YOUR PROJECT
OUR EXPERIENCE

Armstrong®
CEILING SOLUTIONS

HEALTHCARE RANGE

A proven formula
in healthcare ceilings

KNAUFCEILING
Solutions

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.

CONTENTS

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.

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.

THREE MAIN CRITERIA

01

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

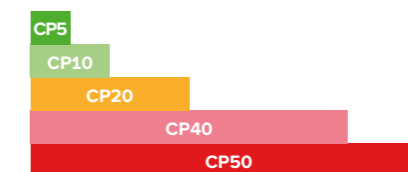Determines the concentration of particles emitted by the ceiling into the room.

ISO 9

ISO 1

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.

CP5
CP10
CP20
CP40
CP50

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.

M1
M2
M3
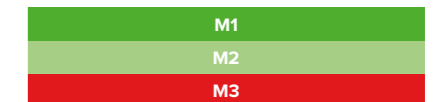
The lower the index, the more resistant the ceiling is to the proliferation of bacteria.

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	■	■	■		■	□	□
	Scrubbable	■	■				□	□
	Dry Steam	■	■ (Twice a year)			■	□	□
	Chemical Resistance	■ (Occasional cleaning)	■ (Occasional cleaning)	■ (Occasional cleaning)		■	□	□
Acoustic (αw)	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 baumanii
• 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**	A Proven Formula for **AVERAGE RISK**	A Proven Formula for **SEVERE RISK**	A Proven Formula for **VERY HIGH RISK**
• Halls • Offices • Administrative areas	• Central sterilisation areas • Pharmacies • MRI • Maternity areas • Circulation areas	• Delivery rooms • Obstetrics rooms • 'Small' surgery areas • Laboratories • Treatment rooms	• Transplantation areas • Burns units • Orthopaedics rooms
Ultima⁺ range **Perla range**			
with **Prelude 15 or 24** grid	with **Clean Room 24** **and/or Prelude 15 or 24** grid	with **Clean Room 24** **and/or Prelude 15 or 24** grid	with **Clean Room 24** **and/or Prelude 15 or 24** grid

BIOGUARD ACOUSTIC OP

BIOGUARD ACOUSTIC

BIOGUARD PLAIN

SANIGUARD

METAL BIOGUARD PLAIN

Sterile storage
MINIMAL OR AVERAGE RISK

Surgery preparation
AVERAGE RISK

Operating room
SEVERE OR VERY HIGH RISK

Recovery room
AVERAGE RISK

Patient room
MINIMAL OR AVERAGE RISK

Wet area
AVERAGE RISK

Corridor
AVERAGE RISK

Orthopaedics
VERY HIGH RISK

Stairwell **AVERAGE RISK**

Sterilisation
AVERAGE RISK

Severe burns unit
VERY HIGH RISK

Patient room
MINIMAL OR AVERAGE RISK

Wet area
AVERAGE RISK

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	●	●					●
Intensive care, obstetrics and gynaecology, urology, plastic surgery haematology, chemotherapy, surgery	**Severe**	M10 ISO 7 / CP10 Cleanability	●	●	●				●
Neonatology, delivery room	**Severe**	M10 ISO 7 / CP10 Cleanability High Absorption	●			●			
Day hospitals-oriented infections recovery room, endoscopy, colonoscopy, sterilisation, radiology, MRI	**Average**	M100 ISO 8 / CP20 Cleanability		●	●				●
Maternity, paediatrics, recovery room, ward	**Average**	M100 ISO 8 / CP 20 Cleanability High Absorption				●			
Halls, corridors, stairwells, restaurant	**Minimal**	Cleanability High Absorption				●	●		
Offices, administrative areas, consultation and examination rooms	**Minimal**	Cleanability Confidentiality	●	●	●				●
Showers, bathroom	**Minimal**	Cleanability Humidity Resistance					●		●
Kitchen, Clean room areas	**Minimal**	Cleanability	●	●	●	●		●	●

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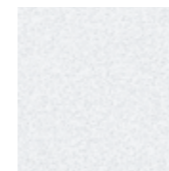
BioGuard Acoustic and BioGuard Acoustic OP Board are available with fully painted edges to provide the best guarantee for a clean room environment.

03
PROTECTION AGAINST BIOCONTAMINATION

BioGuard products prevent the growth of bacteria, mould and yeast, sand 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

EDGE DETAIL	BOARD	TEGULAR	MICROLOOK 90
THICKNESS (mm)	20	20	20
MODULE (mm)	600 x 600 . . . . .2591M 1200 x 600 . . . . 2592M	600 x 600 . . . . 2593M	600 x 600 . . . . .2594M
SUSPENSION SYSTEMS	Prelude 24 XL²/TL² Prelude 24 Corrosive Resistant Clean Room 24	Prelude 24 XL²/TL² Clean Room 24	Prelude 15 TL/XL² Interlude HRC XL²

COLOURS

Global White

SUSTAINABILITY

17	A+	E1
EN ISO 14021		EN 13964

ACOUSTICS

	EN ISO 10848-2 & EN ISO 717-1	EN ISO 354 & EN ISO 11654								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

EEA Euroclass A2-s1, d0
EN 13501-1

OTHER PERFORMANCES & FEATURES

87%   95% RH   ISO 3   **30 YEAR** system guarantee

$\lambda = 0.037$ W/m K   3.3 kg/m²   ISO 14644-1   **BIM** READY

EN 12667 & ISO 8301   Kg

CUSTOM OPTIONS

Dimensions

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.

HEALTHCARE
BIOGUARD Acoustic OP

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.

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.

HEALTHCARE
UVN SNP Hospital (SK)
BIOGUARD Acoustic

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.

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 . . . . 2704M edges	600 x 600 . . . . . 2551M	600 x 600 . . . . . 2552M
SUSPENSION SYSTEMS	Prelude 24 XL²/TL² Prelude 24 Corrosive Resistant Clean Room 24	Prelude 24 XL²/TL² Clean Room 24	Prelude 15 TL/XL² Interlude HRC XL²

COLOURS

Global White

SUSTAINABILITY

EN ISO 14021	EN 13964	EN 13964	EN ISO 14025
42	A+	E1	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

Hz α_p

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

λ = 0.060 W/m K | 4.5 kg/m² Kg

EN 12667 & ISO 8301

30 YEAR system guarantee

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.

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 XL²/TL² Prelude 24 Corrosive Resistant Clean Room 24	Prelude 24 XL²/TL² Clean Room 24	Prelude 15 TL/XL² Interlude HRC XL²

COLOURS

Global White

SUSTAINABILITY

EN ISO 14021 — 37-40

A+ / A¹

EN 13964 — E1

[1] Depends on edge detail and size of tile.

ACOUSTICS

	EN ISO 10848-2 & EN ISO 717-1	EN ISO 140-3 & EN ISO 717-1	EN ISO 354 & EN ISO 11654			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

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

λ = 0.060 W/m K

EN 12667 & ISO 8301

$\simeq$ 3.6 kg/m²

BIM READY

CUSTOM OPTIONS

Dimensions

BIOGUARD PLAIN

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

HEALTHCARE
UVN SNP Hospital (SK)
BIOGUARD Plain

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.

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

EDGE DETAIL	BOARD	TEGULAR	MICROLOOK 90
THICKNESS (mm)	15	15	15
MODULE (mm)	600 x 600 . . . . .1600M 1200 x 600 . . . . 1601M	600 x 600 . . . . .1602M	600 x 600 . . . . .1603M
SUSPENSION SYSTEMS	Prelude 24 XL²/TL²	Prelude 24 XL²/TL²	Prelude 15 TL/XL² Interlude HRC XL²

COLOURS

Global White

SUSTAINABILITY

EN ISO 14021 — 42-79[1]
A+ EN 13964
E1
EPD EN ISO 14025 — IBU

[1] Depends on edge detail and size of tile.

ACOUSTICS

EN ISO 10848-2 & EN ISO 717-1
EN ISO 354 & EN ISO 11654

	D$_{nfw}$	α$_w$	Class	NRC	Hz α$_p$					
					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

EEA Euroclass A2-s1, d0
EN 13501-1

OTHER PERFORMANCES & FEATURES

85%
λ = 0.036 W/m K
EN 12667 & ISO 8301

95% RH
2.4 kg/m²
Kg

ISO 5
ISO 14644-1

30 YEAR system guarantee

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.

HEALTHCARE
SANIGUARD

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.

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

SYSTEM			LAY-IN		

EDGE DETAIL	METAL BOARD	METAL TEGULAR 2	METAL TEGULAR 8	METAL TEGULAR 11F	METAL TEGULAR 16
	43 / 24	2.5 / 44 / 24	8 / 50 / 24	11 / 53 / 24	16 / 58 / 24

COLOURS

RAL 9010   Global White

SUSTAINABILITY

EN ISO 14021 ≤ 30   A+   EN 13964 E1

ACOUSTICS

EN ISO 10848-2 & EN ISO 717-1   EN ISO 140-3 & EN ISO 717-1   EN ISO 354 & EN ISO 11654
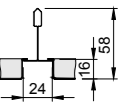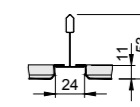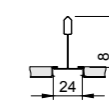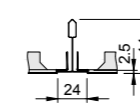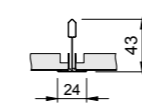
	D_{nfw}	R_w	α_w	Class	NRC	Hz α_p					
						125	250	500	1000	2000	4000
Unperforated	44 dB	19 dB	0.10(L)	NC	0.10	0.25	0.15	0.05	0.05	0.10	0.10

FIRE REACTION

EEA   Euroclass A1
EN 13501-1

OTHER PERFORMANCES & FEATURES

85%   ≈100% RH   ISO 1   30 YEAR system guarantee

λ = 0.244 W/m K   ≈5.2 kg/m^2 ISO 14644-1

EN 12667 & ISO 8301

CUSTOM OPTIONS

Dimensions

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.

HEALTHCARE
METAL BioGuard Plain

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.

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 Global white
	length	width	height	slot centres	
EA 794044 C	3600	24	52	300	●

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

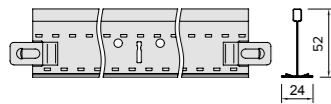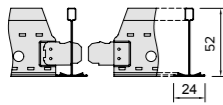| Item Nr.	length	width	height	slot centres	Global white
EA 793044 C	1200	24	52	300	●
EA 792044 C	600	24	52	300	●

PERIMETER SOLUTION

Item Nr.	length	width	height	slot centres	Global white
EA 7812 C	3660	22	22	-	●

ACCESSORIES
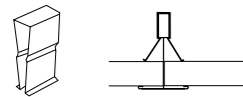
CHDC
Hold down clip suitable for non-magnetic areas
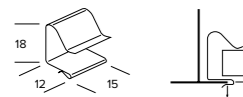
A 426 G
Board access clip
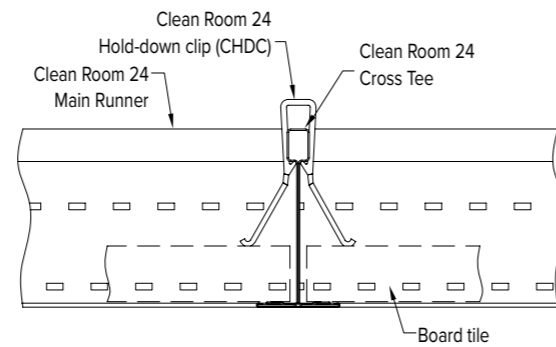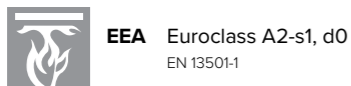
Clean Room 24 Hold-down clip (CHDC)
Clean Room 24 Cross Tee
Clean Room 24 Main Runner
Board tile

SUSTAINABILITY

25   A+   E1

FIRE REACTION

EEA   Euroclass A2-s1, d0   EN 13501-1

OTHER PERFORMANCES & FEATURES

ISO 4   ISO 14644-1   **30 YEAR** system guarantee

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
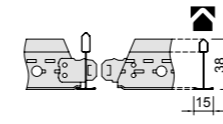
Physical data

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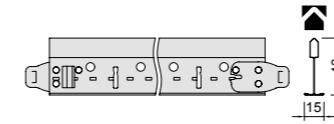
Item Nr.	Dimensions (mm)				Standard colours					
	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
31 40 33 A	3600	15	43	100	●	●	●	●	●	●
30 41 33 B	3750	15	43	156.5	●	●	●	●	●	●
30 43 33 B	3375	15	43	337.5	●					

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

Cross Tees slotted

Item Nr.	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
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	●					

Cross Tees unslotted

Item Nr.	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
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	-	●					

¹ Slots at: 300, 550, 600, 650, 900 mm
² Slots at: 150, 500, 750, 1000, 1350 mm

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

Cross Tees slotted
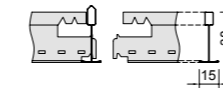
Item Nr.	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
10 34 33 B	1800	15	38	300	●					
10 36 33A	1500	15	38	300	●					
10 33 33	1350	15	38	337.5	●					
10 31 33 B	1250	15	38	312.5	●	●	●	●	●	●
10 30 33 A	1200	15	38	300	●	●	●	●	●	●

Cross Tees unslotted

Item Nr.	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
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
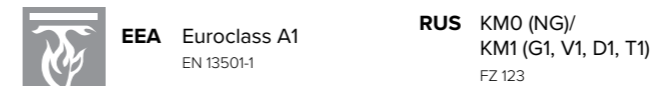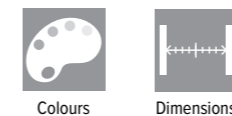
25   A+   E1

FIRE REACTION

EEA   Euroclass A1   EN 13501-1   **RUS**   KM0 (NG)/ KM1 (G1, V1, D1, T1)   FZ 123

OTHER PERFORMANCES & FEATURES

ISO 3   ISO 14644-1   **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.

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

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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
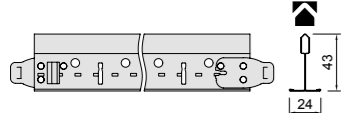- Rotary stitched: strength and extra stability

Application areas
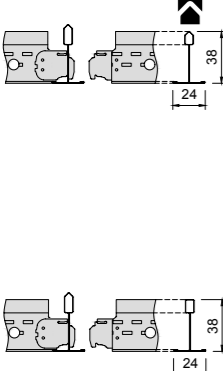Healthcare / Classrooms / Meeting rooms / Individual offices

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

Item Nr.	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
▲ 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

Item Nr.	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
▲ 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	-	●					

SUSTAINABILITY

cradle to cradle SYLVER · EN ISO 14021 25 · A+ · EN 13964 E1

FIRE REACTION

EEA Euroclass A1 EN 13501-1

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

OTHER PERFORMANCES & FEATURES

ISO 3 · ISO 14644-1 · 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 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
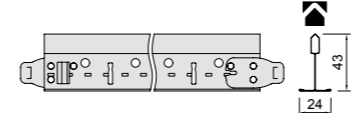- Rotary stitched: strength and extra stability

Application areas
Healthcare / Classrooms / Meeting rooms / Individual offices
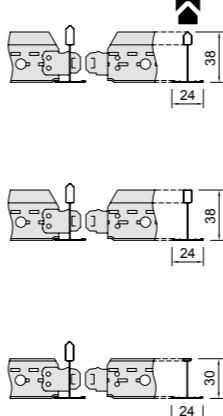
Physical data
- Material: galvanised steel
- Surface finish: baked polyester paint
- Colour: all products standard in Global White
- Other standard colours available on popular items

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

Item Nr.	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
▲ 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

Item Nr.	length	width	height	slot centres	Global white	White RAL 9010	Silver RAL 9006	Black	Brass	Chrome
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
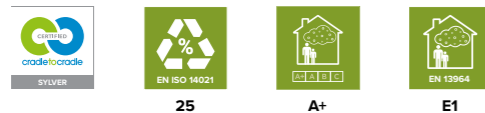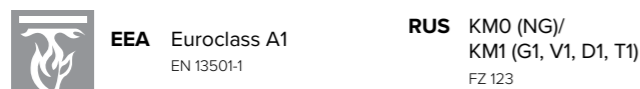
cradle to cradle SYLVER · EN ISO 14021 25 · A+ · EN 13964 E1

FIRE REACTION

EEA Euroclass A1 EN 13501-1

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

OTHER PERFORMANCES & FEATURES

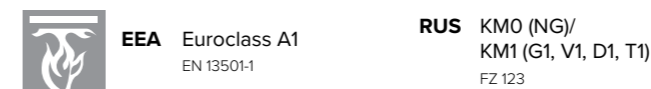ISO 3 · ISO 14644-1 · 30 YEAR system guarantee

CUSTOM OPTIONS

Colours · Dimensions

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

PRODUCT FEATURES AT A GLANCE
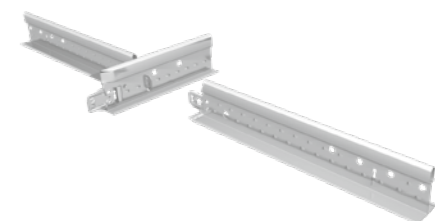
	MINERAL CEILING TILES			MINERAL CEILING TILES		METAL CEILING TILES	GRID
	BioGuard Acoustic OP	BioGuard Acoustic	BioGuard Plain	SaniGuard	Parafon Hygien	Metal BioGuard Plain	Clean Room 24
EDGE DETAIL	Board Tegular MicroLook 90	Board Tegular MicroLook	Board Tegular MicroLook	Board Tegular MicroLook 90	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.

Armstrong®
CEILING SOLUTIONS

KNAUFCEILING
Solutions

Advisory note