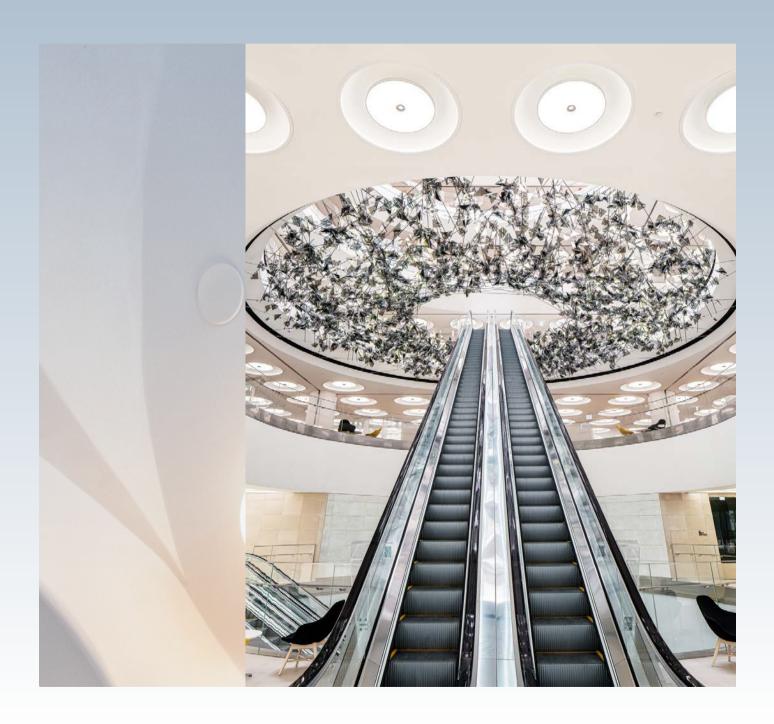
SEAMLESS ACOUSTC CEILINGS

ECOPHON FADE®





AROUT ECOPHON

- 06 GOOD ACOUSTICS MATTER EVERYWHERE
- **08 SUSTAINABILITY**
- 10 OUR ACOUSTIC PLASTER SYSTEM fade®
- 12 SEAMLESS ACOUSTIC CEILINGS WITH fade®
- 14 ECOPHON fade® PRODUCT RANGE
 - 14 fade® Acoustic Plaster Plus+
 - 14 fade® Acoustic Plaster Albus
- 14 INSTALLATION METHODS
- 15 INSTALLATION GUIDANCE
- 20 SYSTEM PROPERTIES

Acoustics, techical properties and installation diagrams

This publication shows products from Ecophon product range and those of other suppliers.

The specifications are intended to provide a general guide to which products are most suitable for the preferences indicated. Technical data is based on results obtained under typical testing conditions or long experience in normal conditions. The specified functions and properties for products and systems are only valid on condition that instructions, installation diagrams, installation guides, maintenance instructions and other stated conditions and recommendations have been taken into consideration and followed. Deviation from this, such as changing specific components or products, will mean that Ecophon cannot be held responsible for the function, consequences and properties of the products. All descriptions, illustrations and dimensions contained in this brochure represent general information and shall not form part of any contract. Ecophon reserves the right to change products without prior notice. We disclaim any liability for misprints. For the latest information go to www.ecophon.com or contact your nearest Ecophon representative.



OLLO CONTROPLE OF CONTROPLE OF

Saint-Gobain Ecophon contributes to good indoor environments for working, healing and learning. We do this by developing, manufacturing and delivering acoustic products and systems designed around the natural evolution of human hearing – replicating the outdoor sound experience indoors, because that's just better for people.

Having a sound effect on people, in every way we can, is what we do proudly. That promise makes every one of us a passionate advocate for the importance of room acoustics to people's wellbeing – whatever the space, activity or need.

The importance of acoustics is underappreciated. Sound impacts us in daily life, and the scientific support for improving our indoor sound environments is well-documented.

And what exactly is an ideal indoor sound environment for people?

One based on how we experience sound outside. The human auditory sense is naturally adapted to an outdoor environment where there is not any sound reflections from ceilings and walls.

That's why most of what we do at Ecophon is about replicating the acoustic qualities found in nature for indoor environments. We want to optimise indoor spaces to our natural way of hearing, so that speech and sound is easy to hear and understand, when needed, improving performance and wellbeing.

Usually that starts with the ceiling. A wall-to-wall acoustic ceiling is the easiest way to get a large sound-absorbing surface area into a space, and is usually the best way to reduce sound strength, shorten reverberation times, and increase speech clarity and overall hearing comfort.

But for a truly optimal sound environment, you'll also likely need different kinds of sound absorbers placed strategically throughout the space-wall-mounted panels and free-standing dividers are just two examples. In other words, a holistic approach is the best way to reduce the overall sound level and sound propagation in a room. Ecophon is here to help.



06



CIRCULARITY - INNOVATION

Sustainability is more than a word – it's a collective movement to protect people and the planet that requires honest commitment and genuine care. That's why Ecophon is building on better materials, transparency, and principles, to name just a few.

We actively support an industry-wide drive to standardized, easy-access Environmental Product Declarations for individual products, rather than product families. Their inclusion of full lifecycle data, from raw material sourcing to end of life, rather than only the favorable stages. A move away from self-declared labels, or non-independently verified sustainability claims. And for any promises of net zero carbon emission targets to be validated by the Science-Based Targets initiative.

If we're going to build a sustainable future, it has to start with an honest approach, high ambition and the best of intentions – to build on better together.





The possibilities with the fade® Acoustic Plaster is endless. The flexible fade Acoustic Plaster System is discreet alternative to traditional acoustic solutions such as suspended ceilings.

As an acoustic plaster solution spray applied to walls and ceilings, its highly absorbent qualities allow for optimum acoustic control in large, commercial spaces.

The fade[®] acoustic Plaster System can be applied on virtually any surface including straight and curved walls, dramatic angles and arching domes.

- Smooth & Seamless
- Any colour available
- Can be spot repaired invisibly as the only product on the market
- Different installation solutions



Seamless monolithic acoustic solutions with the fade® Acoustic Plaster System. The system can be installed on virtually any surface including straight and curved ceilings, dramatic angles, and arching domes. The fade Acoustic Plaster System is offered in a choice of different finishes and colours to suit design requirements.

fade® OVERVIEW

E	dge Design	Product	Absorption class	Connect grid	Sizes (mm)
	fade® Acoustic Plaster Plus+		A Direct, Suspen		1200x1200x20 1200x1200x25 1200x1200x40
		fade® Acoustic Plaster Albus	A	Direct, Suspended	1200x1200x20 1200x1200x25 1200x1200x40

INSTALLATION METHODS

The fade® Acoustic Plaster System is very flexible and can be installed in different ways.

DIRECT INSTALLATION

The acoustic board is installed directly onto a plasterboard, concrete or timber substrate with either approved adhensive or mechanically fixed with fade Special Washers.

DIRECT TO GRID

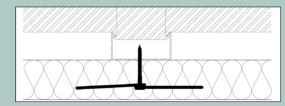
14

The acoustic board is installed directly to a MF metal drywall grid system 400mm(16") c/c or similar with the fade Special Washers.

fade® ACOUSTIC PLASTER WITHOUT AN ACOUSTIC BOARD

The acoustic plaster is sprayed directly onto a primed plasterboard or concrete substrate to a total thickness of 3mm (1/8").









fade® products contribute to a healthy indoor environment with superior acoustic absorption, low VOC emissions in line with the strictest requirements, and a full chemical transparency with verified Health Product Declarations. The low environmental footprint of our fade products is third-party verified in Environmental Product Declarations.



The products do not contribute to fire and the glass wool core of the fade® tiles is tested and classified as non-combustible according to EN ISO 1182. Fire classification according to EN 13501-1, see Technical Properties on respectively product.

NOTE

More product and system information such as installation help and sustainability documentation can be found at www.ecophon.com/exp

INSTALLATION GUIDANCE

Seamless monolithic acoustic solutions with the fade® Acoustic Plaster System. Can be installed on virtually any surface including straight and curved ceilings, dramatic angles, and arching domes.



MECHANICAL INSTALLATION

The acoustic boards are installed to a suitable substrate with tight joints. Installation can be done mechanically with screws and fade® Special Washers 400mm(16")c/c.



The acoustic boards are installed to a suitable substrate with tight joints, Installation can be done with the fade® Special adhesive.



fade[®] SPECIAL JOINT TAPE

fade® Special Joint Tape is applied onto all joints to reinforse the structure.



SPRAYING - 2.LAYER

The second and finishing layer of acoustic plaster is spray applied and troweled to a smooth finish. Tje two layers of acoustic plaster should build 3mm (1/8") in total.



FILLING

Acoustic plaster is applied onto the fade[®] Special Joint Tape and washers to level the surface*.



TROWELING

Trowel both layers of acoustic plaster to a smooth finish.



SPRAYING - 1.LAYER

The first layer of acoustic plaster is spray apllied to a 1.5-2mm thickness(1/3") and troweled to a smooth finish.



SANDING

For a completely smooth finish sand the entire surface until satisfied.

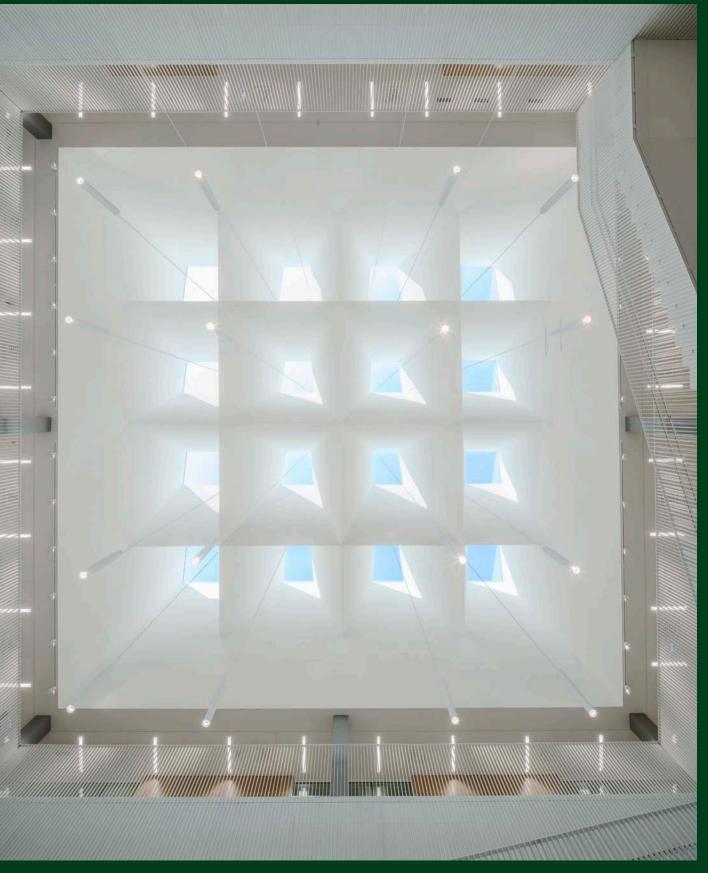
*Acoustic plaster on joints and washers can be given a light sand when dry to remove any irregularities



fade® Acoustic Plaster Plus + Museum of the Future, Dubai, UAE



fade® Acoustic Plaster Plus + Museum of the Future, Dubai, UAE



fade® Acoustic Plaster Albus Jätkäsaari School, Helsinki, Finland

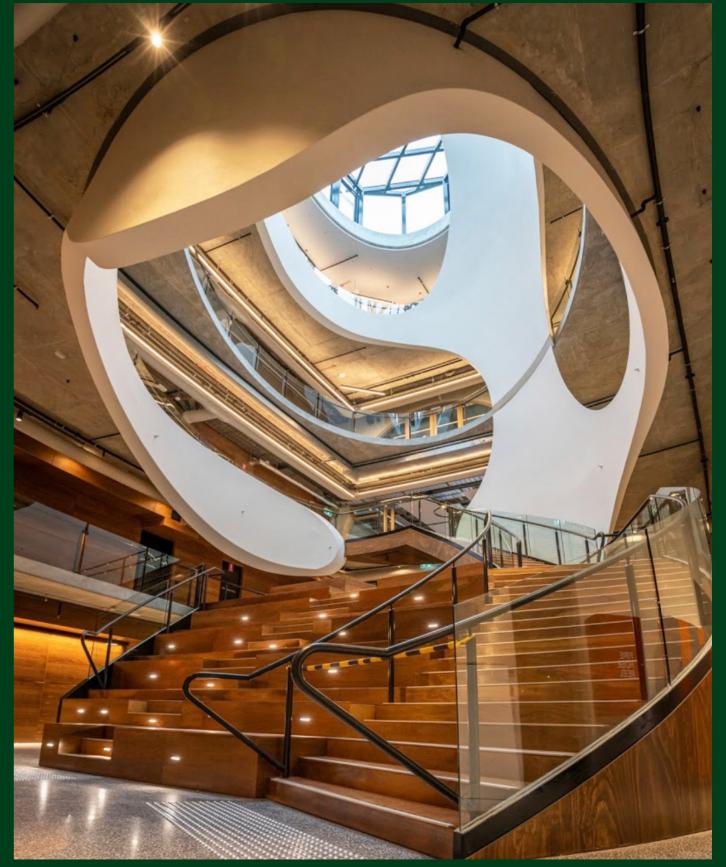




fade® Acoustic Plaster Plus + Le Jules Verne, Eiffel Tower, Paris, France



fade® Acoustic Plaster Albus Commercial Space, Orsted, Denmark



fade® Acoustic Plaster Plus + Victorian Pride Centre, Melbourne, Australia



ACOUSTICS, TECHNICAL PROPERTIES AND INSTALLATION DIAGRAMS

? fade® Acoustic Plaster Plus+ 5 fade® Acoustic Plaster Albus 22

Acoustic:

fade® Acoustic Plaster Albus

 $\alpha_{\scriptscriptstyle D}$, Practical sound absorption coefficient

- --- fade® Albus, 20 mm, 23 mm o.d.s.
- ···· fade® Albus, 25 mm, 28 mm o.d.s.
- fade® Albus, 40 mm, 43 mm o.d.s.
- --- fade® Albus, 20 mm, 200 mm o.d.s.
- fade® Albus, 40 mm, 200 mm o.d.s.

o.d.s = overall depth of system

Frequency Hz

THK mm	o.d.s. mm	$lpha_{ m p}$, Practical sound absorption coefficient						α	Sound absorption class
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	$\alpha_{\scriptscriptstyle \sf W}$	Sound absorption class
20	23	0.10	0.40	0.85	0.90	0.90	0.85	0.70	С
25	28	0.10	0.45	0.90	1.00	0.85	0.75	0.75	С
40	43	0.30	0.80	1.00	1.00	0.95	0.95	1.00	А
20	200	0.50	0.80	0.85	0.80	0.85	0.80	0.85	В
40	200	0.50	0.85	0.95	1.00	0.95	0.95	1.00	А

	THK mm	o.d.s. mm	NRC	SAA
-	25	28	0.80	0.80
-	40	43	1.00	
-	40	200	1.00	

Indoor Air Quality:

Certificate / Label	
Eurofins Indoor Air Comfort®	IA
French VOC	Α
Finnish M1	•

Environmental Footprint: Life-cycle stages A1 to A3 from EPD, in conformity with ISO 14025 / EN 15804 Acoustic boards for fade® 15 mm: 2,79, Acoustic boards for fade® 20 mm: 3,65, Acoustic boards for fade® 25 mm: 4,51, Acoustic boards for fade® 40 mm: 6,01, fade® Albus - Acoustic Plaster: 0,45,

Fire safety: The glass wool core of the tiles is tested and classified as non-combustible according to EN ISO 1182. Europe: EN 13501-1, A2-s1,d0,

Humidity Resistance: Resistance to Humidity (RH 100%, 40°C) - ISO DS/EN 6270-2

Visual appearance: White NCS S 0500-N, CIE Y=79% light reflectance. Gloss < 1

Cleanability: Surface dust and dirt can be vacuumed off using a soft brush attachment or blown off using pressurised air.

Accessibility: The system supports installation of inspection hatch according to installation diagrams.

Installation: Installed according to installation diagrams, installation guides and drawing aid. For information regarding minimum overall depth of system see quantity specification.

System weight: The weight of the system (including suspension grid) should be approximately $M549/M558 \approx 2.5 - 5.2 \text{ kg/m}^2$, $M550/M559 \approx 14.3 - 17 \text{ kg/m}^2$, $M551/M560 \approx 5.3 - 8 \text{ kg/m}^2$.

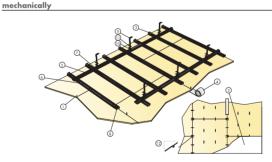
Mechanical properties: Additional load (lighting, ventilation, etc.) should be supported by the suspension system according to the manufacturers recommendation or be hung directly from the soffit.

CE: Ecophon ceiling systems are CE marked according to the European harmonized standard EN13964:2014. CE marked construction products are covered by a Declaration of Performance (DOP) which enables customers and users to easily compare performance of products available on the European market.

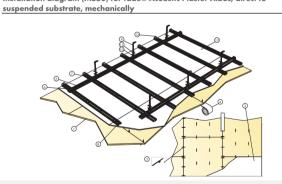
Installation diagram in detail www.ecophon.com

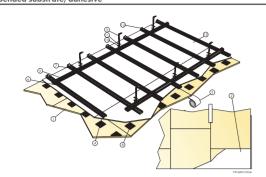
M549 M556 Installation diagram (M549) for fade® Acoustic Plaster Albus, direct, Installation diagram (M556) for fade® Acoustic Plaster Albus, direct, adhesive

Installation diagram (M551) for fade® Acoustic Plaster Albus, direct to grid,



M550 Installation diagram (M550) for fade® Acoustic Plaster Albus, direct to





Z4

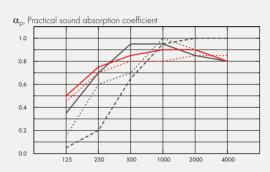
© Ecophon Group fade® Acoustic Plaster Albus, Created: 2023-02-02

fade® Acoustic Plaster Plus+

Acoustic:

Sound Absorption:

Test results according to EN ISO 354. Classification according to EN ISO 11654, and the single value ratings for Noise Reduction Coefficient, NRC and Sound Absorption Average, SAA according to ASTM C 423.



- --- fade® Plus+, 20 mm, 23 mm o.d.s.
- ···· fade® Plus+, 25 mm, 28 mm o.d.s.
- fade® Plus+, 40 mm, 43 mm o.d.s.
- fade® Plus+, 25 mm, 200 mm o.d.s.
- fade® Plus+, 40 mm, 200 mm o.d.s.

o.d.s = overall depth of system

THK	o.d.s. mm	$lpha_{ m p}$, Practical sound absorption coefficient					α	Sound absorption class	
mm		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	$\alpha_{\scriptscriptstyle ext{W}}$	
20	23	0.05	0.20	0.65	0.95	1.00	1.00	0.50	D
25	28	0.15	0.60	0.70	1.00	0.90	0.80	0.80	В
40	43	0.35	0.70	0.95	0.95	0.85	0.80	0.90	А
25	200	0.45	0.70	0.80	0.80	0.85	0.85	0.85	В
40	200	0.50	0.75	0.85	0.90	0.90	0.80	0.90	А

	THK mm	o.d.s. mm	NRC	SAA
-	15	18	0.65	0.64
-	20	23	0.70	0.71
-	25	28	0.80	
-	40	43	0.90	
-	25	200	0.80	
-	40	200	0.85	

Indoor Air Quality:

Certificate / Label					
Eurofins Indoor Air Comfort®	IAC				
French VOC	Α				
Finnish M1	•				

Environmental Footprint: Life-cycle stages A1 to A3 from EPD, in conformity with ISO 14025 / EN 15804 Acoustic boards for fade® 15 mm: 2,79, Acoustic boards for fade® 20 mm: 3,65, Acoustic boards for fade® 25 mm: 4,51, Acoustic boards for fade® 40 mm: 6,01, fade® Plus+ - Acoustic Plaster: 0,40,

© Ecophon Group fade® Acoustic Plaster Plus+, Created:2023-02-02

Fire safety: The glass wool core of the tiles is tested and classified as non-combustible according to EN ISO 1182. Fire test, E 84-11a. Europe: EN 13501-1, A2-s1,d0,

Humidity Resistance: Resistance to Humidity (RH 100%, 40°C) - ISO DS/EN 6270-2

Visual appearance: White NCS S 0300-N, CIE Y=81% light reflectance. Exposure to UV-light - ASTM G 154-16. Gloss < 1

Cleanability: Surface dust and dirt can be vacuumed off using a soft brush attachment or blown off using pressurised air.

Accessibility: The system supports installation of inspection hatch according to installation diagrams.

Installation: Installed according to installation diagrams, installation guides and drawing aid. For information regarding minimum overall depth of system see quantity specification.

System weight: The weight of the system (including suspension grid) should be approximately $M549/M558 \approx 2.5 - 5.2 \text{ kg/m}^2$, $M550/M559 \approx 14.3 - 17 \text{ kg/m}^2$, $M551/M560 \approx 5.3 - 8 \text{ kg/m}^2$.

Mechanical properties: Additional load (lighting, ventilation, etc.) should be supported by the suspension system according to the manufacturers recommendation or be hung directly from the soffit.

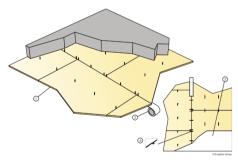
CE: Ecophon ceiling systems are CE marked according to the European harmonized standard EN13964:2014. CE marked construction products are covered by a Declaration of Performance (DOP) which enables customers and users to easily compare performance of products available on the European market.

Installation diagram in detail www.ecophon.com

M558

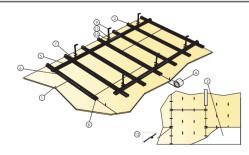
26

Installation diagram (M558) for fade® Acoustic Plaster Plus+, direct to suspended substrate, mechanically



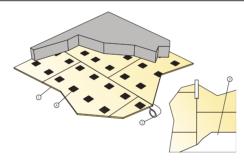
M560

Installation diagram (M560) for fade® Acoustic Plaster Plus+, direct to suspended substrate, adhesive



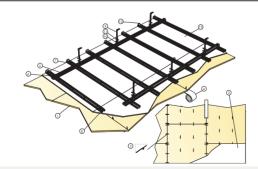
M561

Installation diagram (M561) for fade® Acoustic Plaster Plus+ Direct installation with glue



M559

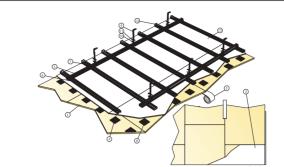
Installation diagram (M559) for fade® Acoustic Plaster Plus+, direct to grid, mechanically



© Ecophon Group fade® Acoustic Plaster Plus+, Created: 2023-02-02

M562

Installation diagram (M562) for fade® Acoustic Plaster Plus+, direct, adhesive



27

© Ecophon Group fade® Acoustic Plaster Plus+, Created:2023-02-02

Ecophon is the leading supplier of indoor acoustic solutions that improve working performance and quality of life. We believe in the difference sound can make to our everyday lives, and are passionate advocates for the importance of room acoustics to people's wellbeing – whatever the space, activity or need.

Having a sound effect on people is the principle that guides all we do. We're proud of the Swedish heritage and human approach that promise is founded on.
Our uncompromising commitment to transparent sustainable practice.
And, as members of the Saint-Gobain Group, to be doing our part in making the world a better home.



