

YOUR PROJECT
OUR EXPERIENCE

Armstrong[®]
CEILING SOLUTIONS

HEALTHCARE RANGE

A proven formula
in healthcare ceilings



KNAUFCEILING
Solutions

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A proven formula has gone through rigorous testing procedures. It shows time and time again that something is effective and something is replicable. Every medicine is required to go through this relentless process, so healthcare facilities must work to the same exacting standards.

With the control of biocontamination and disinfection being paramount, Knauf Armstrong has developed a healthcare line that has been built on the dedication required to create a proven solution. We have improved and extended our range. Our new products are easily cleanable and provide impressive sound-absorbing and sound-blocking properties.

All of our tiles are built on hard-earned expertise. Proven for architects and end-users. Proven for healthcare environments.



MOVING FORWARD



INTRODUCTION

Healthcare environments are under constant scrutiny, going through continual changes to provide the best possible environments for both patients and healthcare professionals.

Through the implementation of major investment programmes, the standard of healthcare buildings, medical equipment, and patient care is going through constant refinement.

— Acoustic performance not only benefits patient and staff comfort, it also assists patient privacy through sound insulation between spaces.

— Natural daylight has numerous benefits in healthcare environments, such as reducing patient in-time. Shallow plan design, and the continuous plane of a suspended ceiling with high light reflectance, will enable natural light to penetrate far into a building, aiding both patients and staff.

— It is vital that healthcare environments meet rigorous safety standards. It needs to be safe and accessible for everyone, including those with limited mobility. It is also critical that all fire safety regulations are met.

— In healthcare premises it's crucial to focus on anti-microbial performance. With the presence of infectious agents and vulnerable patients, keeping the building as hygienic as possible is fundamental in preventing the spread of disease.



THREE MAIN CRITERIA

FRENCH STANDARD NF S 90-351:2013

The control of airborne contamination in healthcare premises is a growing concern, therefore the French Standard NF S 90-351:2013, probably the most stringent standard in Europe regarding healthcare premises, is in place to tackle this concern. Knauf Armstrong has undergone testing to ensure they demonstrate a high level of performance in this field.

This standard is a valuable tool that ensures maximum safety and high performance.

01

**CONTROL OF AIR
PARTICLE ISO CLASS**
tested against ISO 14644-1

Determines the concentration of particles emitted by the ceiling into the room.

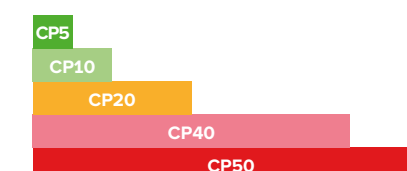


The lower the ISO rating, the less polluting the ceiling is.

02

**KINETICS OF PARTICLE
DECONTAMINATION**
expressed in CP (minutes)

Represent the time necessary to achieve 90% decontamination from an initial pollution peak.



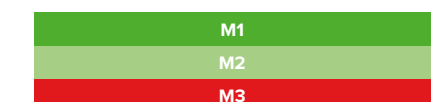
The shorter the time, the less the ceiling retains pollution.

03

**MICROBIOLOGICAL
CLEANLINESS**
classified by an index from 1 to 100

Certifies that the ceiling does not conduct the development of bacteria.

The bacteriological class (B) became the microbiological cleanliness class (M) in August 2013.



The lower the index, the more resistant the ceiling is to the proliferation of bacteria.

All tests results are available upon request. Contact us for more information.

HEALTHCARE RANGE PERFORMANCES

Ceilings in healthcare premises are chosen primarily on their performance and aesthetics. With the Knauf Armstrong healthcare range, we provide ceilings with anti-microbial, acoustic and cleaning properties. From reception areas and offices, to treatment rooms and operating theatres, we have a solution for every requirement.

Being a leader in sustainability and safety means complying with the strictest standards and certifications both domestically and across the globe. BioGuard Acoustic OP, BioGuard Acoustic, BioGuard Plain and SaniGuard, thanks to their very low VOC emissions, meet the highest standards within LEED® v4, BREEAM, AgBB, Blue Angel, as well as achieving A+ under the French VOC regulation.



BIOGUARD ACOUSTIC OP

BioGuard Acoustic OP is suitable for demanding healthcare application requiring Class A sound absorption and stringent cleaning methods: dry steam and damp cloth using standard detergents. It does not contribute to the growth of MRSA.



BIOGUARD ACOUSTIC

BioGuard Acoustic combines excellent cleanability, resistance to disinfectants and sound absorption. Along with its antimicrobial performance it is an ideal solution for healthcare environments.



BIOGUARD PLAIN

BioGuard Plain combines excellent cleanability and resistance to disinfectants. Along with its antimicrobial performance it is an ideal solution for healthcare environments.



SANIGUARD

SaniGuard fulfils all hygienic requirements for healthcare applications and does not contribute to the growth of MRSA. It combines smooth laminated finish and Class A sound absorption.



METAL BIOGUARD PLAIN

Metal BioGuard Plain is durable, water-resistant and can withstand scrubbing. With its antimicrobial properties, it is the ideal solution for very high-risk healthcare environments.

SUSPENSION SYSTEMS



CLEAN ROOM 24

CLEAN ROOM 24 grid has a co-extruded gasket allowing better seal between tile and grid. Its aluminium construction provides a non-magnetic system with high corrosion resistance. Clean Room 24 has ISO 3 clean room performance (tested against EN 14644-1) and can be cleaned with disinfectants.



PRELUDE

PRELUDE systems are available as 15mm or 24mm exposed grid. Made of galvanised steel, it's rotary stitched providing strength and extra stability. Prelude systems have ISO 3 clean room performance (tested against EN 14644-1) and can be cleaned with disinfectants.

CLEAN ROOM FL features a special polyester film facing providing excellent ISO clean room performance, making it an ideal solution for clean room and computer environments, especially in combination with Knauf Armstrong CLEAN ROOM 24 grid system.

PARAFON HYGIEN offers a winning balance of Class A sound absorption, washability and hygiene performances.



		BioGuard Acoustic OP	BioGuard Acoustic	BioGuard Plain	SaniGuard	Metal BioGuard Plain	Clean Room 24	Prelude
Anti-microbial	BioGuard Paint						—	—
NF S 90-351:2013	Min. ISO 5	 ISO 3	 ISO 4 (with Clean Room 24 grid)			 ISO 1	 ISO 3	 ISO 3
	CP5							
	M1*	 (8 bacteria)	 (7 bacteria)	 (7 bacteria)	 (5 bacteria)	 (8 bacteria)	 (8 bacteria)	 (7 bacteria)
Cleaning	Dry Cloth							
	Moist Cloth							
	Sponge							
	Scrubable							
	Dry Steam		 (Twice a year)					
	Chemical Resistance	 (Occasional cleaning)	 (Occasional cleaning)	 (Occasional cleaning)				
Acoustic (α _w)	0.10						—	—
	0.20						—	—
	0.60						—	—
	0.95						—	—

* Microbiological cleanliness:

SANIGUARD

Tested with:

- Staphylococcus aureus methicillin resistant
- Candida albicans
- Aspergillus brasiliensis
- Klebsiella pneumoniae
- Escherichia coli

BIOGUARD PLAIN, BIOGUARD ACOUSTIC AND PRELUDE

Tested with:

SaniGuard bacteria +

- Acinobacter baumannii
- Streptococcus pneumoniae

BIOGUARD ACOUSTIC OP, METAL BIOGUARD PLAIN AND CLEAN ROOM 24

Tested with:

BioGuard Plain/Acoustic bacteria +

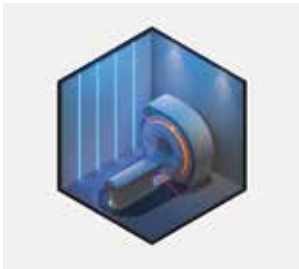
- Bacillus cereus



PRODUCT AVAILABILITY PER RISK LEVEL

Different healthcare environments present different risks, depending on the use of each area and the risk of biocontamination. These are split into four zones, with the risk levels being defined by NF S 90-351:2013. The areas that are most vulnerable to contamination, such as operating theatres, intensive care units, sterilisation areas and laboratories are of higher risk, therefore placed in higher zones, whilst administration areas, corridors and waiting areas are in a lower classification.

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.



A Proven Formula for MINIMAL RISK

- Halls
- Offices
- Administrative areas

Ultima* range
Perla range

with
Prelude 15 or 24
grid

A Proven Formula for AVERAGE RISK

- Central sterilisation areas
 - Pharmacies
 - MRI
- Maternity areas
- Circulation areas



with
Clean Room 24
and/or Prelude 15 or 24
grid

A Proven Formula for SEVERE RISK

- Delivery rooms
- Obstetrics rooms
- 'Small' surgery areas
 - Laboratories
- Treatment rooms



with
Clean Room 24
and/or Prelude 15 or 24
grid

A Proven Formula for VERY HIGH RISK

- Transplantation areas
 - Burns units
- Orthopaedics rooms



with
Clean Room 24
and/or Prelude 15 or 24
grid

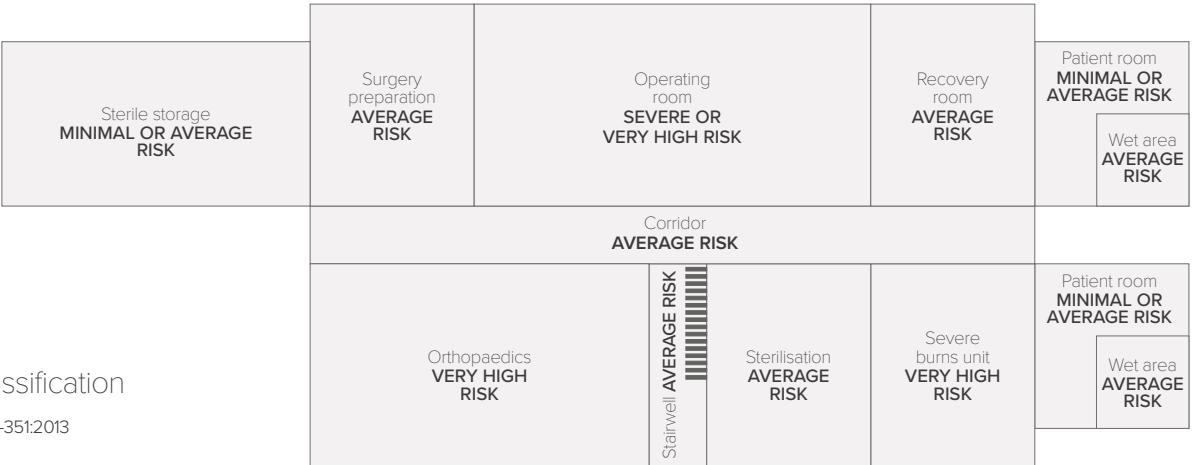
BIOGUARD
ACOUSTIC
OP

BIOGUARD
ACOUSTIC

BIOGUARD
PLAIN

SANIGUARD

METAL
BIOGUARD PLAIN



Examples of classification

Source: Standard NF S 90-351:2013

SOLUTION PER ROOM TYPE

In healthcare environments, it is important to focus on anti-microbial performance without forgetting the comfort of patients and healthcare professionals. Attention on hygiene is also crucial, as the control of bio-contamination and disinfection are of prime importance in preventing the spread of infectious agents.

In a healthcare premise, criteria for individual risk zones will need to be reached. It is paramount that the right construction elements are selected for each risk zone, and by using the table below, you can choose the right product for the right space.

ROOM TYPES	RISK	CRITERIA	BIOGUARD ACOUSTIC OP	BIOGUARD ACOUSTIC	BIOGUARD PLAIN	SANIGUARD	PARAFON HYGIEN	CLEAN ROOM FL	METAL BIOGUARD PLAIN
ACOUSTIC			0.95	0.60(H)	0.20(L)	0.95	0.95	0.15	0.10(L)
Transplantation areas, burns unit, neurosurgery, aseptic room, premature and special care baby unit, abnormal delivery room	Very High	M1 ISO 5 / CP5 Cleanability Sealed Ceiling	<div></div>	<div></div>					<div></div>
Intensive care, obstetrics and gynaecology, urology, plastic surgery haematology, chemotherapy, surgery	Severe	M10 ISO 7 / CP10 Cleanability	<div></div>	<div></div>	<div></div>				<div></div>
Neonatology, delivery room	Severe	M10 ISO 7 / CP10 Cleanability High Absorption	<div></div>			<div></div>			
Day hospitals-oriented infections recovery room, endoscopy, colonoscopy, sterilisation, radiology, MRI	Average	M100 ISO 8 / CP20 Cleanability		<div></div>	<div></div>				<div></div>
Maternity, paediatrics, recovery room, ward	Average	M100 ISO 8 / CP 20 Cleanability High Absorption				<div></div>			
Halls, corridors, stairwells, restaurant	Minimal	Cleanability High Absorption				<div></div>	<div></div>		
Offices, administrative areas, consultation and examination rooms	Minimal	Cleanability Confidentiality		<div></div>	<div></div>	<div></div>			<div></div>
Showers, bathroom	Minimal	Cleanability Humidity Resistance					<div></div>		<div></div>
Kitchen, Clean room areas	Minimal	Cleanability		<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>

The application areas are given for information only and do not constitute an exhaustive list.
Each healthcare establishment may determine the appropriate risk level for each area of application.



FOCUS ON BIOGUARD RANGE

BioGuard products provide excellent water repellency allowing frequent cleaning.

01

RESISTANCE TO DISINFECTANTS

BioGuard products can be cleaned with diluted disinfectants containing active agents such as Quaternary Ammonium, Hydrogen Peroxide and Chlorine.

Metal BioGuard Plain can be high pressure water cleaned with the appropriate installation.

02

ISO CLEAN ROOM

ISO 5 Clean Room performance for BioGuard Plain, and BioGuard Acoustic.

ISO 3 Clean Room performance for BioGuard Acoustic OP.

ISO 1 Clean Room performance for Metal BioGuard Plain (tested against ISO 14644-1).

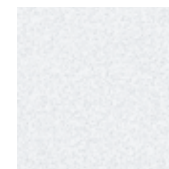
BioGuard Acoustic and BioGuard Acoustic OP Board are available with fully painted edges to provide the best guarantee for a clean room environment.

03

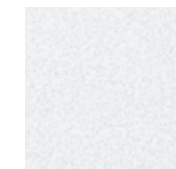
PROTECTION AGAINST BIOCONTAMINATION

BioGuard products prevent the growth of bacteria, mould and yeast, and prevent the settlement of bacteria on the surface of the tile.

The very smooth surface of BioGuard products limits the accumulation of dust and micro-organisms. (kinetic of decontamination test against NF S 90-351).



BIOGUARD
ACOUSTIC OP



BIOGUARD
ACOUSTIC



BIOGUARD
PLAIN



METAL
BIOGUARD
PLAIN



BIOGUARD ACOUSTIC OP

BIOGUARD ACOUSTIC OP is suitable for demanding healthcare application requiring Class A sound absorption and stringent cleaning methods: dry steam and damp cloth using standard detergents. It does not contribute to the growth of MRSA.

- Key features
- Safe use with disinfectants
 - ISO 3
 - Enhanced sound absorption (α_w 0.95) and water-repellency
 - Microbiological class M1 fulfilling the requirements of Zone 4 defined by NF S 90-351:2013

Application areas

Ideal for healthcare environments with severe risk of infection.

HEALTHCARE
BIOGUARD Acoustic OP



BIOGUARD ACOUSTIC OP

EDGE DETAIL	BOARD		TEGULAR		MICROLOOK 90																																			
THICKNESS (mm)	20		20		20																																			
MODULE (mm)	600 x 6002591M 1200 x 600.....2592M		600 x 6002593M		600 x 6002594M																																			
SUSPENSION SYSTEMS	Prelude 24 XL ² /TL ² Prelude 24 Corrosive Resistant Clean Room 24		Prelude 24 XL ² /TL ² Clean Room 24		Prelude 15 TL/XL ² Interlude HRC XL ²																																			
COLOURS	<div></div> <div>Global White</div>																																							
SUSTAINABILITY	<div><div> EN ISO 14021 17</div><div> A+</div><div> EN 13964 E1</div></div>																																							
ACOUSTICS	<div><div> EN ISO 10848-2 & EN ISO 717-1</div><div> EN ISO 354 & EN ISO 11654</div></div> <table><tr><th colspan="2"></th><th colspan="8">Hz α_p</th></tr><tr><th></th><th></th><th>D_{nfw}</th><th>α_w</th><th>Class</th><th>NRC</th><th>125</th><th>250</th><th>500</th><th>1000</th><th>2000</th><th>4000</th></tr><tr><td colspan="2">Board, Tegular, MicroLook 90</td><td>25 dB</td><td>0.95</td><td>A</td><td>0.95</td><td>0.55</td><td>0.85</td><td>0.95</td><td>0.90</td><td>1.00</td><td>1.00</td></tr></table>								Hz α_p										D _{nfw}	α_w	Class	NRC	125	250	500	1000	2000	4000	Board, Tegular, MicroLook 90		25 dB	0.95	A	0.95	0.55	0.85	0.95	0.90	1.00	1.00
		Hz α_p																																						
		D _{nfw}	α_w	Class	NRC	125	250	500	1000	2000	4000																													
Board, Tegular, MicroLook 90		25 dB	0.95	A	0.95	0.55	0.85	0.95	0.90	1.00	1.00																													
FIRE REACTION	<div><div></div><div>EEA Euroclass A2-s1, d0 EN 13501-1</div></div>																																							
OTHER PERFORMANCES & FEATURES	<div><div> 87% $\lambda = 0.037$ W/m K</div><div> 95% RH</div><div> 3.3 kg/m²</div><div> ISO 3 ISO 14644-1</div><div> </div><div>30 YEAR system guarantee</div><div>BIM READY</div></div>																																							
CUSTOM OPTIONS	<div><div></div><div>Dimensions</div></div>																																							

All sizes are nominal. Product availability may vary.
Please contact us or visit www.knaufarmstrong.com for more information.



BIOGUARD ACOUSTIC

BIOGUARD ACOUSTIC combines excellent cleanability, resistance to disinfectants and sound absorption. Along with its antimicrobial performance it is an ideal solution for healthcare environments.

- Key features
- Safe use with disinfectants
 - Enhanced water repellency: washable
 - ISO 4*
 - Enhanced sound absorption (α_w 0.60(H))

Application areas

Ideal for healthcare environments with average or severe risk of infection.

HEALTHCARE
UVN SNP Hospital (SK)
BIOGUARD Acoustic



BIOGUARD ACOUSTIC

EDGE DETAIL		BOARD		TEGULAR		MICROLOOK																			
THICKNESS (mm)		17		17		17																			
MODULE (mm)		600 x 600 2549M 1200 x 600 2550M 600 x 600 with 2703M 1200 x 600 painted edges 2704M		600 x 600 2551M		600 x 600 2552M																			
SUSPENSION SYSTEMS		Prelude 24 XL ² /TL ² Prelude 24 Corrosive Resistant Clean Room 24		Prelude 24 XL ² /TL ² Clean Room 24		Prelude 15 TL/XL ² Interlude HRC XL ²																			
COLOURS												 Global White													
SUSTAINABILITY																									
 EN ISO 14021 42		 A+		 EN 13964 E1		 EN ISO 14025 IBU																			
ACOUSTICS																									
				 EN ISO 10848-2 & EN ISO 717-1		 EN ISO 140-3 & EN ISO 717-1		 EN ISO 354 & EN ISO 11654																	
				D _{nfw}		R _w		α _w		Class		NRC		125		250		500		1000		2000		4000	
Board, Tegular, MicroLook				36 dB		18 dB		0.60(H)		C		0.60		0.35		0.40		0.50		0.70		0.85		0.90	
FIRE REACTION		 EEA Euroclass A2-s1, d0 EN 13501-1		RUS KM1 (G1, V1, D1, T1) FZ 123																					
OTHER PERFORMANCES & FEATURES		 87%		 95% RH		 ISO 4*		 ISO 14644-1		 		 		 		 		30 YEAR system guarantee							
		 EN 12667 & ISO 8301 λ = 0.060 W/m K		 4.5 kg/m ²																				BIM READY	
CUSTOM OPTIONS		 Dimensions																							

*With Clean Room 24 grid.
All sizes are nominal. Product availability may vary.
Please contact us or visit www.knaufarmstrong.com for more information.



BIOGUARD PLAIN

BIOGUARD PLAIN combines excellent cleanability and resistance to disinfectants. Along with its antimicrobial performance it is an ideal solution for healthcare environments.

- Key features
- Available in Plain surface with enhanced water repellency
 - High light reflectance: 87%
 - Washable
 - Safe use with disinfectants
 - ISO 4*
 - Good sound attenuation for increased confidentiality: 35dB

Application areas

Ideal for healthcare environments with average or severe risk of infection.

HEALTHCARE
UVN SNP Hospital (SK)
BIOGUARD Plain



BIOGUARD PLAIN

EDGE DETAIL	BOARD		TEGULAR		MICROLOOK																																				
THICKNESS (mm)	15		15		15																																				
MODULE (mm)	600 x 600 2221M 1200 x 600 2222M		600 x 600 2223M		600 x 600 2224M																																				
SUSPENSION SYSTEMS	Prelude 24 XL ² /TL ² Prelude 24 Corrosive Resistant Clean Room 24		Prelude 24 XL ² /TL ² Clean Room 24		Prelude 15 TL/XL ² Interlude HRC XL ²																																				
COLOURS	<div> Global White</div>																																								
SUSTAINABILITY	<div><div> 37-40</div><div> A+ / A'</div><div> E1</div><div>¹ Depends on edge detail and size of tile.</div></div>																																								
ACOUSTICS	<div><div><table><tr><th></th><th colspan="10">Hz α_p</th></tr><tr><th></th><th>D_{nfw}</th><th>R_w</th><th>α_w</th><th>Class</th><th>NRC</th><th>125</th><th>250</th><th>500</th><th>1000</th><th>2000</th><th>4000</th></tr><tr><td>Board, Tegular, MicroLook</td><td>35 dB</td><td>19 dB</td><td>0.20(L)</td><td>E</td><td>0.20</td><td>0.40</td><td>0.25</td><td>0.15</td><td>0.15</td><td>0.20</td><td>0.30</td></tr></table></div></div>							Hz α _p											D _{nfw}	R _w	α _w	Class	NRC	125	250	500	1000	2000	4000	Board, Tegular, MicroLook	35 dB	19 dB	0.20(L)	E	0.20	0.40	0.25	0.15	0.15	0.20	0.30
	Hz α _p																																								
	D _{nfw}	R _w	α _w	Class	NRC	125	250	500	1000	2000	4000																														
Board, Tegular, MicroLook	35 dB	19 dB	0.20(L)	E	0.20	0.40	0.25	0.15	0.15	0.20	0.30																														
FIRE REACTION	<div><div></div></div>																																								
OTHER PERFORMANCES & FEATURES	<div><div> 87%</div><div> λ = 0.060 W/m K</div><div> 95% RH</div><div> ≈ 3.6 kg/m²</div><div> ISO 4[*]</div><div> ISO 14644-1</div><div> 30 YEAR system guarantee</div><div> BIM READY</div><div></div></div>																																								
CUSTOM OPTIONS	<div><div> Dimensions</div></div>																																								

¹With Prelude grid.
All sizes are nominal. Product availability may vary.
Please contact us or visit www.knaufarmstrong.com for more information.



SANIGUARD

SANIGUARD fulfils all hygienic requirements for healthcare applications and does not contribute to the growth of MRSA. It combines smooth laminated finish and Class A sound absorption.

Key features

- Enhanced sound absorption: 0.95 α_w
- ISO 5
- Microbiological class M1 fulfilling the requirements of Zone 4 defined by NF S 90-351:2013

Application areas

Ideal for healthcare environments with average risk of infection.

HEALTHCARE
SANIGUARD



SANIGUARD

EDGE DETAIL	BOARD		TEGULAR		MICROLOOK 90																																
THICKNESS (mm)	15		15		15																																
MODULE (mm)	600 x 6001600M 1200 x 600.....1601M		600 x 6001602M		600 x 6001603M																																
SUSPENSION SYSTEMS	Prelude 24 XL ² /TL ²		Prelude 24 XL ² /TL ²		Prelude 15 TL/XL ² Interlude HRC XL ²																																
COLOURS	<div></div> <div>Global White</div>																																				
SUSTAINABILITY	<div><div> EN ISO 14021 42-79¹</div><div> A+</div><div> EN 13964 E1</div><div> EN ISO 14025 IBU</div><div>¹ Depends on edge detail and size of tile.</div></div>																																				
ACOUSTICS	<div><div> EN ISO 10848-2 & EN ISO 717-1</div><div> EN ISO 354 & EN ISO 11654</div><table><tr><th colspan="10">Hz α_p</th></tr><tr><th>D_{nfw}</th><th>α_w</th><th>Class</th><th>NRC</th><th>125</th><th>250</th><th>500</th><th>1000</th><th>2000</th><th>4000</th></tr><tr><td>Board, Tegular, MicroLook 90</td><td>25 dB</td><td>0.95</td><td>A</td><td>0.90</td><td>0.50</td><td>0.80</td><td>0.95</td><td>0.85</td><td>0.95</td><td>1.00</td></tr></table></div>						Hz α _p										D _{nfw}	α _w	Class	NRC	125	250	500	1000	2000	4000	Board, Tegular, MicroLook 90	25 dB	0.95	A	0.90	0.50	0.80	0.95	0.85	0.95	1.00
Hz α _p																																					
D _{nfw}	α _w	Class	NRC	125	250	500	1000	2000	4000																												
Board, Tegular, MicroLook 90	25 dB	0.95	A	0.90	0.50	0.80	0.95	0.85	0.95	1.00																											
FIRE REACTION	<div><div> EEA Euroclass A2-s1, d0 EN 13501-1</div></div>																																				
OTHER PERFORMANCES & FEATURES	<div><div> 85%</div><div> λ = 0.036 W/m K EN 12667 & ISO 8301</div><div> 95% RH</div><div> 2.4 kg/m²</div><div> ISO 14644-1</div><div> ISO 5</div><div> 30 YEAR system guarantee</div></div>																																				

All sizes are nominal. Product availability may vary.
Please contact us or visit www.knaufarmstrong.com for more information.



METAL BIOGUARD

METAL BioGuard tiles are available as a Lay-In system. Combined with Clean Room grid, Metal BioGuard tiles achieve ISO 1 clean room performance, the best possible result when it comes to the concentration of particles emitted by the ceiling into the room.

- Key features
- ISO 1 clean room performance
 - Excellent sound attenuation for increased confidentiality: 44dB
 - Safe use with disinfectants
 - 100% RH performance for Metal BioGuard Plain when painted front and back






















Application areas

Ideal for healthcare environments with very high risk of infection.

HEALTHCARE
METAL BioGuard Plain



METAL BIOGUARD

SYSTEM		LAY-IN											
EDGE DETAIL	METAL BOARD	METAL TEGULAR 2	METAL TEGULAR 8	METAL TEGULAR 11F	METAL TEGULAR 16								
COLOURS	 RAL 9010	 Global White											
SUSTAINABILITY	 EN ISO 14021 ≤ 30	 A+	 E1										
ACOUSTICS			 EN ISO 10848-2 & EN ISO 717-1	 EN ISO 140-3 & EN ISO 717-1	 EN ISO 354 & EN ISO 11654								
			D _{nfw}	R _w	α _w	Class	NRC	125	250	500	1000	2000	4000
	Unperforated		44 dB	19 dB	0.10(L)	NC	0.10	0.25	0.15	0.05	0.05	0.10	0.10
FIRE REACTION		EEA Euroclass A1 EN 13501-1											
OTHER PERFORMANCES & FEATURES		85%				≈100% RH				ISO 1			<div>30 YEAR system guarantee</div>
		λ = 0.244 W/m K				≈5.2 kg/m²				ISO 14644-1			
		EN 12667 & ISO 8301											
CUSTOM OPTIONS	 Dimensions												

All sizes are nominal. Product availability may vary.
Please contact us or visit www.knaufarmstrong.com for more information.

CLEAN ROOM 24 XL²

Exposed 24mm co-extruded grid system for clean rooms and non-magnetic areas

Key features

- Aluminium construction: non-magnetic system with high corrosion resistance
- Co-extruded gasket: better seal between tile and grid
- Class 4 performance as per ISO standard 14644-1
- Durability Class B (EN 13964)

Application areas

Healthcare, High tech manufacturing

Physical data

- Material : aluminium with co-extruded flexible PVC gasket
- Surface finish: aluminium capping with baked polyester paint
- Colour: Global White

CLEAN ROOM 24 - MAIN RUNNER (bulb-to-bulb connection)

Item Nr.	Dimensions (mm)				Standard colours
	length	width	height	slot centres	
EA 794044 C	3600	24	52	300	Global white

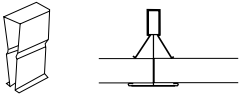
CLEAN ROOM 24 - CROSS TEES (stab system, butt cut)

EA 793044 C	1200	24	52	300	
EA 792044 C	600	24	52	300	

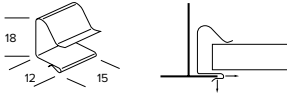
PERIMETER SOLUTION

EA 7812 C	3660	22	22	-	
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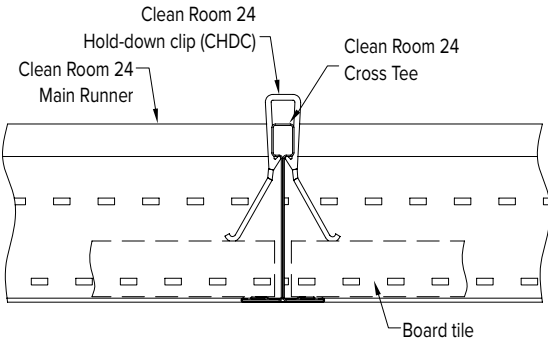
ACCESSORIES



CHDC
Hold down clip suitable for non-magnetic areas



A 426 G
Board access clip



Clean Room 24
Hold-down clip (CHDC)
Clean Room 24 Main Runner
Clean Room 24 Cross Tee
Board tile

SUSTAINABILITY



cradle to cradle
BY EVEL



EN ISO 14021
25



A+



E1

FIRE REACTION



EEA Euroclass A2-s1, d0
EN 13501-1

OTHER PERFORMANCES & FEATURES









ISO 4



30 YEAR
system guarantee




All sizes are nominal. Product availability may vary.
Please contact us or visit www.knaufarmstrong.com for more information.

PRELUDE 15 TL & XL²

Exposed 15 mm grid system

Key features

- Peakform : patented design for strength, stability and easier to cut
- Superlock clip: secure Main Runner connection for better alignment and easier to disconnect
- Rotary stitched: strength and extra stability

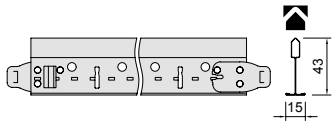
Application areas

Healthcare / Classrooms / Meeting rooms / Individual offices

Physical data

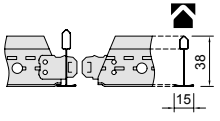
- Material: galvanised steel
- Surface finish: baked polyester paint
- Colour: all products standard in Global White
- Other standard colours available on popular items

PRELUDE 15 - UNIVERSAL PEAKFORM MAIN RUNNER & SUPERLOCK CLIP (bulb-to-bulb connection)



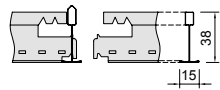
Item Nr.	Dimensions (mm)				Standard colours					
	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
31 40 33 A	3600	15	43	100						
30 41 33 B	3750	15	43	156.5						
30 43 33 B	3375	15	43	337.5						

PRELUDE 15 - XL² PEAKFORM CROSS TEES (stab system, override)



30 30 33 B	1200	15	38	300						
30 31 33 A	1250	15	38	312.5						
30 32 33	1000	15	38	250						
30 30 32	1200	15	38	1						
30 36 32	1500	15	38	2						
30 34 32	1800	15	38	300						
30 09 32	2400	15	38	300						
30 20 33 B	600	15	38	-						
30 21 33 A	325	15	38	-						
30 22 33	500	15	38	-						
30 05 32	550	15	38	-						
A 30 12 33	150	15	38	-						
A 30 04 33	100	15	38	-						

PRELUDE 15 - TL CROSS TEES (hook system, butt cut)



10 34 33 B	1800	15	38	300						
10 36 33A	1500	15	38	300						
10 33 33	1350	15	38	337.5						
10 31 33 B	1250	15	38	312.5						
10 30 33 A	1200	15	38	300						
10 23 33	675	15	38	-						
10 21 33 B	625	15	38	-						
10 20 33 A	600	15	38	-						
10 25 33	312.50	15	38	-						
10 24 33 A	300	15	38	-						
10 12 32	150	15	38	-						

SUSTAINABILITY



cradle to cradle
BY EVEL



EN ISO 14021
25




A+



E1

FIRE REACTION



EEA Euroclass A1
EN 13501-1

RUS KM0 (NG)/
KM1 (G1, V1, D1, T1)
FZ 123

OTHER PERFORMANCES & FEATURES










ISO 3




30 YEAR
system guarantee

CUSTOM OPTIONS



Colours



Dimensions




All sizes are nominal. Product availability may vary.
Please contact us or visit www.knaufarmstrong.com for more information.

PRELUDE 24 TL²

Exposed 24 mm grid system

Key features

- Peakform : patented design for strength, stability and easier to cut
- Superlock clip: secure Main Runner connection for better alignment and easier to disconnect
- Unique steel based TL² clip for strength, fire performance and better alignment
- Rotary stitched: strength and extra stability

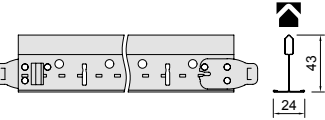
Application areas

Healthcare / Classrooms / Meeting rooms / Individual offices

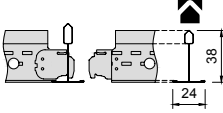
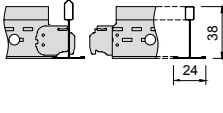
Physical data

- Material: galvanised steel
- Surface finish: baked polyester paint
- Colour: all products standard in Global White
- Other standard colours available on popular items

PRELUDE 24 - UNIVERSAL PEAKFORM MAIN RUNNER & SUPERLOCK CLIP (bulb-to-bulb connection)

	Item Nr.	Dimensions (mm)				Standard colours					
		length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
	31 40 32 A	3600	24	43	100						
	31 41 33 B	3750	24	43	156.5						
	31 43 33 B	3375	24	43	337.5						
	31 42 32	3000	24	43	100						


PRELUDE 24 - TL² CROSS TEES (hook system, butt cut)

Cross Tees slotted											
	08 30 31	1200	24	38	300						
	08 31 31	1250	24	38	312.5						
	08 33 31	1350	24	38	337.5						
	08 34 32	1800	24	38	300						
	08 36 32	1500	24	38	1						
	08 10 32	1875	24	38	312.5						
	08 50 32	1724	24	38	300						
¹ Slots at: 150, 500, 750, 1000, 1350 mm											
Cross Tees unslotted											
	08 20 31	600	24	38	-						
	08 21 31	625	24	38	-						
	08 23 31	675	24	38	-						
	08 18 32	900	24	38	-						
	08 24 32 C	300	24	38	-						
	08 25 32 C	312.5	24	38	-						

PRELUDE 24 XL²

Exposed 24 mm grid system

Key features

- Peakform : patented design for strength, stability and easier to cut
- Superlock clip: secure Main Runner connection for better alignment and easier to disconnect
- Rotary stitched: strength and extra stability

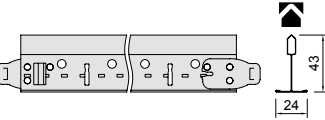
Application areas

Healthcare / Classrooms / Meeting rooms / Individual offices

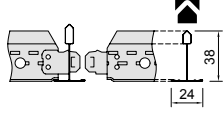
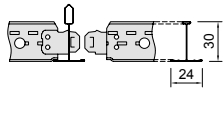
Physical data

- Material: galvanised steel
- Surface finish: baked polyester paint
- Colour: all products standard in Global White
- Other standard colours available on popular items

PRELUDE 24 - UNIVERSAL PEAKFORM MAIN RUNNER & SUPERLOCK CLIP (bulb-to-bulb connection)

	Item Nr.	Dimensions (mm)				Standard colours					
		length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
	31 40 32 A	3600	24	43	100						
	31 41 33 B	3750	24	43	156.5						
	31 43 33 B	3375	24	43	337.5						
	31 42 32	3000	24	43	100						

PRELUDE 24 - XL² CROSS TEES (stab system, override)

Cross Tees slotted											
	31 31 51 B	1250	24	38	312.5						
	31 30 51 B	1200	24	38	300						
	31 32 31	1000	24	38	250						
	31 33 31	1350	24	38	337.5						
	31 34 31 A	1800	24	38	300						
	31 36 32	1500	24	38	1						
¹ Slots at: 150, 500, 750, 1000, 1350 mm											
Cross Tees unslotted											
	31 25 32	312.5	24	38	-						
	31 24 32	300	24	38	-						
	31 23 21	675	24	30	-						
	31 21 23 A	625	24	30	-						
	31 20 21 A	600	24	30	-						
	31 22 21	500	24	30	-						

SUSTAINABILITY



FIRE REACTION



EEA Euroclass A1
EN 13501-1

RUS KM0 (NG)/
KM1 (G1, V1, D1, T1)
FZ 123

OTHER PERFORMANCES & FEATURES



ISO 3

30 YEAR
system
guarantee

CUSTOM OPTIONS



Colours

Dimensions



All sizes are nominal. Product availability may vary.
Please contact us or visit www.knaufarmstrong.com for more information.

SUSTAINABILITY



FIRE REACTION



EEA Euroclass A1
EN 13501-1

RUS KM0 (NG)/
KM1 (G1, V1, D1, T1)
FZ 123

OTHER PERFORMANCES & FEATURES



ISO 3

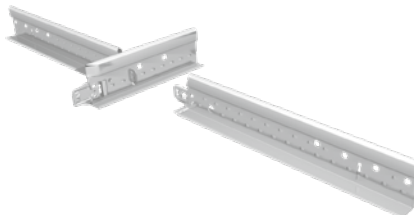
30 YEAR
system
guarantee

CUSTOM OPTIONS



Colours

Dimensions



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PRODUCT FEATURES AT A GLANCE

	MINERAL CEILING TILES			MINERAL CEILING TILES		METAL CEILING TILES	GRID
	BioGuard Acoustic OP	BioGuard Acoustic	BioGuard Plain	SaniGuard	Parafon Hygien	Metal BioGuard Plain	Clean Room 24
EDGE DETAIL	Board Tegular MicroLook 90	Board Tegular MicroLook	Board Tegular MicroLook	Board Tegular MicroLook 90	Board Tegular MicroLook 90	Board	24mm
CLASSIFICATION NF S 90-351:2013	Zone 4	Zone 2, 3 & 4	Zone 2	Zone 2, 3 & 4	Zone 1, 2 & 3	Zone 4	Zone 2, 3 & 4
PARTICLE CLEANLINESS CLASS	ISO 3	ISO 4 (with Clean Room 24 grid)	ISO 4 (with Prelude grid)	ISO 5	ISO 4	ISO 1	ISO 3
KINETIC OF DECONTAMINATION CLASS	CP 5	CP 5	CP 5	CP 5	CP 5	CP 5	CP 5
BACTERIOLOGICAL CLEANLINESS CLASS	M1	M1	M1	M1	M1	M1	M1
AIR PERMEABILITY ¹	✓	✓	✓	✓	✓	✓	✓
MATERIAL	Mineral fibre	Mineral fibre	Mineral fibre	Mineral fibre	Soft fibre	Steel	Aluminium with co-extruded flexible PVC gasket
SURFACE	BioGuard paint	BioGuard paint	BioGuard paint	Glass veil	Glass veil	Plain with BioGuard polyester powder paint	Aluminium capping with baked polyester paint
CLEANING	Dry cloth, Moist cloth, Damp sponge, Dry steam	Dry cloth, Moist cloth, Damp sponge, Dry steam (twice a year)	Dry cloth, Moist cloth, Damp sponge	Dry cloth, Moist cloth, Damp sponge	Dry cloth, Moist cloth, Damp sponge, High pressure water cleaning ²	Dry cloth, Moist cloth, Damp sponge	Dry cloth, Moist cloth, Damp sponge
RESISTANCE TO DISINFECTANTS ³	Quaternary Ammonium, Hydrogen Peroxide, Chlorine, Glutaraldehyde	Quaternary Ammonium, Hydrogen Peroxide, Chlorine, Glutaraldehyde	Quaternary Ammonium, Hydrogen Peroxide, Chlorine, Glutaraldehyde	-	-	Quaternary Ammonium, Hydrogen Peroxide, Chlorine, Glutaraldehyde	Quaternary Ammonium, Hydrogen Peroxide, Chlorine, Glutaraldehyde
HUMIDITY RESISTANCE	95%	95%	95%	95%	95%	100% RH (when painted front and back)	≤ 90%
SOUND ABSORPTION (α _w)	0.95	0.60(H)	0.20(L)	0.95	0.95	0.10(L)	-
SOUND ATTENUATION	25 dB	35 dB	36 dB	25 dB	27 dB	44 dB	-
LIGHT REFLECTANCE	87%	87%	87%	85%	85%	85%	-
RECYCLED CONTENT	17%	42%	37-40%	42-79%	20%	30%	25%
FIRE REACTION	A2-s1,d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0
WEIGHT PER M²	3.3 kg	4.5 kg	3.6 kg	2.4 kg	1.3 kg	5.2 kg	-

¹ Air permeability tests are available upon request. Our products have been tested against ISO 9972.
² The application must be in the form of a fan spray of min 30° angle and not a high pressure "cutting" jet. The suggested minimum distance between the nozzle and the ceiling tile should not be less than 300 mm and the angle of projection should be 45°. Parafon Hygien should be installed with Knauf Armstrong Prelude 24 Corrosive Resistant grid and be clipped for high pressure water cleaning. Cleaning recommended twice a year.
³ Occasional cleaning is recommended for BioGuard Plain / BioGuard Acoustic / BioGuard Acoustic OP.



Advisory note

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