	8	Euroclass A2	<b>2-s1, d0</b> as per E	N 13501-1								
Light reflectance	Ω̈́.	88%										
Thermal conductivity		λ = 0.060 W	<b>//mk</b> as per EN 1	L2667								
Air permeability	717	PM2 (≤ 50 n	m³/hm²) as per [	DIN 18177								
Humidity resistance	00	95% RH										
Clean room	*	ISO 4 as per	EN ISO 14644-	1								
Indoor air quality	<b></b>	A+ABC	EN 13964	eurofins  ED PROBLE  ACG								
Cleanability		<u></u>		<b>√</b>								
Sustainability		49.1% (2024)	EN 15804 EC 1272	LUBLE WOOL  2 M1  2 M2  2 M2	) n	CERTUIED O	ww.blauer-engel	.de/uz132				

69

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

**Build on us.** 

### **ADAGIO** HD+30mm



ADAGIO HD+ 30mm offers a smooth, white, 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.

- $\blacksquare$  Excellent sound absorption (0.90  $\alpha_w$ ) with good sound attenuation (41 dB)
- $\blacksquare$  For additional acoustical options, please refer to ADAGIO HD  $^{\scriptscriptstyle +}$  19mm and ADAGIO HD+ 35mm
- Excellent light reflectance (88%)

70

- ISO 4, Indoor Air Comfort Gold and Cradle to Cradle Certified® Bronze
- Ideal for individual / private officesm classrooms and lecture halls in the education sector



Mineral ceiling

### ADAGIO HD+ 30mm



Characteristics		Detailed in	formation							
Edge details	0.0	Board	Tegular 24/90	Tegular 1	5/90	SI	.2		Finesse	
		24	<u>o</u> 24	(i) (ii) (iii) (ii		<u>m</u> 18		24	24 22	
Thickness (mm)	<u>↓</u>	30	30	30		3	0	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 6 625 x 6 675 x 6 1200 x 6 1250 x 6 1350 x 3	525 575 500 525 500	1350 x 300 1350 x 600 1500 x 300 1800 x 300 2000 x 300		600×600 625×625 1200×600 1250×625		
System	1	Exposed demo System C	Exposed demountable - System C System C Exposed - Bai demountable Exposed - Coi demountable			Semi-concea planks, demo System I.3 Semi-concea Bandraster, c - System I.2 Semi-concea - Corridor, de -System F.2	untable - led planks - emountable led planks	Concealed,demountable - System A.2 / A.3		
Weight	kg	8.2 kg / m²								
Colour		White								
Sound absorption	<b>₹</b>	EN ISO 354					<b>0.90</b> as per			1
	2111	Frequency f (Hz	)		125 0.50	250 0.75	500 0.80	1000 0.95	2000 1.00	1.00
		-	as per ASTM C 4	.23						
Sound attenuation	**	EN ISO 1084 Dn,f,w = <b>41 dB</b>	8-2 as per EN ISO 71	17-1		CAC = <b>42</b>	<b>dB</b> as per AS	STM E 413-:	10	
Sound reduction	季	EN ISO 101 Rw = <b>25 dB</b>	40-2 as per EN ISO 71	17-1						
Fire reaction	<u></u>	Euroclass A2	<b>2-s1, d0</b> as per E	EN 13501-1						
Light reflectance	Öέ.	88%								
Thermal conductivity		λ = 0.060 W	<b>//mk</b> as per EN 1	12667						
Air permeability	717	<b>PM1</b> (≤ 30 r	n³/hm²) as per D	OIN 18177						
Humidity resistance	00	95% RH								
Clean room	*	ISO 4 as per	EN ISO 14644-	1						
Indoor air quality	<b></b>	A+ABC	EN 13964 E1	CUTOTINE COLLEGE COLOR OF THE PROBLEM OF THE PROBLE						
Cleanability		<b>199</b>		10						
Sustainability		49.9% (2024)	EN 15804 EC 127	ALUBLE WOOL  27/2008 Annex Q	cradi	e to cradle	w.blauer-engel.	<b>de</b> /uz132		

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

05/2024 71

### ADAGIO HD+35mm



ADAGIO HD+ 35mm offers a smooth, white, 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 absorptvgood sound attenuation (43 dB)
- For additional acoustical options, please refer to ADAGIO HD<sup>+</sup> 19mm and ADAGIO HD<sup>+</sup> 30mm
- Excellent light reflectance (88%)

72

- 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



Mineral ceiling

### ADAGIO HD+ 35mm



05/2025

Characteristics		Detailed informati	ion						
Edge details	<b></b>	Board	Tegular 24/90		Tegular 15/9	90		SL2	
_		—	—Η		-Î-				_
		124	<del>∞</del> 24		∞ 15 15 15 15 15 15 15 15 15 15 15 15 15	_	13	18	
Thickness (mm)	<u>↓</u>	35	35		35			35	
Dimensions (mm)	اد یا	600 x 600	600 x 600		600 x 600			1350 x 300	
, ,	r 1	625 x 625 1200 x 600	625 x 625 1200 x 600		625 x 625 1200 x 600			1350 x 600 1500 x 300	)
		1250 x 625	1250 x 625		1250 x 625 1350 x 300			1800 x 300 2000 x 300	
					1350 x 600				
System	P	Exposed demountable -	System C		demountable		Semi-conc		Custom I 7
				- System I			Semi-conc	nountable - : ealed planks	- Bandraste
				Exposed - -System F	Corridor, dem	nountable	demountal Semi-conc	ole – System ealed planks	I.2 - Corridor.
							demountal	ole -System F	.2
Weight	kg	9.5 kg / m²							
Colour	€ A								
		White						,	
Sound absorption	<b>%</b>	EN ISO 354		125	α <sub>w</sub> =	<b>0.90</b> as pe	1000	654 <b>- Clas</b> 2000	<b>s A</b> 4000
		Frequency f (Hz)		0.40	0.70	0.85	0.95	1.00	1.00
		NRC = <b>0.90</b> as per AS	STM C 423	00	00	0.00	0.75	2.00	2.00
Sound attenuation	<b>₹</b>	EN ISO 10848-2 D <sub>n,f,w</sub> = <b>43 dB</b> as per EN	N ISO 717-1		CAC = <b>44</b>	<b>dB</b> as per AS	TM E 413-1	LO	
Sound reduction	薬	EN ISO 10140-2 R <sub>w</sub> = <b>25 dB</b> as per EN	ISO 717-1						
Fire reaction	=	Euroclass <b>A2-s1</b> , d0							
	8								
Light reflectance	įς.	88%							
Thermal conductivity		λ = 0.060 W/mk as	per EN 12667						
Air permeability	717	<b>PM1</b> (≤ 30 m³/hm²)	as per DIN 18177						
Humidity resistance	00	95% RH							
Clean room	*	ISO 4 as per EN ISO 1	L4644-1						
Indoor air quality			OR AIR COMPO						
		A+ E1	GOLD PROBLEM						
Cleanability									
		<b>®</b>	1/8						
Sustainability		Ay EPD		ION CLASS	TIFIED	BLUE AMORE			
		EN 15804	EC 1272/2008 Annex Q	cradje	tocradle	un planer and	de/uz122		
		49.4% (2024)			WV	vw.blauer-engel	.ue/uz132 J		

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



### 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



Health Dept., Jan Kochanowski University of Humanities & Sciences, Kielce, Poland © Szymon Polański

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
- Limits the growth of an extended scope of bacteria and fungi
- Resistant to disinfectants, it can be scrubbed and cleaned with steam
- Complies with Zone 4 risk requirements (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	o-co	Board	Teg	ular 24,	/90		Tegul	lar 15/90	
		124		∞ + <u>24</u>			80	15	
Thickness (mm)	<u>↓</u>	20		20				20	
Dimensions (mm)	k→l	600 × 600 1200 × 600	6	00 × 60	0		600	0 × 600	
System	11	Exposed demountable - System C							
Weight	(kg)	3.3 kg/m²							
Colour		White							
Sound absorption	<u>₹</u>	α <sub>w</sub> = <b>0.95</b> - Class A							[EN ISO 11654
[EN ISO 354]	311	Frequency f (Hz)		125	250	500	1000	2000	4000
		α <sub>p</sub> NRC = <b>0.95</b>		0.60	0.85	0.90	0.90	1.00	1.00 [ASTM C 423
Sound attenuation [EN ISO 10848-2]	<b>₹</b>	D <sub>n,f,w</sub> = 25 dB	[EN ISO 717-1]	CAC = 2	25 dB				[ASTM E 413-10
Sound reduction [EN ISO 10140-2]	承	R <sub>w</sub> = <b>12 dB</b>							[EN ISO 717-1
Fire reaction	8	Euroclass A2-s1, d0 Class A							[EN 13501-2
Light reflectance	Α̈́	88%							
Thermal conductivity		λ = 0.040 W/mK							[EN 1266]
Humidity resistance	٥٥	95% RH							
Clean room	*	ISO 3						[	EN ISO 14644-1
Risk level		Zone 4 (Very High Risk)						[NF	S 90-351:201
Microbiological Cleanliness		M1						[NF	S 90-351:2013
Kinetics of particle decontamination		CP <sub>(0,5)</sub> 5						[NF	S 90-351:201
Indoor air quality	<b></b>	A+ E1 IACG							
Cleanability		<b>19 19 27</b>	(A) (E	<b>₽</b> €♦	<u>100</u>				
Anti-microbial characteristics		Tested against: Escherichia coli, Staphy Acinobacter baumannii, Klebsiella pneu							
Sustainability		BIOSCIUBLE WOOL  WAS SECURAL OF THE							

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 by country. Please contact your local sales representative. For further information and legal notice, please visit our website.

74%

### MEDIGUARD Acoustic



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

### **MEDIGUARD Acoustic**



Characteristic		Detailed infor	rmation								
Edge details	0.0	В	oard			Tegular 24	4/90		Tegu	ılar 15/90	)
		_					_		_		
			-24 -			24			a	15	
Thickness (mm)	<u>↓</u>		19			19				19	
Dimensions (mm)	⊬→		0 × 600 0 × 600			600×6 1200×6				00 × 600 00 × 600	
System	11	Exposed demou	untable - Sy	stem C							
Weight	(kg \	5.0 kg/m²									
Colour	—— <b>ॐ</b>										
	<b>W</b>	White									
Sound absorption		EN ISO 354	a <sub>w</sub> = <b>0.65</b> (	H) as per EN	ISO 11654 -	Class C					
Souria absorption	<b>₹</b>	Frequency f (Hz)		125	250	500	1000	2000	4000		
		$\alpha_{P}$				0.40	0.40	0.60	0.80	0.90	0.85
		NRC = <b>0.70</b> as per									
Sound attenuation	<b>₹</b>		N ISO 10848-2 0 <sub>n,f,w</sub> = <b>38 dB</b> as per EN ISO 717-1 CAC = <b>39 dB</b> as per ASTM E 413-								
Sound reduction	華	EN ISO 10140- R <sub>w</sub> = <b>22 dB</b> as p		717-1							
Fire reaction	8	Euroclass <b>A2-s</b> : <b>Class A</b> as per A		r EN 1350	1-1						
Light reflectance	Α̈́	88%									
Thermal conductivity		λ = <b>0.060 W/</b> m	n <b>K</b> as per EN	N 12667							
Air permeability	₹₹	<b>PM1</b> (≤ 30 m³/	/hm²) as pe	r DIN 181	77						
Humidity resistance	٥٥٥	95% RH									
Clean room	*	ISO 4 as per EN	I ISO 14644	4-1							
Risk level		Zone 4 (Very Hi	igh Risk) as	per NF S 9	0-351:20	13					
Microbiological Cleanliness		<b>M1</b> as per NF S	90-351:20	013							
Kinetics of particle decontamination		<b>CP</b> <sub>(0,5)</sub> <b>5</b> as per N	NF S 90-35	1:2013							
Indoor air quality	<b></b>	A+	13964 E1	GOLD E							
Cleanability		<b>i</b>	<b>%</b>	<b>%</b>	<b>A</b>	<b>₽</b> €◆	16				
Anti-microbial characteristics		Tested against: Acinobacter bau								umoniae,	
Sustainability	_	<b>公</b> 经 <b>%</b> 会	SOLUBLE WOOL  272/2008 Annex G								
		35%									

35%

In addition to risk level, each room type will have specific requirement for the cleanability and air leakage of the ceiling tile.

 $Therefore, a tile which meets risk zone \ 4 \ requirements \ may \ not \ necessarily \ be \ suitable \ for \ all \ room \ types \ defined \ in \ risk \ zone \ 4.$ 

### MEDIGUARD Plain



MEDIGUARD Plain combines good cleanability alongside superior antimicrobial resistance, making it and ideal solutions for healthcare environments.

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

### **MEDIGUARD Plain**



Characteristic		Detailed information										
Edge details	<b></b>	Вс	pard	Te	gular	24		Te	gular 15			
		_			D				7			
			24	α	24				15			
Thickness (mm)	<u>↓</u>	=	15		15				15			
Dimensions (mm)	⊬→		× 600 ) × 600	60	00 × 6	00		60	00 × 600			
System	11	Exposed demou	ntable - System C	1								
Weight	(kg)	3.6 kg / m²										
Colour		White										
Sound absorption		EN ISO 354	α <sub>w</sub> = <b>0.20 (L)</b> as per EN	I ISO 11654 - <b>Class</b>	E							
	製力	Frequency f (Hz)		250	500	1000	2000	4000				
		α <sub>p</sub> NRC = <b>0.20</b> as per A	ASTM C 423	0	.40	0.25	0.15	0.15	0.20	0.30		
Sound attenuation	<b>₹</b>	EN ISO 10848-			CAC =	<b>35 dB</b> as	per ASTM	E 413-10				
Sound reduction	華	EN ISO 10140- R <sub>w</sub> = <b>19 dB</b> as pe	ISO 10140-2 = <b>19 dB</b> as per EN ISO 717-1									
Fire reaction	8	Euroclass <b>A2-s1 Class A</b> as per A	L <b>, d0</b> as per EN 1350 STM E 84	01-1								
Light reflectance	<u>Ā:7</u>	88%										
Thermal conductivity		λ = <b>0.060 W/m</b>	<b>K</b> as per EN 12667									
Air permeability	7/7	<b>PM1</b> (≤ 30 m³/h	nm²) as per DIN 181	77								
Humidity resistance	٥٥٥	95% RH										
Clean room	*	ISO 4 as per EN	ISO 14644-1									
Risk level		Zone 4 (Very Hig	gh 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</b> <sub>(0,5)</sub> <b>5</b> as per N	F S 90-351:2013									
Indoor air quality	<b></b>		13964 Scurofins E1 IACG									
Cleanability			<b>7</b>									
Anti-microbial characteristics	STEP STEP STEP STEP STEP STEP STEP STEP		Escherichia coli, Stap mannii, Klebsiella pr						umoniae,			
Sustainability		EN ISO 14021 24%	CLUBILE WOOL 2000 Areas O									

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 Aquatec



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

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

### **HYGENA Aquatec**



Characteristic		Detailed i	nformation	1							
Edge details	0.0	Во	ard	Tegular	24/90	Teg	ular 15/9	0		Finesse	
			<u> </u>				-Ĵ			Ē	_
			24	∞ <sup>†</sup> 24			15		2 2	18	
Thickness (mm)			L9	10	9		19			19	
Triicia (CSS (Triin)	<u>↑</u>	_	-,		,		1,			-,	
Dimensions (mm)	احا		× 600	600>			00 × 600			500 × 600	
	11 1		× 610 × 625	610 × 625 ×			10 × 610 25 × 625		6	525 × 625	
		1200	× 600								
			)×610 )×625								
System	0 0		mountable -	System C					Concealed,	demounta	ble -
	11								System A.2	/A.3	
Weight	kg	5.2 kg/m <sup>2</sup>									
Colour	€ A										
		White									
Sound absorption	<b>₹</b>	EN ISO 354 Frequency f (	w	90 as per EN ISO	11654 - <b>Class</b>	125	250	500	1000	2000	4000
	2111	α <sub>p</sub>	пг			0.60	0.70	0.85	0.90	1.00	1.00
			as per ASTM C 4	423							
Sound attenuation	<b>₹</b>	EN ISO 108									
	到了	D <sub>n,f,w</sub> = <b>29</b> c	<b>IB</b> as per EN	ISO 717-1			CAC	= 29 dB	as per ASTM	E 413-10	
Sound reduction	<b>薬</b>	EN ISO 10: R <sub>w</sub> = <b>16 dB</b>	140-2 Bas per EN IS	50 717-1							
Fire reaction				per EN 1350	1-1						
	6	Class A as	per ASTM E	84							
Light reflectance	<u>Ģ;√</u>	88%									
Thermal conductivity		λ = 0.060 \	<b>W/mk</b> as pe	r EN 12667							
		<b>D144</b> ( . 70	7.0	DIN 4047							
Air permeability	717	PM1 (≤ 30	m³/hm²) as	per DIN 1817	7						
Humidity resistance	٥٥	100% RH									
Clean room		<b>ISO 3</b> as pe	er EN ISO 14	644-1							
	*										
Risk level		Zone 4 (Ve	ry High Risk)	as per NF S 9	0-351:201	.3					
Microbiological Cleanliness		M1 as per l	NF S 90-351	1:2013							
Kinetics of particle		<b>CP</b> <sub>(0,5)</sub> <b>5</b> as	per NF S 90-	351:2013							
decontamination Indoor air quality											
indoor all quality	<b></b>	100	100	OOR AIR COME							
		A+A B C	EN 13964	GOLD E							
		A+	E1	IACG							
Cleanability /		<del>-</del> -0		0	<b>n</b> ≤∆	4	BIOSOLU	BLE WOOL			
Sustainability		(May)	(May)	632	A	<b>6%</b>	9 (	<b>D</b>			
			0	200		EN ISO 140	21 EC 1272/2	008 Annex Q			
		Tosted ana	inst• Escharia	chia coli, Staph	avlococcus a			ans			
Anti-microbial		resteu aga	IIISC ESCITOR	cilia coti, Stapi	iylucuccus a	iui eus, Cai	ilulua atbit	.0113			

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 it the optimal solution for spaces that need excellent sound absorption. The surface is washable antimicrobial.

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

**Build on us.** 

### **HYGENA Alpha**



Characteristic		Detailed information						
Edge details	0.0	Board	Tegular 2	4/90		Tegu	ılar 15/90	)
		124	10				15	
Thickness (mm)	<u>↓</u>	19	19				19	
Dimensions (mm)	₩	600 × 600 610 × 610 625 × 625 1200 × 600 1220 × 610 1250 × 625	600 × 6 610 × 6 625 × 6	510		61	00 × 600 .0 × 610 25 × 625	
System	11	Exposed demountable - System C						
Weight	kg	3.3 kg / m²						
Colour		White						
Sound absorption	$\overline{}$	EN ISO 354 $\alpha_{\rm w} = $ <b>0.95</b> as per EN ISO						
	劉力	Frequency f (Hz) α <sub>p</sub>	<b>125</b> 0.50	<b>250</b> 0.80	<b>500</b> 0.90	<b>1000</b> 0.90	<b>2000</b> 1.00	<b>4000</b> 1.00
		NRC = <b>0.90</b> as per ASTM C 423						
Sound attenuation	<b>₹</b>	EN ISO 10848-2 D <sub>n.f.w</sub> = <b>28 dB</b> as per EN ISO 717-1	CAC =	= <b>29 dB</b> as	per ASTM I	E 413-10		
Sound reduction	<b></b>	EN ISO 10140-2 R <sub>w</sub> = <b>14 dB</b> as per EN ISO 717-1						
Fire reaction	8	Euroclass <b>A2-s1, d0</b> as per EN 1350 <b>Class A</b> as per ASTM E 84	1-1					
Light reflectance	Ğ:Δ	87%						
Thermal conductivity		λ = <b>0.040 W/mK</b> as per EN 12667						
Air permeability	₹/₹	<b>PM1</b> (≤ 30 m³/hm²) as per DIN 1817	77					
Humidity resistance	٥٥٥	95% RH						
Clean room	*\}	ISO 4 as per EN ISO 14644-1						
Risk level		Zone 4 (Very High Risk) as per NF S 9	0-351:2013					
Microbiological Cleanliness		<b>M1</b> as per NF S 90-351:2013						
Kinetics of particle decontamination		<b>CP</b> <sub>(0,5)</sub> <b>5</b> as per NF S 90-351:2013						
Indoor air quality	<b></b>	A+ E1 IACG						
Cleanability / Sustainability		(50%) (50%)	BIOGOLUBLE WOOL  SC 1272/2008 Annex G					
Anti-microbial characteristics		Tested against: Escherichia coli, Stap	hylococcus aureus, Ca	andida albi	cans, Aspe	rgillus nige	r	

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 Acoustic 15mm



The laminated finish of HYGENA Acoustic 15mm creates a smooth, white appearance. It provides good levels of sound absorption and excellent sound atteanuation. 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 (NF S 90-351:2013)
- Excellent light reflectant (87%)
- Ideal for healthcare facilities, food industry, laboratories, etc.

### **HYGENA Acoustic 15mm**



Characteristic		Detailed information						
Edge details	00	Board	Tegular 2	4/90		Tegu	ılar 15/90	)
		<b>P</b>	7				P	
		124	∞ 24 <u>24</u>			α	15	
		1-24-1					1-1101-	
Thickness (mm)	<u>→</u>	15	15				15	
Dimensions (mm)	k J	600 × 600	600 × 6				00 × 600	
	1	610 × 610 625 × 625	610 × 6 625 × 6				L0 × 610 25 × 625	
		1200 × 600	025 × 0	023		02	25 × 025	
		1220×610						
		1250 × 625						
System	11	Exposed demountable - System C						
Weight	O kg \	2.9 kg/m²						
Colour								
Cotoui								
		White						
Sound absorption		EN ISO 354 α <sub>w</sub> = <b>0.80 (H)</b> as per EN	SO 11654 - <b>Class B</b>					
50a.ia a.550. p.a.6	<b>₹</b>	Frequency f (Hz)	125	250	500	1000	2000	4000
		$\mathfrak{a}_{\mathtt{p}}$	0.55	0.75	0.80	0.75	0.95	1.00
		NRC = <b>0.85</b> as per ASTM C 423						
Sound attenuation	₹	EN ISO 10848-2						
	劉之	D <sub>n,f,w</sub> = <b>28 dB</b> as per EN ISO 717-1	CAC =	= <b>29 dB</b> as	per ASTM	E 413-10		
Sound reduction	<b></b>	EN ISO 10140-2						
	<del>**</del>	$R_{\rm w} = 13  \rm dB$ as per EN ISO 717-1						
Fire reaction	8	Euroclass <b>A2-s1, d0</b> as per EN 1350. <b>Class A</b> as per ASTM E 84	l-1					
Light reflectance		87%						
-	Ģ: <sub>γ</sub>							
Thermal conductivity		λ = <b>0.040 W/mK</b> as per EN 12667						
I le maidite e va sista a sa		050/ BH						
Humidity resistance	00	95% RH						
Clean room		<b>ISO 4</b> as per EN ISO 14644-1						
	**	-						
Risk level		Zone 4 (Very High Risk) as per NF S 9	0-351:2013					
Microbiological Cleanliness		<b>M1</b> as per NF S 90-351:2013						
Kinetics of particle		<b>CP</b> <sub>(0.5)</sub> <b>5</b> as per NF S 90-351:2013						
decontamination		C. (0,5) as per in 3 / 5 / 5 / 5 / 5 / 5 / 5 / 5 / 5 / 5 /						
Indoor air quality		ada AIR COMP						
	<b></b>	€ curofins a gold E						
		A-ABC EN 13964						
Cleanability /		A+ E1 IACG						
Cleanability / Sustainability		560 560	BIOSOLUBLE WOOL					
			EC 1272/2008 Annex Q					
		EN ISO 14021 48%	EC 12/2/JUUS ANNEX Q					
Anti-microbial		Tested against: Escherichia coli, Staph	ylococcus aureus, Ca	ndida albi	cans, Aspe	rgillus nige	r	
characteristics	W.							

87

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 Plain



HYGENA Plain offers a white, smooth surface that creates and 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 reflectance
- Complies with Zone 4 risk requirements (NF S 90-351:2013)
- Ideal for healthcare environments and laboratories

### **HYGENA Plain**



Characteristic		Detailed information							
Edge details	<b></b>	Board		Tegular	24		Te	gular 15	
				D				7	
		24		∞ <u>24</u>			a	15	
Thickness (mm)	<b>1</b>	15		15				15	
	<u>↓</u>								
Dimensions (mm)	<b>←→</b>	600 × 600 610 × 610		600 × 6	00		60	00 × 600	
		1200 × 600							
		1220×610							
System	11	Exposed demountable - System C							
Weight	O kg \	3.8 kg/m²							
Colour									
		White							
Sound absorption	$\overline{\sim}$	EN ISO 354 $\alpha_{\rm w} = 0.20$ (L) as per EN	SO 11654 - <b>Cla</b>		250	500	1000	2000	/ 000
	<b>製</b> プ	Frequency f (Hz) α,		<b>125</b> 0.45	<b>250</b> 0.25	<b>500</b> 0.15	<b>1000</b> 0.15	<b>2000</b> 0.20	<b>4000</b> 0.25
		NRC = <b>0.20</b> as per ASTM C 423		05	0.23	0.20	0.23	0.20	0.20
Sound attenuation	<b>₹</b>	EN ISO 10848-2					- (17 10		
	2012	D <sub>n,f,w</sub> = <b>34 dB</b> as per EN ISO 717-1		CAC =	<b>36 dB</b> as p	oer ASTM	E 413-10		
Sound reduction	薬	EN ISO 10140-2 R <sub>w</sub> = <b>21 dB</b> as per EN ISO 717-1							
Fire reaction	<u>\delta</u>	Euroclass <b>A2-s1, d0</b> as per EN 1350 <b>Class A</b> as per ASTM E 84	1-1						
Light reflectance	Ö÷,⁄ν	87%							
Thermal conductivity		λ = <b>0.060 W/mK</b> as per EN 12667							
Air permeability	717	<b>PM1</b> (≤ 30 m³/hm²) as per DIN 181	77						
Humidity resistance	00	95% RH							
Clean room	*	ISO 4 as per EN ISO 14644-1							
Risk level		Zone 4 (Very High Risk) as per NF S 9	0-351:2013						
Microbiological Cleanliness		<b>M1</b> as per NF S 90-351:2013							
Kinetics of particle decontamination		<b>CP</b> <sub>(0,5)</sub> <b>5</b> as per NF S 90-351:2013							
Indoor air quality	<b></b>	MAISIC EN 13964  A+ E1 IACG							
Cleanability / Sustainability		FIND CONTROL C	BIOSOLUBLE WOOL  EC 1272/2008 Annex G						
Anti-microbial characteristics	Sept.	Tested against: Escherichia coli, Stapi	hylococcus au	reus, Ca	ndida albic	ans, Aspe	rgillus nige	r	

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 TOPIQ® Alpha 15



HYGENA TOPIQ® Alpha 15 is a lightweight and easy-to-install mineral acoustic ceiling tile made of stone wool with a smooth laminated surface appearance. The surface is washable and antimicrobial.

- Limits the growth of bacteria and fungi
- Cleanable with dry, damp, and wet cloth
- Ideal solution for high humidity areas of up to 100% RH
- Complies with Zone 4 risk requirements according to NF S 90-351:2013
- Excellent sound absorption class A
- Ideal choice for healthcare facilities, the food industry, laboratories or kitchens





Characteristics		Detailed information						
Edge details	0.0	Board	Tegular 2	4/90		Tegi	ular 15/90	)
		<u> </u>	Û 24			α	15	
Thickness (mm)	<u>↓</u>	15	15				15	
Dimensions (mm)	<b> ←→ </b>	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 6 625 x 6 1200 x 1250 x	600		6: 12	00 x 600 25 x 625 00 x 600 250 x 625	
System	11	Exposed demountable - System C						
Weight	kg	2.0 kg / m <sup>2</sup>						
Colour		White						
Sound absorption		EN ISO 354 $\alpha_{\rm w} = 0.95$ as per EN ISO						
	<b>%</b>	Frequency f (Hz)	125	250	500	1000	2000	4000
		α <sub>p</sub> NRC = <b>0.90</b> as per ASTM C 423	0.40	0.90	0.95	0.90	0.95	1.00
Sound attenuation	<b>₹</b>	EN ISO 10848-2 D <sub>n,f,w</sub> = <b>24 dB</b> as per EN ISO 717-1	CAC =	= <b>25 dB</b> as	per ASTM	E 413-10		
Sound reduction	季	EN ISO 10140-2 R <sub>w</sub> = <b>12 dB</b> as per EN ISO 717-1						
Fire reaction	$\overline{\Diamond}$	Euroclass <b>A1</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance	ŘΣ	86%						
Humidity resistance	00	100% RH						
Clean room	*	Class <b>ISO 5</b> as per EN ISO 14644-1						
Risk level		Zone 4 (Very High Risk) as per NF S 9	0-351:2013					
Microbiological cleanliness		<b>M1</b> as per NF S 90-351:2013						
Kinetics of particle decontamination		<b>CP</b> <sub>(0.5)</sub> <b>5</b> as per NF S 90-351:2013						
Indoor air quality	<b></b>	MALSIC EN 13964  A+ E1 IACG						
Cleanability		<b>19 19 27</b>						
Sustainability		10.1-10.4% (2024)						
Anti-microbial characteristics		Tested against: Escherichia coli, Stap	hylococcus aureus, Co	ındida albi	cans, Aspe	rgillus bras	siliensis	

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 www.knauf.com.

### HYGENA TOPIQ® Alpha 20



HYGENA TOPIQ® Alpha 20 is a lightweight and easy-to-install mineral acoustic ceiling tile made of stone wool with a smooth laminated surface appearance. The surface is washable and antimicrobial.

- Limits the growth of bacteria and fungi
- Cleanable with dry, damp, and wet cloth
- Ideal solution for high humidity areas of up to 100% RH
- Complies with Zone 4 risk requirements according to NF S 90-351:2013
- Excellent sound absorption class A
- Ideal choice for healthcare facilities, the food industry, laboratories or kitchens





Characteristics		Detailed information									
Edge details	<b>0</b> 50	Board	Tegular 2	4/90		Teg	ular 15/9	D			
		Î	<u>0</u> 24			a	15				
Thickness (mm)	<u>↓</u>	20	20				20				
Dimensions (mm)	$ \longleftrightarrow $	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 6 625 x 6 1200 x 6 1250 x 6	525 600		6 12	00 x 600 25 x 625 200 x 600 250 x 625				
System	11	Exposed demountable - System C									
Weight	kg	2.6 kg / m²									
Colour		White									
Sound absorption	$\overline{\mathcal{A}}$	EN ISO 354 $\alpha_{\rm w}$ = <b>1.00</b> as per EN ISO 3									
	$\mathscr{U}_{\mathcal{L}}$	Frequency f (Hz)	125	250	500	1000	2000	4000			
		α <sub>p</sub> NRC = <b>0.95</b> as per ASTM C 423	0.55	0.95	1.00	0.90	1.00	1.00			
Sound attenuation	<b>₹</b>	EN ISO 10848-2 D <sub>n.f.w</sub> = <b>27 dB</b> as per EN ISO 717-1									
Sound reduction	季	EN ISO 10140-2 R <sub>w</sub> = <b>13 dB</b> as per EN ISO 717-1									
Fire reaction	$\overline{\Diamond}$	Euroclass <b>A1</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84									
Light reflectance	<u>Α̈́ς</u>	86%									
Humidity resistance	00	100% RH									
Clean room	*	Class <b>ISO 4</b> as per EN ISO 14644-1									
Risk level		Zone 4 (Very High Risk) as per NF S 9	0-351:2013								
Microbiological cleanliness		<b>M1</b> as per NF S 90-351:2013									
Kinetics of particle decontamination		<b>CP</b> <sub>(0.5)</sub> <b>5</b> as per NF S 90-351:2013									
Indoor air quality		A+ E1 IACG									
Cleanability											
Sustainability		10.8% (2024)									
Anti-microbial			sted against: Escherichia coli, Staphylococcus aureus, Candida albicans, Aspergillus brasiliensis								

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 www.knauf.com.

# AMF THERMATEX® Aquatec



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 α<sub>w</sub>)
- 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	00	Board	Tegular 24/90	Teg	ular 15/9	0		Finesse	
		24	Û 24	I	15		24	100	
Thickness (mm)	<u>↓</u>	19	19		19			19	
Dimensions (mm)	$ \longleftrightarrow $	600 × 600 625 × 625	600 × 600 625 × 625		600 × 600 625 × 625			600 × 600 625 × 625	
System	11	Exposed demountable - Sy	ystem C	1			Concealed, System A.2		ble -
Weight	O kg	5.2 kg/m²					I		
Colour		White							
Sound absorption			as per EN ISO 11654 - <b>Cla</b>	1					
	<b>₩</b> ⁄	Frequency f (Hz) α <sub>p</sub>		<b>125</b> 0.60	<b>250</b> 0.70	<b>500</b> 0.85	<b>1000</b> 0.90	<b>2000</b> 1.00	1.00
		NRC = <b>0.90</b> as per ASTM C 423	3	0.00	0.70	0.03	0.70	1.00	1.00
Sound attenuation	<b>₹</b>	EN ISO 10848-2 D <sub>n,f,w</sub> = <b>29 dB</b> as per EN IS	0 717-1		CAC	= 29 dE	as per ASTM	E 413-10	
Sound reduction	華	EN ISO 10140-2 R <sub>w</sub> = <b>16 dB</b> as per EN ISO	717-1						
Fire reaction	8	Euroclass <b>A2-s1</b> , <b>d0</b> as p <b>Class A</b> as per ASTM E 84			RUS	KM1 (6	i1, V1, D1, T1	.) as per 12	:3-FZ
Light reflectance	ŘΣ	88%							
Thermal conductivity		λ = <b>0.060 W/mk</b> as per E	N 12667						
Air permeability	7/7	<b>PM1</b> (≤ 30 m³/hm²) as pe	er DIN 18177						
Humidity resistance	00	100% RH							
Clean room	*	<b>ISO 3</b> as per EN ISO 1464	44-1						
Indoor air quality	<b></b>	A+ E1	Curofine Cur						
Cleanability		<u></u>	<b>7</b>						
Sustainability		4 E	BIOSOCURIE WOOL  EC:1372/2008 Annex O  WWW,Diauer-er	igel.de/uz132					

95

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

**Build on us.** 



### **NEWTONE**



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

**NEWTONE** 



Characteristic		Detailed in	nformation	1							
Edge details	0-0	Board									
Additional edge details on request		24									
Thickness (mm)	<u>↓</u>	6									
Dimensions (mm)	$ \leftarrow $	600 × 600									
System	11	Exposed de	mountable	- System C							
Weight	kg	8.0 kg/m²									
Colour		White									
Sound absorption		EN ISO 354		. <b>10(L)</b> as per EN	NISO 11654 - <b>C</b>						
	<b>₹</b>	Frequency f (I	Hz)			<b>125</b> 0.25	<b>250</b> 0.15	<b>500</b> 0.10	<b>1000</b> 0.10	<b>2000</b> 0.10	<b>4000</b> 0.05
		NRC = <b>0.10</b> as	s per ASTM C	423		0.20	0.23	0.10	0.10	0.20	0.00
Sound attenuation	**	EN ISO 108 D <sub>n,f,w</sub> = <b>37 d</b>		ISO 717-1							
Fire reaction	8	Euroclass <b>A</b>	<b>1</b> as per EN	13501-1							
Light reflectance	<u>Ģ;√</u>	84%									
Humidity resistance	00	100% RH									
Indoor air quality	<b></b>	A+	EN 13964	Seurofins 2.							
Cleanability		<b>199</b>	<b>P</b>		10						

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.



# Smooth White Acoustic

# AMF THERMATEX® Acoustic



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) α<sub>w</sub>)
- Excellent sound attenuation: SL2 (40 dB)
- High sound attenuation: Board, Tegular, Vector, Finesse (38 dB)
- Excellent light reflectance (88%)
- ISO 4
- Ideal for retail, offices and meeting rooms, installation rooms or production areas





Characteristic		Detailed in	nformation								
Edge details	<b></b> -	Board	Tegular 24/90	Tegular 15/90		SL2		Vec	tor	Fine	esse
Additional edge details			24/90 P	P		Ŷ		Ŷ	ĵ	ĝ	
on request		134	∞ 24 <u>24</u>	15		24	 	25	4	24	-
		<u> </u>		<del></del>		24		-H <sub>1-3</sub>	' -H-3	-  -27-	€'
Thickness (mm)	<u>↓</u>	19	19	19		24		1	9	1	9
Dimensions (mm)	₩	600 × 600 625 × 625	600 × 600 625 × 625	600 × 600 1200 × 600		1200 × 3 1500 × 3		600 × 625 ×			< 600 < 625
		1200 × 600	1200 × 600	1200 × 000		1800 × 3	00	1200		1200	× 600
		1250 × 625				2000 × 3 2500 × 3				1250	× 625
System	0.0	Evnocod dor	nountable - S	victom C	Somi	-conceale	d	Semi-conc	oalod	Conceale	d
System	11	Lxposed dei	ilouritable - 5	ystem C	planl	cs, demou		tiles, demo		demount	able -
					-	m I.3 -conceale	d	System C		System A	.2/A.3
						ks - Bandr Juntable -S					
					Semi	-conceale	d planks				
						ridor, dem tem F.2	ountable				
Weight	(kg)	5.0 - 8.6 kg	g/m²								
Colour	<b>A</b>										
	<b>W</b>	White									
Sound absorption	<b>₹</b>	EN ISO 354		(H) as per EN ISO 11	654 - <b>C</b>						
	201	Frequency f ( α <sub>p</sub> Board, Te		gular 15/90, Finesse	, SL2	<b>125</b> 0.50	<b>250</b> 0.45	<b>500</b> 0.60	<b>1000</b> 0.85	<b>2000</b> 0.95	<b>4000</b> 0.95
		α <sub>p</sub> Vector	ACTN 6 ( 2)	-		0.45	0.40	0.60	0.80	0.90	1.00
Sound attenuation		EN ISO 108	s per ASTM C 42 348–2	5							
	劉之	D <sub>n.f.w</sub> = <b>38</b> d	<b>B</b> (Board, Tegi	ular 24/90	ICO 71	7 1		<b>9 dB</b> (Board			
				inesse) as per EN   EN ISO 717-1	150 / 1	7-1	15/90,	Vector, Fine	sse) as per	ASTM E 41	.5-10
Sound reduction	華	EN ISO 101 R <sub>w</sub> = <b>22 dB</b>	L40-2 as per EN ISC	717-1							
Fire reaction	8		<b>.2-s1, d0</b> as p per ASTM E 84	er EN 13501-1 4							
Light reflectance	ŘΣ	88%									
Thermal conductivity		λ = 0.060 \	<b>N/mk</b> as per E	EN 12667							
Air permeability	₹1₹	<b>PM1</b> (≤ 30	m³/hm²) as p	er DIN 18177							
Humidity resistance	00	95% RH									
Clean room	**	ISO 4 as pe	r EN ISO 1464	44-1							
Indoor air quality	<b></b>			OOR AUR COMPANY							
		A+ABC	EN 13964	IACG							
Cleanability/ Sustainability		<del>-</del>	<del>-</del> -	<b>4</b> 5	EPD	BIOSOLUBLE W	DOL	CERTIFIED			
วนรเลแIdDILILY		(1)	Control of the contro	EN ISO 14021 35 - 36.9%	EPD N 15804	EC 1272/2008 Ann	) ~°	cradle to cradle			

Product availability may vary by country. Please contact your local sales representative.

100

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 attenuation.

- Excellent sound absorption (0.90 α<sub>w</sub>)
- Good sound attenuation (34 dB)
- High sound attenuation: Board, Tegular, Vector, Finesse (38 dB)
- Excellent light reflectance (88%)
- ISO 4
- $\blacksquare \qquad \mathsf{Ideal} \ \mathsf{for} \ \mathsf{offices}, \mathsf{classrooms}, \mathsf{learning} \ \mathsf{applications} \ \mathsf{and} \ \mathsf{corridors}$

**AMF THERMATEX® Alpha** 



Characteristic		Detailed infor	rmation	1							
Edge details	<b>C</b> 70		Board Î			Tegular 2	4/90		Teg	ûlar 15/90	)
Thickness (mm)	<b>→</b>		19			19				19	
Dimensions (mm)	₩	625 120	0 × 600 5 × 625 0 × 600 0 × 625			600 × 6 625 × 6 1200 × 6	25		6	00 × 600 25 × 625 200 × 600	
System	11	Exposed demou	ntable -	System C				,			
Weight	O kg	3.3 kg/m <sup>2</sup>									
Colour		White									
Sound absorption	<b>₹</b>	EN ISO 354	a <sub>w</sub> = <b>0.9</b>	<b>95</b> as per EN IS	60 11654 - <b>Cl</b> a	ss A					
	201	Frequency f (Hz)				125	250	500	1000	2000	4000
		α <sub>p</sub> NRC = <b>0.90</b> as per	ASTM C 4	-23		0.50	0.80	0.90	0.90	1.00	1.00
Sound attenuation	<b>₹</b>	EN ISO 10848- D <sub>n,f,w</sub> = <b>28 dB</b> as	-2			CAC =	<b>29 dB</b> as	per ASTM I	E 413-10		
Fire reaction	8	Euroclass <b>A2-s</b> <b>Class A</b> as per A			501-1						
Light reflectance	Ω̈́.	88%									
Thermal conductivity		λ = 0.040 W/n	<b>nk</b> as per	r EN 12667	1						
Air permeability	717	<b>PM1</b> (≤ 30 m³/	/hm²) as	per DIN 18	177						
Humidity resistance	٥٥	95% RH									
Clean room	*	<b>ISO 4</b> as per EN	I ISO 14	644-1							
Indoor air quality	<b></b>	A+	N 13964 E1	GOLD PROFILE P							
Cleanability			<b>19</b> 0								
Sustainability			EPD EN 15804	BIOSOLUBLE WOOL  EC 1272/2008 Annex Q	SE M1> SE STAN ON CLASS SE STAN ON CLASS SE SE STAN ON CLASS SE S	CERTIFED cradle to cradle seonze		lauer-engel.de/uz	132		

Product availability may vary by country. Please contact your local sales representative.

For further information and legal notice, please visit our website.

**Build on us.** 

### AMF THERMATEX® Alpha Colour





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 α<sub>w</sub>)

104

 Ideal for offices, restaurants, cinemas, classrooms and learning applications

**Build on us.** 

### AMF THERMATEX® Alpha Colour



Characteristic		Detaile	d inform	ation								
Edge details	00	Board										
Additional edge details on request		Î										
Thickness (mm)	<u>↓</u>	19										
Dimensions (mm)	₩	600 × 60 610 × 61 625 × 62	LO			1200 × 6 1220 × 6 1250 × 6	510					
System		Exposed	demounta	able - Sys	tem C							
Weight	O kg	3.3 kg/i	m²									
Colour					<b>™</b> Var	io Design	Colours					
	ΘV.											
		Black	Silver	Cream	Granite	Steel	Green Marble	Copper	Oak	Brass	Sand- stone	Concrete
Sound absorption	<b>₹</b>	EN ISO 35		α <sub>w</sub> = <b>1.00</b> as α <sub>w</sub> = <b>0.95</b> as	s per EN ISO 1 s per EN ISO 1	.1654 - Clas .1654 - Clas	s A (Black) s A (other cold	ours)				
	41.0	Frequency α <sub>p</sub> Black					<b>125</b> 0.45	<b>250</b> 0.80	<b>500</b> 0.95	<b>1000</b> 0.95	<b>2000</b> 1.00	<b>4000</b> 1.00
		и <sub>р</sub> выск					0.45	0.80	0.95	0.95	1.00	1.00
		Frequenc					125	250	500	1000	2000	4000
		α <sub>p</sub> Other	colours O as per AS	TM C / 27			0.50	0.80	0.90	0.90	1.00	1.00
Sound attenuation	<b>₹</b>	EN ISO 1	10848-2 <b>8 dB</b> as p		717-1			CAC = <b>2</b>	<b>9 dB</b> as p	er ASTM E	413-10	
Sound reduction	薬		L0140-2 <b>dB</b> as per	EN ISO 7	'17-1							
Fire reaction	8	Euroclas	ss <b>A2-s1</b> ,	<b>d0</b> as per	EN 13501	L-1		RUS KM	11 (G1, V	<b>1, D1, T1)</b> a	s per 123	-FZ
Thermal conductivity		λ = 0.04	0 W/mk	as per EN	12667							
Air permeability	₹/₹	PM1 (≤	30 m³/hn	n²) as per	DIN 1817	7						
Humidity resistance	00	95% RF	1									
Indoor air quality	<b></b>	A*ABC	EN 13									
Cleanability		<u></u>	<b>®</b>	<b>8</b>								
Sustainability		(A) (A) (EN ISO 14021	EP EN 15	7 (	SOLUBLE WOOL  272/2006 Annex Q	M1>RB	CERTIFIED Cradle to cradle to cradle	www.bla	auer-engel.de/u	z132 )		

105

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

# AMF THERMATEX® Alpha HD 19mm



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

106

Ideal for offices, classrooms and corridors

**Build on us.** 

### AMF THERMATEX® Alpha HD 19mm



Characteristic		Detailed in	nformation							
Edge details	<b>070</b>	Board	Tegular 24/90	Tegular 15/90		SL2			Finesse	
		1-24-1	24	15	18			9	24 9	
Thickness (mm)	<u>↓</u>	19	19	19		19			19	
Dimensions (mm)	<b>├</b> →	1200 × 600 1250 × 625 1500 × 600	600 × 600 625 × 625 675 × 675 1200 × 300 1200 × 600 1250 × 625 1500 × 600 1800 × 600	600 × 600 625 × 625 675 × 675 1200 × 300 1200 × 600 1250 × 625 1350 × 300 1350 × 600 1500 × 600 1800 × 600	135 150 180	50 × 300 50 × 600 00 × 300 00 × 300 00 × 300			600 × 600 625 × 625 1200 × 600 1250 × 625	
System	11	Exposed der System C	nountable –	Exposed, demountable - System C Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable - System F.3	System I.: Semi-con Bandrasti demounta Semi-con	emountable 3 cealed plan er, ible - Systen cealed plan , demounta	ks - n I.2 ks	Concealed System A.2	,demountable 2 / A.3	1-
Weight	kg	5.2 kg/m²								
Colour		White								
ound absorption	<u>₩</u>	EN ISO 354  Frequency f ( α <sub>p</sub>	w	as per EN ISO 11654 - Clas	125 0.50	<b>250</b> 0.70	<b>50</b>			<b>4000</b> 1.00
Sound attenuation	<b>₹</b>	EN ISO 108				CAC =	35 c	<b>IB</b> as per AS	STM E 413-10	0
Sound reduction	季	EN ISO 101								
ire reaction	8	Euroclass <b>A</b>	<b>2-s1, d0</b> as p	er EN 13501-1						
ight reflectance	Ā;√	88%								
Thermal conductivity		λ = 0.060 \	<b>N/mk</b> as per E	EN 12667						
Air permeability	717	<b>PM1</b> (≤ 30	m³/hm²) as p	er DIN 18177						
Humidity resistance	00	95% RH								
Clean room		ISO 4 as pe	r EN ISO 146	44-1						
ndoor air quality	<b></b>	A+ABC	EN 13964	IACG						
Cleanability / Sustainability		<b>199</b>	<u></u>	EN 15804 49.1%	BIOSOLUBLE EC 12772/2008 A	)	1) REGISTER	CERTIFIED  cradle to cradle  seonze	www.blauer-	engeLde/uz13

107

# AMF THERMATEX® Alpha HD 30mm



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 α<sub>w</sub>)
- Excellent sound attenuation (40 dB)
- Excellent light reflectance (88%)
- ISO 4

108

Ideal for offices, classrooms and learning applications

**Build on us.** 

### **AMF THERMATEX® Alpha HD 30mm**



Characteristic		Detailed in	formation							
Edge details	0.0	Board	Tegular 24/90	Tegular 15/90		SL2			Finesse	
Additional edge details on request		Î	Û 24	15		E 18		£ 23	4 0	
Thickness (mm)	<u>↓</u>	30	30	30		30		·	30	
Dimensions (mm)	<b>←→</b>	600 × 600 625 × 625 675 × 675 1200 × 600 1250 × 625	600 × 600 625 × 625 675 × 675 1200 × 600 1250 × 625	600 × 600 625 × 625 675 × 675 1200 × 600 1250 × 625 1350 × 300 1350 × 600		1350 × 3 1350 × 6 1500 × 3 1800 × 3 2000 × 3	500 300 300	:	600 × 600 625 × 625 1200 × 60 1250 × 62	; 0
System	11	Exposed dem System C	nountable -	Exposed, demountable - System C Exposed - Bandraste demountable - System I.3 Exposed - Corridor, demountable - System F.3	dei Sei Ba - S Sei Co	mi-conceale mountable - mi-conceale indraster, der System I.2 mi-conceale rridor, demo stem F.2	System I.3 d planks - mountable d planks -	Conceale System A	ed,demoun A.2 / A.3	table -
Weight	(kg)	8.2 kg/m²								
Colour		White								
Sound absorption	<b>₹</b>	EN ISO 354  Frequency f (F		EN ISO 11654 - <b>Class A</b>	125	250	500	1000	2000	4000
		α <sub>p</sub> NRC = <b>0.90</b> as	per ASTM C 423		0.55	0.70	0.85	1.00	1.00	1.00
Sound attenuation	<b>₹</b>	EN ISO 108	-	7-1			CAC = <b>41</b> d	<b>B</b> as per A	STM E 413	5-10
Sound reduction	華	EN ISO 101 R <sub>w</sub> = <b>22 dB</b>	40-2 as per EN ISO 717	-1						
Fire reaction	8	Euroclass <b>A</b>	<b>2-s1, d0</b> as per EN	13501-1						
Light reflectance	Ģ:√	88%								
Thermal conductivity		λ = <b>0.060</b> V	V/mk as per EN 12	667						
Air permeability	717	_	m³/hm²) as per DIN	I 18177						
Humidity resistance	00	95% RH								
Clean room	*	ISO 4 as per	EN ISO 14644-1							
Indoor air quality	<b></b>	A*ABC	EN 13964 E1 IAC	ROOL						
Cleanability		<u></u>	<b>1900</b>							
Sustainability		6% EN ISO 14021 49.9%	EN 15804 BIOSOLUBLE C 1272/2008	9 SIM1> SOR BUILD	CERTIFIE Cradle to Cra	adle	lauer-engel.de/uz1	32		

109

# AMF THERMATEX® Alpha HD 35mm



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 α<sub>w</sub>)
- 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	1							
Edge details		Board	Tegular 24	4/90	Teg	ular 15/9	0		SL2	
Additional edge details on request	<b>6</b> 70	124	<u>0</u>			15			8	
Thickness (mm)	<u>↓</u>	35	35			35			35	
Dimensions (mm)	$ \longleftarrow $	600×600 625×625 1200×600 1250×625	600 × 6 625 × 6 1200 × 6 1250 × 6	25 600	1 1 1	600 × 600 625 × 625 200 × 600 250 × 625 .350 × 300 350 × 600	) 5 0	1 1 1	350 × 300 350 × 600 500 × 300 800 × 300 000 × 300	
System	11	Exposed demountable -	System C		System ( Exposed demount Exposed	, demounta - Bandras: table - Sys - Corridor, table -Syst	ter, tem I.3	Semi-conco demountab Semi-conco Bandraster System I.2 Semi-conco Corridor, de F.2	le – System ealed plank , demounta ealed plank	I.3 s - ble - s -
Weight	kg	9.5 kg/m²								
Colour		White								
Sound absorption		EN ISO 354 $\alpha_{\rm w} = 0$ .	<b>90</b> as per EN ISO 11	654 - <b>Cla</b> s	s A					
	<b>%</b>	Frequency f (Hz)			125	250	500	1000	2000	4000
		α <sub>p</sub> NRC = <b>0.85</b> as per ASTM C 4	423		0.40	0.65	0.85	1.00	1.00	1.00
Sound attenuation	<b>₹</b>	EN ISO 10848-2 D <sub>n,f,w</sub> = <b>42 dB</b> as per EN				CAC	= 44 dB	as per ASTM	E 413-10	
Sound reduction	<b>薬</b>	EN ISO 10140-2 R <sub>w</sub> = <b>25 dB</b> as per EN I	SO 717-1							
Fire reaction	8	Euroclass <b>A2-s1, d0</b> as	s per EN 13501-	1						
Light reflectance	<u>Ā;</u> ∑	88%								
Thermal conductivity		λ = <b>0.060 W/mk</b> as pe	r EN 12667							
Air permeability	717	<b>PM1</b> (≤ 30 m³/hm²) as	per DIN 18177							
Humidity resistance	00	95% RH								
Clean room	*	ISO 4 as per EN ISO 14	644-1							
Indoor air quality	<b></b>	A+ E1	Securofies  RACE  IACE							
Cleanability		<b>190</b>								
Sustainability		EN 15804  EN 15804		M1> 8 8 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	CERTIFIED  cradje to cradje		lauer-engel, de			

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

**Build on us.** 



# 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 α<sub>w</sub>)
- Excellent light reflectance (88%)
- ISO 4

112

Ideal for offices, classrooms and learning applications

AMF THERMATEX® Alpha One



Characteristic		Detailed infor	rmation								
Edge details	<b>07</b> 0		Board			Tegular 2	4/90		Tau	lar 15/90	
Thickness (mm)	<u>↓</u>		24			24				24	
Dimensions (mm)	<b>├</b>	625	0 × 600 5 × 625 00 × 600			600 × 6 625 × 6 1200 ×	25		6	00 × 600 25 × 625 200 × 600	
System	11	Exposed demou	ntable - S	system C							
Weight	O kg \	4.0 kg/m <sup>2</sup>									
Colour		White									
Sound absorption	<b>₹</b>	EN ISO 354	a <sub>w</sub> = <b>1.0</b> 0	as per EN ISO	11654 - <b>Clas</b>	s A					
	201	Frequency f (Hz)				125	250	500	1000	2000	4000
		α <sub>p</sub> NRC = <b>1.00</b> as per	ASTM C 42	.3		0.55	0.85	1.00	0.95	1.00	1.00
Sound attenuation	数	EN ISO 10848- D <sub>n,f,w</sub> = <b>29 dB</b> as	-2								
Sound reduction	季	EN ISO 10140- R <sub>w</sub> = <b>17 dB</b> as p		717-1							
Fire reaction	8	Euroclass <b>A2-s</b> <b>Class A</b> as per A			1-1						
Light reflectance	<u>Α̈́</u>	88%									
Thermal conductivity		λ = 0.040 W/m	<b>nk</b> as per	EN 12667							
Air permeability	₹1₹	<b>PM1</b> (≤ 30 m³/	/hm²) as p	er DIN 1817	77						
Humidity resistance	00	95% RH									
Clean room		<b>ISO 4</b> as per EN	I ISO 146	44-1							
Indoor air quality	<b></b>		N 13964 E1	AIR COMPANY OF THE PROPERTY OF							
Cleanability / Sustainability		<u></u>	<b>%</b>	EN ISO 14021	EPD EN 15804	BIOSOLUBLE V	) į M	ON CLASS 50 P.	CERTIFIED Cradle cradle to cradle	www.blauer-e	ngel.de/uz132

113

**Build on us.** 

### **AMF THERMATEX®** dB Acoustic

**Build on us.** 



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) α<sub>w</sub>)
- Excellent sound attenuation: 24mm thickness (41 dB) 30mm thickness (43 dB)
- Excellent light reflectance (88%)
- ISO 4
- Ideal for offices, meeting rooms, learning applications and corridors

### **AMF THERMATEX® dB Acoustic**



Characteristic		Detailed information							
Edge details	<b>6</b> 50	Board		Tegular	24		Te	gular 15	
Additional edge details on request				<u></u> 24			_ α	15	
Thickness (mm)	<u>↓</u>	24, 30		24				24	
Dimensions (mm)	$ \leftarrow $	600×600		600×6	00		60	00 × 600	
System	11	Exposed demountable - System C							
Weight	kg	8.6 - 10.6 kg/m²							
Colour		White							
Sound absorption	$\overline{\sim}$	EN ISO 354 α <sub>w</sub> = <b>0.65 (H)</b> as per EN	ISO 11654 - <b>C</b>		250	500	1000	2000	/ 000
	<b>製</b> /	Frequency f (Hz)  a, Board (24mm), Tegular 24, Tegular 15		<b>125</b> 0.40	<b>250</b> 0.45	<b>500</b> 0.60	0.80	<b>2000</b> 0.95	<b>4000</b> 0.95
		α <sub>p</sub> Board (30mm)  NRC = <b>0.70</b> as per ASTM C 423		0.35	0.40	0.65	0.85	0.90	0.95
Sound attenuation	<b>₹</b>	EN ISO 10848-2 D <sub>n.f.w</sub> = <b>41 dB</b> (24mm) as per EN ISO CAC = <b>43 dB</b> (24mm) as per ASTM E	717-1 413-10	D <sub>n,f,w</sub> =	<b>43 dB</b> (30	)mm) as p	er EN ISO 7	17-1	
Sound reduction	華	EN ISO 10140-2 R <sub>w</sub> = <b>24 dB</b> (24mm) as per EN ISO 71	L <b>7-1</b>	R <sub>w</sub> = <b>2</b>	. <b>5 dB</b> (30n	nm) as per	EN ISO 71	7-1	
Fire reaction	8	Euroclass <b>A2-s1, d0</b> as per EN 1350 <b>Class A</b> as per ASTM E 84	)1-1						
Light reflectance	Ω̈́	88%							
Thermal conductivity		λ = <b>0.075 W/mk</b> as per EN 12667							
Air permeability	₹1₹	<b>PM1</b> (≤ 30 m³/hm²) as per DIN 181	77						
Humidity resistance	00	95% RH							
Clean room	*	ISO 4 as per EN ISO 14644-1							
Indoor air quality	<b></b>	A+ E1 IACG							
Cleanability		<b>190</b>							
Sustainability		136.9 - 37%	SM1> SON CLASS S	CERTIFIED cradle to cradle to cradle	www.bl	auer-engel.de/u	z132 )		

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

### AMF THERMATEX® Thermofon



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) α<sub>w</sub>)
- Excellent light reflectance (88%)
- ISO 4

116

Ideal for offices, classrooms and learning applications

AMF THERMATEX® Thermofon

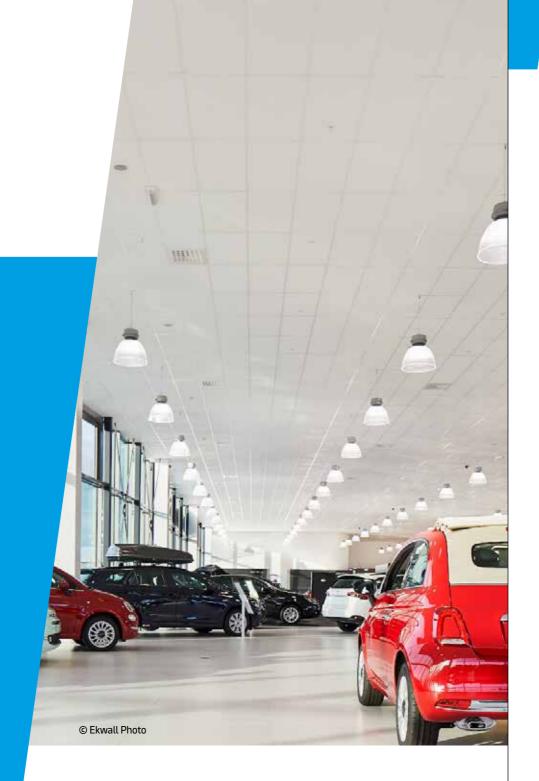
### KNAUF

Characteristic		Detailed in	nformation	1							
Edge details	<b>G</b> 50		Board			Tegular 2	4/90		Teg	ular 15/90	)
Additional edge details on request			Î			© 24			o	15	
Thickness (mm)	<u>↓</u>		15			15				15	
Dimensions (mm)	₩	1	600 × 600 625 × 625 1200 × 600 1250 × 625	)		600 × 6 625 × 6 1200 × 6	25		6	00 × 600 25 × 625 200 × 600	
System	11	Exposed den	nountable -	System C							
Weight	O kg	2.9 kg/m²									
Colour		White									
Sound absorption		EN ISO 354		<b>80 (H)</b> as per E	N ISO 11654 - 0	Class B					
, , , , , , , , , , , , , , , , , , ,	<b>*</b>	Frequency f (I	Hz)			125	250	500	1000	2000	4000
		α <sub>p</sub> NRC = <b>0.85</b> as	s per ASTM C	423		0.55	0.75	0.75	0.80	0.95	1.00
Sound attenuation	<b>₹</b>	EN ISO 108	348-2	ISO 717-1		CAC =	<b>29 dB</b> as	per ASTM I	E 413-10		
Sound reduction	華	EN ISO 101 R <sub>w</sub> = <b>13 dB</b>		50 717-1							
Fire reaction	8	Euroclass <b>A Class A</b> as p		s per EN 135 84	01-1	RUS <b>K</b> I	<b>М1 (G1, V</b>	1, D1, T1) a	as per 123	-FZ	
Light reflectance	ŘΣ	88%									
Thermal conductivity		λ = <b>0.040</b> V	<b>V/mk</b> as pe	r EN 12667							
Humidity resistance	00	95% RH									
Clean room	*	ISO 4 as pe	r EN ISO 14	644-1							
Indoor air quality	<b></b>	A+	EN 13964	GOLD FED PROBLEM							
Cleanability		<u></u>	<u></u>	100							
Sustainability		6% EN ISO 14021 42%	EN 15804	BIOSOLUBLE WOOL  EC 1272/2008 Annex Q	S. M1> S. B. S.	CERTIFIED Cradle to Cradle to Cradle SECONZE		lauer-engel.de/UZ	132		

117

**Build on us.** 

### TOPIQ® Alpha 15



TOPIQ $^{\circ}$  Alpha 15 is a lightweight and easy-to-install mineral acoustic ceiling tile made of stone wool with a smooth laminated surface appearance.

- Excellent sound absorption class A
- Fire reaction Euroclass A1
- Humidity resistance 100%
- High light reflectance 86%
- Ideal choice for office and education environments, as well as large open spaces.





Characteristic		Detailed information						
Edge details	<b>6-20</b>	Board	Tegular 2	4/90		Tegi	ılar 15/90	
		124	Û ∞ 24			α	Î	
Thickness (mm)	<u>↓</u>	15	15				15	
Dimensions (mm)	$ \leftarrow $	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 6 625 x 6 1200 x 1250 x	625 600		6: 12	00 x 600 25 x 625 00 x 600 50 x 625	
System	11	Exposed demountable - System C			,			
Weight	O kg	2.0 kg / m²						
Colour	<b>%</b>	White						
Sound absorption	<b>₹</b>	EN ISO 354 $\alpha_w = 0.95$ as per EN ISO		250	F00	1000	2000	4000
	<b>30 a</b>	Frequency f (Hz) α <sub>p</sub>	<b>125</b> 0.40	<b>250</b> 0.90	<b>500</b> 0.95	<b>1000</b> 0.90	<b>2000</b> 0.95	1.00
		NRC = <b>0.90</b> as per ASTM C 423	'		1			
Sound attenuation	<b>₹</b>	EN ISO 10848-2 D <sub>n.f.w</sub> = <b>24 dB</b> as per EN ISO 717-1	CAC =	= <b>25 dB</b> as	per ASTM	E 413-10		
Sound reduction	季	EN ISO 10140-2 R <sub>w</sub> = <b>12 dB</b> as per EN ISO 717-1						
Fire reaction	8	Euroclass <b>A1</b> as per EN 13501-1 Class <b>A</b> as per ASTM E 84						
Light reflectance	<u>Ā;</u>	86%						
Humidity resistance	00	100% RH						
Clean room	*	Class <b>ISO 5</b> as per EN ISO 14644-1						
Indoor air quality	<b></b>	A+ E1 IACG						
Cleanability		<b>190</b>						
Sustainability		10.1% (2024)	www.blauer-engel.de/uz132					

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

**Build on us.** 

### TOPIQ® Alpha 20



TOPIQ® Alpha 20 is a lightweight and easy-to-install mineral acoustic ceiling tile made of stone wool with a smooth laminated surface appearance

- Excellent sound absorption class A
- Fire reaction Euroclass A1
- Humidity resistance 100%
- High light reflectance 86%
- Ideal choice for office and education environments, as well as large open spaces.

### TOPIQ® Alpha 20



Characteristic		Detailed information						
Edge details	<b>0</b> 70	Board Î	Tegular 2	4/90		Tegi	ilar 15/90	)
Thickness (mm)	<u>↓</u>	20	20				20	
Dimensions (mm)	<del> </del>	600 x 600 625 x 625 1200 x 600 1250 x 625	600 x 6 625 x 6 1200 x 1250 x	625 600		6: 12	00 x 600 25 x 625 00 x 600 250 x 625	
System	11	Exposed demountable - System C			,			
Weight	kg	2.6 kg / m²						
Colour		White						
Sound absorption		EN ISO 354 $a_w = 1.00$ as per EN ISO						
	<b>₩</b> ⁄	Frequency f (Hz) α <sub>p</sub> NRC = <b>0.95</b> as per ASTM C 423	<b>125</b> 0.55	<b>250</b> 0.95	1.00	<b>1000</b> 0.90	1.00	1.00
Sound attenuation	**	EN ISO 10848-2 D <sub>n,f,w</sub> = <b>27 dB</b> as per EN ISO 717-1	CAC =	= <b>28 dB</b> as	per ASTM I	E 413-10		
Sound reduction	季	EN ISO 10140-2 R <sub>w</sub> = <b>13 dB</b> as per EN ISO 717-1						
Fire reaction	<b>6</b>	Euroclass <b>A1</b> as per EN 13501-1 <b>Class A</b> as per ASTM E 84						
Light reflectance	<u>Ģ</u> ;√	86%						
Humidity resistance	00	100% RH						
Clean room	ᄿ	Class <b>ISO 4</b> as per EN ISO 14644-1						
Indoor air quality	<b></b>	A+ E1 IACG						
Cleanability		<b>190</b>						
Sustainability		10.1% (2024)	www.hlauer-engel.de/uz132					

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

**Build on us.** 

### **ANTARIS**



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

- Excellent sound absorption (0.90 α<sub>w</sub>)
- High light reflectance (86%)
- ISO 5
- Ideal for retail, offices, meeting rooms, installation rooms and production areas

**ANTARIS** 



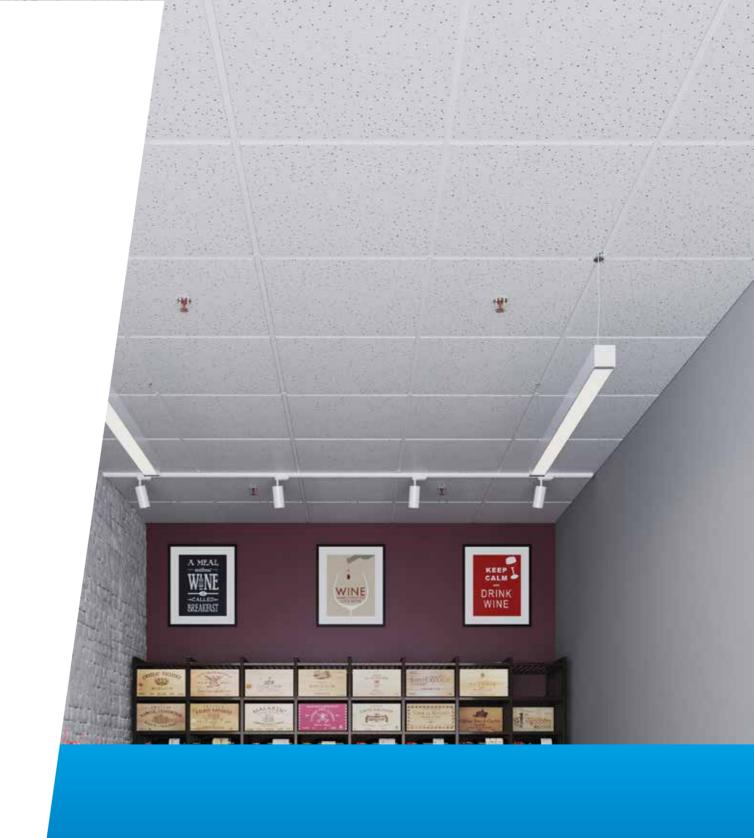
Characteristic		Detailed infor	mation	1							
Edge details	<u></u>	В	oard			Tegula	r 24/90		Teg	ular 15/90	)
Additional edge details on request			1 24 1			8	24			15	
Thickness (mm)	<u>↓</u>		15			1	.5			15	
Dimensions (mm)	$ \longleftrightarrow $	675	0 × 600 5 × 675 0 × 600	)		675	× 600 × 675 × 600		6	00 × 600 75 × 675 00 × 600	
System	11	Exposed demour	ntable -	System C	'			'			
Weight	O kg	2.9 kg/m²									
Colour		White									
Sound absorption		EN ISO 354	$\alpha_{\rm w} = 0.$	<b>90</b> as per EN IS	60 11654 - <b>C</b> l						
	<b>製</b> 之	Frequency f (Hz) α <sub>p</sub>				0.50	<b>250</b> 0.80	<b>500</b> 0.85	<b>1000</b> 0.85	<b>2000</b> 1.00	1.00
		NRC = <b>0.90</b> as per A	ASTM C 4	¥23		0.50	0.00	0.00	0.00	1.00	2.00
Sound attenuation	<b>₹</b>	EN ISO 10848- D <sub>n,f,w</sub> = <b>28 dB</b> as		ISO 717-1		CA	C = <b>29 dB</b> as	s per ASTM	E 413-10		
Sound reduction	華	EN ISO 10140- R <sub>w</sub> = <b>13 dB</b> as p		60 717-1							
Fire reaction	8	Euroclass <b>A2-s</b> 1 <b>Class A</b> as per A			501-1						
Light reflectance	ŘΣ	86%									
Thermal conductivity		λ = <b>0.040 W/</b> m	n <b>k</b> as pe	r EN 12667	,						
Humidity resistance	00	95% RH									
Clean room	*	ISO 5 as per EN	ISO 14	644-1							
Indoor air quality	<b></b>		13964 E1	GOLD FROM							
Cleanability		<b>I</b>	<b>%</b>	incu							
Sustainability		(d)/29 (L)	EPD N 15804	BIOSOLUBLE WOOL  EC 1272/2008 Annex Q	S.M1	www.b	auer-engel.de/uz13	2			

**Build on us.** 



### 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





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

- Good sound attenuation (34 dB)
- Good light reflectance (85%)

126

Ideal for retail, meeting rooms, installations rooms and production areas

**Build on us.** 

### **AMF THERMATEX® Feinstratos**



Characteristic		Detailed in	nformation								
Edge details	00	Board	Tegular 24	Tegular 15		Finesse	2	SL		K2	
Additional edge details on request		1, 24, 1	∞ 24	115		24		28			
Thickness (mm)	<u>↓</u>	15	15	15		19		19	9	1	5
Dimensions (mm)	<b> ←→ </b>	600 × 600							2000 × 312.5 2500 × 312.5		
System	11	Exposed - Bandraster, demountable - System I.3 Exposed - Corridor, demountable - System F.3  demountable - System A.2 / A.3  planks, demountable - System I.3 Semi-concealed planks - Bandraster, demountable - System I.2 Semi-concealed planks - Corridor, demountable - System F.2  planks, demountable - System I.3 Semi-concealed planks - Corridor, demountable - System F.2						mountable	on-de- e - System cealed andraster, ountable - cealed orridor, ountable -		
Weight	kg	3.8 - 5.0 kg	g/m²								
Colour		White									
Sound absorption		EN ISO 354		as per EN ISO 1165	4 - Clas		250		1000	2000	
	<b>₩</b> 2	Frequency f (I α <sub>p</sub> NRC = 0.15as		3		<b>125</b> 0.35	<b>250</b> 0.20	<b>500</b> 0.15	<b>1000</b> 0.15	0.20	0.20
Sound attenuation	<b>₹</b>	NRC = <b>0.15</b> as per ASTM C 423  EN ISO 10848-2 D <sub>n,f,w</sub> = <b>34 dB</b> (Board, Tegular 24, Tegular 15, K2C2) CAC = <b>35 dB</b> (Board, Tegular 24, Tegular 15, K2C2) CAC = <b>38 dB</b> (Finesse, SL2) as per EN ISO 717-1 CAC = <b>38 dB</b> (Finesse, SL2) as per ASTM E 413-10							717-1 413-10		
Sound reduction	季	EN ISO 101 R <sub>w</sub> = <b>21 dB</b>	.40-2 as per EN ISC	717-1							
Fire reaction	8	Euroclass <b>A2-s1</b> , <b>d0</b> as per EN 13501-1 RUS <b>KM1 (G1, V1, D1, T1)</b> as per 123-FZ						<u>.</u>			
Light reflectance	ŘŢ	85%									
Thermal conductivity		λ = <b>0.060 W/mk</b> as per EN 12667									
Humidity resistance	00	95% RH									
Indoor air quality	<b></b>	A+A B C	EN 13964 E1	Securofina Securofina IACG							
Cleanability/ Sustainability		<b>®</b>	<u></u>	(3) (50) (40)21 37-43%	EPD EN 15804	BIOSOLUBLE EC 1272/2008 /	WOOL James Q				

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

# AMF THERMATEX® Feinstratos Micro





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 a<sub>w</sub>)
- Good to high sound attenuation (34-38 dB)
- Good light reflectance (85%)

128

 Ideal for retail, offices, meeting rooms, installation rooms and production areas

**Build on us.** 

### **AMF THERMATEX® Feinstratos Micro**



Characteristic		Detailed in	nformation									
Edge details  Additional edge details on request	<b>0</b> *0	Board	Tegular 24	Tegular 15	01	Finesse	- <b>!</b> -	SL2		K2C2		
Thickness (mm)	<u>↓</u>	15,19	15, 19	15		19		19	)	15		
Dimensions (mm)	<b>←→</b>	600 × 600 625 × 625 1200 × 600 1250 × 625	625 × 625   625 × 625   625 × 625   625 × 625   1800 × 300   1200 × 600   1200 × 600   1200 × 600   2000 × 312,5							2000 × 312,5 2500 × 312,5		
System	0 0	Exposed demountable - System C				cealed, nountable tem A.2 / /		Semi-conceplanks, demountal System I.3 Semi-conceplanks - Bademountal System I.2 Semi-conceplanks - Codemountal System F.2	ole – ealed andraster, ole – ealed orridor, ole –	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	O kg	3.9 - 5.0 kg	3.9 - 5.0 kg/m <sup>2</sup>									
Colour		White										
Sound absorption	<u>₩</u>	EN ISO 354  Frequency f (I α <sub>p</sub> NRC = <b>0.60</b> as		as per EN ISO 11654	4 - Clas	125 0.50	<b>250</b> 0.50	<b>500</b> 0.55	<b>1000</b> 0.70	<b>2000</b> 0.65	<b>4000</b> 0.50	
Sound attenuation	***	EN ISO 108 D <sub>n,f,w</sub> = <b>34 d</b> D <sub>n,f,w</sub> = <b>38 d</b>	EN ISO 10848-2 D <sub>n,f,w</sub> = <b>34 dB</b> Board, Tegular 24, Tegular 15, K2C2 (15mm) as per EN ISO 717-1 D <sub>n,f,w</sub> = <b>38 dB</b> Board, Tegular 24, Finesse, SL2 (19mm) as per EN ISO 717-1 CAC = <b>35 dB</b> (15mm) CAC = <b>38 dB</b> (19mm) as per ASTM E 413-10									
Sound reduction	華		EN ISO 10140-2 R <sub>w</sub> = <b>21 dB</b> as per EN ISO 717-1									
Fire reaction	8		Euroclass <b>A2-s1</b> , <b>d0</b> as per EN 13501-1 RUS <b>KM1 (G1, V1, D1, T1)</b> as per 123-FZ <b>Class A</b> as per ASTM E 84									
Light reflectance	Ω̈́.	85%										
Thermal conductivity		λ = <b>0.060 W/mk</b> as per EN 12667										
Humidity resistance	00	95% RH										
Indoor air quality	<b></b>	A+ABC	EN 13964	SOLD TO PROPER PROPERTY OF THE								
Cleanability/ Sustainability		<u></u>	<u></u>	(A)	EPD EN 15804	BIOSOLUBLE EC 1272/2008 A	WOOL Annex Q					

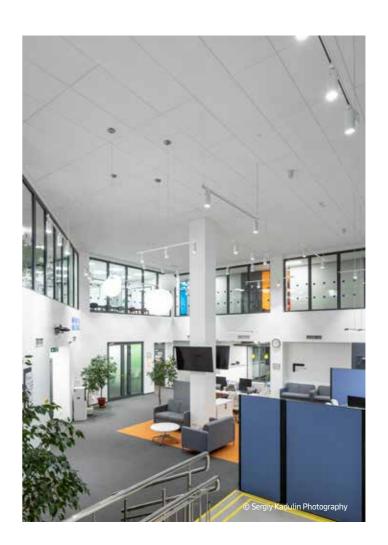
129



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.



### STAR 15mm





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

- Good sound absorption (0.60 a,)
- Good sound attenuation (34 dB)
- Excellent light reflectance (88%)

132

 Ideal for retail, offices, meeting rooms, installation rooms and production areas

### STAR 15mm



Characteristic		Detailed information								
Edge details	0-0	Board	Tegular 2	4	Т	egular 15			K2C2	2
Additional edge details on request						28				
Thickness (mm)	<u>↓</u>	15	15			15			15	
Dimensions (mm)	₩	600 × 600 625 × 625 1200 × 600	600 × 60 625 × 62 1200 × 60	5	6	00 × 600 25 × 625 200 ×600		2000 × 312,5 2500 × 312,5		
Additional sizes on request		1250 × 625 2500 × 300								
System	11	Exposed demountable - Sy Exposed - Bandraster, dem Exposed - Corridor, demour	ountable - System I.3					Semi-concealed planks, non-demount- able - System I.3		
Weight	kg	3.6 - 3.8 kg/m²					·			
Colour		White								
Sound absorption	$\overline{\sim}$	- 11	s per EN ISO 11654 - <b>Clas</b>		250	F00	100		2000	4000
Sourid absorption		Frequency f (Hz) α <sub>p</sub>		<b>125</b> 0.45	<b>250</b> 0.50	<b>500</b> 0.55	0.70	_	<b>2000</b> 0.65	<b>4000</b> 0.50
Sound attenuation	<b>₹</b>	NRC = <b>0.60</b> as per ASTM C 423  EN ISO 10848-2 D <sub>n.t.w</sub> = <b>34 dB</b> as per EN ISO 717-1  CAC = <b>35 dB</b> as per ASTM E 413-10								
Sound reduction	華	EN ISO 10140-2 R <sub>w</sub> = <b>21 dB</b> as per EN ISO 7	EN ISO 10140-2 R <sub>w</sub> = <b>21 dB</b> as per EN ISO 717-1							
Fire reaction	8	Euroclass <b>A2-s1, d0</b> as per <b>Class A</b> as per ASTM E 84	EN 13501-1							
Light reflectance	ŘΣ	88%								
Thermal conductivity		λ = <b>0.060 W/mk</b> as per EN	112667							
Humidity resistance	00	95% RH								
Indoor air quality	<b></b>	A+ E1 IACG								
Cleanability		<b>190 190</b>								
Sustainability		81050LUBUS WOOL \$1 505 Mage: 37 - 48%								

133

**Build on us.** 



# 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 a<sub>w</sub>)
- Good light reflectance (85%)

134

 Ideal for retail, offices, meeting rooms, installation rooms and production areas





Characteristic		Detailed information								
Edge details	0.0	Board	Tegular	Tegular 24			Tegular 15			
Additional edge details on request		124	Û 24 1	+			Û 15			
Thickness (mm)	<u>↓</u>	15	15				15			
Dimensions (mm)	$ \leftarrow $	600 × 600 1200 × 600	600×6	00		60	00 × 600			
System	11	Exposed demountable - System C			'					
Weight	O_kg\	3.6 - 3.8 kg/m²								
Colour		White								
Sound absorption			ISO 11654 - <b>Class C</b>			1				
-	<b>₩</b> 2	Frequency f (Hz)	125	250	500	1000	2000	4000		
		ap         0.45         0.40         0.50         0.70         0.70         0           NRC = <b>0.60</b> as per ASTM C 423					0.65			
Sound attenuation	黔	EN ISO 10848-2 D <sub>n,f,w</sub> = <b>32 dB</b> as per EN ISO 717-1 CAC = <b>32 dB</b> as per ASTM E 413-10								
Sound reduction	季	EN ISO 10140-2 R <sub>w</sub> = <b>21 dB</b> as per EN ISO 717-1								
Fire reaction	8	Euroclass <b>A2-s1, d0</b> as per EN 13 <b>Class A</b> as per ASTM E 84	5501-1	RUS <b>K</b>	M1 (G1, V	1, D1, T1) a	as per 123	-FZ		
Light reflectance	<u>Α΄</u>	85%								
Thermal conductivity		λ = <b>0.060 W/mk</b> as per EN 1266	7							
Humidity resistance	00	95% RH								
Indoor air quality	<b>→</b>	A+ E1 IACG								
Cleanability		<b>190</b>								
Sustainability		80050JUBLE WOOL ST - 48%								

**Build on us.** 

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

### 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) α<sub>w</sub>)
- High sound attenuation (32 dB)

136

 Ideal for retail, offices, meeting rooms, installation rooms and production areas





Characteristic		Detailed information								
Edge details	<u> </u>	Board		Tegular 24			Tegular 15			
Additional edge details on request		1 24	<u></u>				Û ∞ 15}			
Thickness (mm)	<u>↓</u>	15	15				15			
Dimensions (mm)	<b>├</b>	600 × 600 600 × 600 625 × 625 625 × 625 1200 × 600 1250 × 625								
System	11	Exposed demountable - System C			'					
Weight	O kg	3.6 - 3.8 kg/m²								
Colour		White								
Sound absorption			EN ISO 11654 - Class C							
Sourid absorption		Frequency f (Hz)	<b>125</b> 0.45	<b>250</b> 0.40	<b>500</b> 0.50	<b>1000</b> 0.70	<b>2000</b> 0.80	<b>4000</b> 0.75		
	,	α <sub>p</sub> NRC = <b>0.60</b> as per ASTM C 423	0.43	0.40	0.30	0.70	0.00	0.73		
Sound attenuation	<b>₹</b>	EN ISO 10848-2 D <sub>n,f,w</sub> = <b>32 dB (15 mm)</b> as per EN ISO 717-1 CAC = <b>32 dB</b> as per ASTM E 413-10								
Sound reduction	季	EN ISO 10140-2 Rw = <b>21 dB</b> as per EN ISO 717-1								
Fire reaction	$\overline{\Diamond}$	Euroclass <b>A2-s1, d0</b> as per EN 13501-1 RUS <b>KM1 (G1, V1, D1, T1</b> ) as per 123-FZ				-FZ				
Light reflectance	<u>Ř</u> ;∕	83%								
Thermal conductivity		λ = <b>0.060 W/mk</b> as per EN 1266	7							
Air permeability	₹1₹	<b>PM1</b> (≤ 30 m³/hm²) as per DIN 18177								
Humidity resistance	00	90% RH								
Indoor air quality	<b>₹</b>	A+ E1 IACG								
Cleanability										
Sustainability		80050LUBLE WOOL  ST 50 NGC 1  ST - 48%								

**Build on us.** 

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



### Fire Performance

### 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.



# Acoustic Technical Glossary

### Weighted sound absorption coefficient, $\alpha_{w}$

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  $\alpha_w$  will vary between 0.00 and 1.00 but is only expressed in multiples of 0.05, e.g.  $\alpha_w$  = 0.65.

### Weighted suspended ceiling normalised level difference, D<sub>ncw</sub>

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  $D_{nfw}$ ), although  $D_{ncw}$  test results still continue to be valid.

### Weighted suspended ceiling normalised flanking level difference, $\mathbf{D}_{\mathsf{nfw}}$

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  $D_{\text{ncw}}$ ).

### 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<sub>w</sub>

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

Sound Absorption Class	$\mathfrak{a}_{w}$
Α	0.90; 0.95; 1.00
В	0.80; 0.85
С	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,

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  $D_{n f w}$  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.

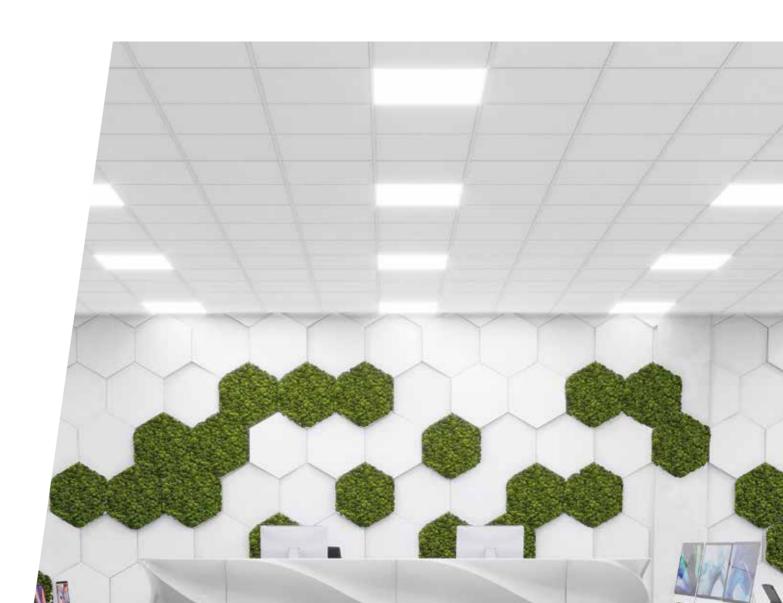
Hence the Equivalent Absorption Area per unit (measured in Sabines) is preferred to characterise the absorption provided by an individual 'space absorber'.

### **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 Definition of technical performance icons

### **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  $(\alpha_{\omega})$  or to ASTM C 423-01 (NRC).



#### **Sound Absorption Class**

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



#### **Sound Reduction**

**Recycled Content** 

VOC

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



product of reference.

The recycled content of the product, as

The VOC emission performance

in accordance with the French

labelling requirements.

Formaldehyde (E1)

test result possible).

calculated in accordance with ISO 14021.

Formaldehyde emission level (E1 = lowest

EPD (Environmental Product Declaration)

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

Cradle CERTIFIED®, providing a transparent

mechanism to compare the sustainability

they are designed for recycling and helping

to protect and to sustain our environment

in the economy for a longer period of time.

for future generations by keeping resources

performance of products, showing that

requirements of ISO 14025.

Cradle To Cradle CERTIFIED®

Products with this icon are Cradle to

Independently verified and registered



#### **Sound Attenuation**

Fire Reaction

as Euroclass (A1 - F).

**Light Reflectance** 

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

accordance with EN 13501-1 expressed

Reaction to fire classification in

Light reflection is the proportion of

incident light that is reflected back off



#### **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





### Weight

the product.

Weight per unit area of the product (kg/m²)

Indoor Air Comfort Gold

Higher level "Indoor Air Comfort GOLD

- Certified Product" shows additional

compliance of product emissions with

specifications issued by most relevant

ecolabels and similar specifications in

the EU an requirements for sustainable

are those with the best-in-class low

huilding certifications. Certified products

emissions, thus good for indoor air quality.

the critera of many of the voluntary



#### **Indoor Air Comfort**

Biosoluble Wool

Higher level "Indoor Air Comfort - Certified Product" shows additional compliance of product emissions with the critera 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.

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



#### **Indoor Air Quality**

certification ensures that all productrelated 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).



#### 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).



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.



#### **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



#### **Resistance to Disinfectant**

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



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 surfact 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.



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



#### Clean Room

Healthcare, pharmaceutics, 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.

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. Harmonised Product Standards respond to and how the performance must be communicated. For suspended ceilings

EN 13964 Suspended Ceilings – Requirements & Test Methods.

The essential requirements identified for suspended ceiling membranes

- Formaldehyde Emissions (mandatory)
- Flexural Tensile Strength / Durability

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 www.knauf.com.

#### Knauf Ceiling Solutions Ltd.

Harman House 1 George Street Uxbridge, UB8 1QQ United Kingdom

### www.knauf.com

 $info\_kcs\_UK@knauf.com$ 

