

Ecophon Hygiene™

Sound-absorbing solutions for all hygiene demands



Ecophon®
SAINT-GOBAIN

A SOUND EFFECT ON PEOPLE



Ensuring the required level of purity and cleanliness

In hospitals and other healthcare facilities, a good sound environment is crucial for saving lives as well as rest and recovery. In large industrial premises, a combination of hard, reflective surfaces and loud machines often necessitates the use of hearing protection. However, hearing protection makes it hard to hear alarms, while also making communication almost impossible. In swimming pool areas, the high noise levels don't just take some of the fun away, but also make it tough for lifeguards to identify potentially serious incidents.

A common characteristic of these environments is that they all have specific hygiene demands. This could, for instance, be disinfection, water-resistance or dust-resistance. There may be highly corrosive pollutants in the air. Or maybe all surfaces in the space need to withstand high-pressure washing.

The extensive Ecophon Hygiene™ range offers sound-absorbing solutions that meet all these hygiene demands and more, making sure everyone can experience all the benefits of a workplace with a good sound environment – a workplace that increases wellbeing and performance.

Ecophon – a sound effect on people



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.



Content

Hygiene range guide 4

Find the Hygiene product group that meets your demands.

Cleaning methods 6

Learn more about cleaning methods and which Hygiene products are best suited to your needs.

Functional demands 8

Product properties and performance must conform to building standards, regulations and individual specifications, which take into consideration both present and future activities in the premises.

Product recommendations by room type 16

Here you can find product recommendations for specific rooms, based on acoustic needs and hygiene demands.

Entrances	18	Patient and treatment rooms	24
Cafeterias	18	Critical and specialist areas	24
Frying and boiling	18	Laboratories	24
Preparation, storage, portioning	20	Humid areas and showers	26
Living space, elderly care	20	Swimming pool areas	26
Social space	20	Beverage industry	26
Corridors	22	Electronics industry	28
Nurses' stations	22	Food industry	28
Waiting areas	22	Pharmaceutical industry	28

Product descriptions 30

Technical properties for the Hygiene product groups and their installation methods.

Ecophon Hygiene Clinic™	30	Ecophon Hygiene Performance™	44
Ecophon Hygiene Meditec™	34	Ecophon Hygiene Advance™	56
Ecophon Hygiene Protec™	38	Ecophon Hygiene Lavanda™ LED	64

Service 66

The way to achieve good sound environments and the support Ecophon can offer along the way.



For the latest news on Ecophon, our solutions, design inspiration and the world of acoustics, follow us on: LinkedIn ([linkedin.com/company/ecophon/](https://www.linkedin.com/company/ecophon/)), Facebook ([facebook.com/Ecophon/](https://www.facebook.com/Ecophon/)), Youtube ([youtube.com/EcophonTV](https://www.youtube.com/EcophonTV)) and Twitter (@ecophon).



Hygiene range guide

Find the right product for your needs

Ecophon Hygiene™ covers a comprehensive range of products, suitable for environments with different needs

Use the table on the next page to find the product group that meets your demands. Then continue reading about your chosen group on their respective pages.

Shared properties – Ecophon Hygiene™



Clean room

Zone 4 (NFS 90-351)

Clean room classification ISO 4 (ISO 14644-1) or better

Kinetic class for particle elimination, $CP_{(0,5)}5$ (NFS 90-351) or better

Bacteriological class M1 (NFS 90-351)



Circularity


Fully recyclable













Fire safety

Classification (EN 13501-1), Class: A2-s1,d0

Differentiating properties – Ecophon Hygiene™

		Clinic	Meditec	Protec	Performance	Advance
Range	Installation methods					
 Cleanability	Dusting & vacuum cleaning	●	●	●	●	●
	Wet wiping	●	●	●	●	●
 Advanced cleanability	Steam cleaning	-	-	-	●	●
	Wet cleaning	-	-	-	●	●
	High pressure washing	-	-	-	●	●
	Hydrogen peroxide vapour	●	●	●	●	●
 Surface endurance	Withstand 200 cycles (ISO 11998)	-	●	●	●	●
	Withstand cycles beyond ISO 11998	-	-	-	-	●
 Chemical resistance	Resistant to disinfection chemicals (ISO 11998)	-	●	●	●	●
	Resistant to strong chemicals (ISO 2812-1)	-	-	-	-	●
 Air permeability	Ceiling for areas with air pressure control requirement	-	-	●	-	●
 Humidity resistance	Dry area system, compatible with corrosion class C1 areas	●	●	●	-	-
	High humidity area system, compatible with corrosion class C3 areas	-	-	-	●	●
	Swimming pool area system, compatible with corrosion class C4 areas	-	-	-	●	●
	Constant wet area system, compatible with corrosion class C4 areas	-	-	-	-	●
 Mould and bacteria resistance	Mould, method A (ISO 846)	Class 0	Class 0	Class 0	Class 0	Class 1
	Bacteria, method C (ISO 846)	Class 0	Class 0	Class 0	Class 0	Class 0
 Clean room (Advanced)	Clean room classification ISO 3 (ISO 14644-1)	-	-	●	-	●
	Kinetic particle elimination, CP _{10,5} ¹ (NFS 90-351)	-	-	●	-	●
Page		30	34	38	44	56

-  Properties important for controlled atmosphere areas
-  Property stating that systems are 100% recyclable
-  Property stating fire safety class
-  See next page for more details
-  See next page for more details
-  Surface endurance of scrub cycles with disinfectants

-  Property stating which chemical substances can be used
-  Property stating the permeability of the ceiling in areas that require air pressure control
-  Property stating whether the system is suitable for dry (corrosion class C1), humid (corrosion class C3) and/or wet areas (corrosion class C4). Swimming pool area is displayed separately due to the highly corrosive effects of chloride use
-  Property stating that mould and bacteria do not grow on the product





Cleaning and disinfection

Hygiene maintenance

Ecophon sound absorbers are available for every hygiene demand. To ensure their durability it is important to choose the best solution for your needs, and to know how to clean the products.

Here you can see specific characteristics of the product groups in the Ecophon Hygiene™ family. General recommendations that should always be followed:

- Perform regular maintenance of the ventilation system
- Avoid pressure differences between the plenum and the room
- Wear clean cotton gloves when handling the absorbers

Always refer to the product's technical data sheet to ensure its compatibility with the described cleaning methods. The use of clips on the rear side of the ceiling tiles facilitates cleaning.

Always ensure that the corrosion class of the ceiling grids is compatible with the desired cleaning protocol and cleaning products.

Cleaning and disinfection

		Clinic	Meditec	Protec	Performance	Advance
Range	Installation methods					
 Cleanability	Dusting & vacuum cleaning	Daily	Daily	Daily	Daily	Daily
	Wet wiping	Weekly	Weekly	Weekly	Weekly	Daily
 Advanced cleanability	Steam cleaning	-	-	-	4/year	Daily
	Wet cleaning	-	-	-	2/year ¹	Daily
	High pressure washing	-	-	-	2/year ¹	Daily
	Hydrogen peroxide vapour ²	●	●	●	●	●
 Chemical resistance	Applicable for disinfection chemicals	-	2/year	2/year	2/year	Daily
Page		30	34	38	44	56

1. Not applicable for Ecophon Hygiene Performance™ Ds and Ecophon Hygiene Performance™ Care Wall

2. Method according to supplier of HPV equipment

Cleanability

The common cleaning methods for ceiling tiles require the use of a soft microfibre cloth (made of a minimum of 70% polyester).

Dry cleaning: Wipe with a soft microfibre cloth using gentle circular movements, or use a vacuum cleaner with a soft brush or with a microfibre cloth wrapped around the standard head. Set the suction to a reduced level and vacuum gently, with very soft contact between the cleaner head and the tiles. Vacuum with linear movements.

Wet wiping: Saturate the microfibre cloth with water or with a mild detergent solution suitable for indoor painted surfaces. Wipe with circular movements and moderate pressure.

Advanced cleanability

In demanding environments, ceiling tiles need to be compatible with advanced cleanability, disinfection and scrubbing methods. Specific Ecophon products are designed and tested for these protocols:

Wet cleaning at low pressure: Apply a suitable cleaning foam or gel to the surface, rinse with water and finally wipe the surface dry with a clean, soft microfibre cloth (made of a minimum of 70% polyester). Wipe with gentle circular movements.

Wet cleaning at high pressure: When washing tiles secured with clips, set the pressure to 20-40 bar and keep a distance of at least 0.5 m between the hose and the panel. If a pressure of 40-100 bar needs to be applied, it is recommended to demount the tiles. Lay them on a rigid surface and keep a distance of at least 1 m between the hose and the panel. In all cases, the hose should be held at a 30° angle of incidence. The water temperature should be 20°C. Clean with linear movements.

Steam cleaning: Apply steam to the surface of the panels through a nozzle with an attached soft microfibre cloth (made of minimum 70% polyester). Move the steamer with gentle circular movements.

Disinfection with Hydrogen Peroxide Vapour: According to the test method specified by Bioquell.

Chemical resistance

Specific Ecophon products are designed to withstand use of common detergents and disinfectants. The testing method for these products involves repeated exposure to detergents or disinfectants and evaluation is carried out according to ISO 11998:2006 (Determination of wet-scrub resistance and cleanability of coatings). The testing is done with a soft microfibre cloth made of a minimum of 70% polyester.

The list of tested chemicals can be found on product pages at ecophon.com.

Functional demands and product properties

Ecophon sound-absorbing systems are continuously tested to verify that they perform as intended, withstand relevant hygiene demands and meet applicable standards. Here you can learn more about what to look for when choosing your acoustic solution and specific products.

Acoustics	8	Surface endurance	12
Indoor air quality	9	Mould and bacteria resistance	12
Environmental footprint	10	Clean room	13
Fire safety	10	Air permeability	14
Humidity resistance	11	CE marking	15
Visual appearance	11	Corrosion	15



Acoustics

Acoustics is the term for the study of sound and how sound is perceived. The field of acoustics is divided into several specialist areas, where room acoustics is to do with indoor sound environments.

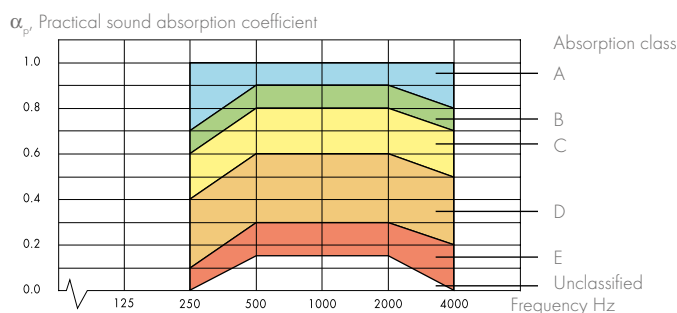
In order to create a healthy sound environment, it is important to use sound absorbers that deliver the desired function. Ecophon Hygiene™ offers absorbers of the highest quality. These absorbers also meet hygiene demands in tough environments.

Absorption Class

Sound absorption qualities are measured at different frequencies, according to EN ISO 354. Each resulting value is defined as a practical sound absorption coefficient, α_p . These values are then weighted to create one α_w value. The α_w value is between 0 and 1, where 1 is the best.

To make it easier to communicate sound absorption qualities, the α_w is used for classifying sound absorbers in classes A–E, according to EN ISO 11654. A is the highest classification.

Absorption classes A–E, according to EN ISO 11654





Sound strength (G)

Sound strength is a measure of the loudness of all sounds that are present in a space. It is expressed in decibels (dB). A high sound strength results in people having to raise their voices to be heard above all the surrounding noise. To lower the sound levels, it is important to use sound absorbers of the highest quality.



Sound propagation

Sound propagation is defined as how much the sound level in a room decreases by distance, measured in decibel per distance doubling. Stopping sound from spreading and making sound levels decrease faster are key aspects of creating good room acoustic comfort.

Articulation Class (AC) is a classification of suspended ceilings, according to ASTM E-1110. A high classification means that more sound is absorbed early and increases privacy. An AC value of 180 is good in a space where background noise and noise levels are the main issue, while an AC value of 200 is preferable in an open-plan office space, where it is important to stop specific (speech) sounds from spreading and disturbing people close by.



Speech clarity (C₅₀)

Wherever people are, there is communication. For this reason, it is important to choose sound absorbing products that enhance communication and make it easy to hear and understand what is being said. Speech clarity (C₅₀) measures how well speech is perceived in a space. The higher the value, the better the speech clarity.



Reverberation time (T₂₀)

Reverberation time is used when measuring basic acoustic qualities of a room. Reverberation time is defined as the time it takes for the sound pressure level to decrease by 60 dB after the sound source has been terminated.



Indoor air quality

Today we spend more than 90% of our time indoors. Consequently, the quality of the indoor air impacts us enormously with regard to both health and performance.

Indoor air pollution can be caused by particles that are released from the materials used in the interior. These are called Volatile Organic Compounds (VOCs).

Building materials can be significant sources of VOCs. Thus, it is crucial to choose products with low emissions. It is also important to make sure that the chosen products do not contain any pollutants that negatively affect health or performance.

The VOC content of Ecophon products is tested by external laboratories in accordance with European regulations. The results of these tests are shown by means of emission labels.





Environmental footprint

In order to get a transparent and scientific view of a product's environmental impact, Ecophon performs a Life Cycle Assessment (LCA) for all products. The assessment takes every step of the product's life into account, from the harvesting of raw materials to production and end of life.



Life Cycle Assessments of Ecophon products are conducted in line with

ISO 14040 and give a fully transparent overview of our environmental impact. The results are presented in standardised documents called Environmental Product Declarations (EPD).

An EPD is a type III environmental declaration. This means it is always revised and certified by a third party. Ecophon EPDs are done in compliance with ISO 14025 and EN 15804. The third-party verification is performed by the Swedish environmental institute IVL.



Fire safety

The fire safety requirements for suspended ceilings depend on the type of room and the building where they are installed. Detailed requirements can be found in your national building regulations.

However, two general requirements can be identified as crucial with respect to suspended ceilings. They both regard the early stages of fire:

1. Suspended ceilings should only make a negligible contribution to the fire development and to the production of smoke.
This is fulfilled by using a ceiling consisting of materials and surface linings complying with at least Euroclass B-s1, d0.
2. Suspended ceilings should not break and/or collapse during the early stages of the fire.
To pass this requirement a ceiling system should be able to withstand a heat exposure of approx. 300°C.

The European fire testing system – Euroclass

The reaction to fire classification system of ceiling products in Europe is based on the Euroclass system, as defined in EN 13501-1. There are 39 classes grouped in 7 main levels; A1, A2, B, C, D, E and F. A1 is the best, while F is for unclassified products and materials.

Most of the classes also include an additional classification regarding smoke production and the occurrence of flaming droplets/particles.

- The classes for smoke are s1, s2 and s3. S1 is the best.
- The classes for flaming droplets and particles are d0, d1 and d2. D0 is the best.

A2-	s1,	d0
1	2	3

- 1 = Main class
- 2 = Smoke production
- 3 = Occurrence of flaming droplets/particles

All Ecophon Hygiene™ products comply with Euroclass A2-s1,d0.



Humidity resistance

Ceiling producers must ensure that the tiles, when installed, are sufficiently strong to support their own weight, as well as any additional point/linear/distributed load.

This is done by testing Flexural Tensile Strength (FTS), according to EN 13964:2014 (Annex F for ceiling tiles and Annex J for Baffles), in determined conditions and classes according to Table 8, EN 13964:2014.

Specific product information can be found on the respective product pages at ecophon.com, and in their respective Declaration of Performance.

Table 8, EN 13964:2014

Class	Conditions
A	Building components exposed to varying relative humidity up to 70 % and varying temperature up to 25 °C but without corrosive pollutants.
B	Building components exposed to varying relative humidity up to 90 % and varying temperature up to 30 °C but without corrosive pollutants.
C	Building components exposed to varying relative humidity up to 95 % and varying temperature up to 30 °C and accompanied by a risk of condensation but without corrosive pollutants.
D	More severe than the above.



Visual appearance

Visual appearance and light have a strong impact on the overall look and feel of a room. Lighter surfaces also create good conditions for cost-efficient lighting.

Light reflectance values for ceilings

The light reflectance of a surface is expressed as a percentage, and states how much of the light is reflected back. In order to get the best efficiency, both for incident daylight and lighting, the ceiling's light reflectance should be high.

Light Reflectance Values are measured in accordance with the standard BS 8493:2008+A1:2010. Measurement values are evaluated with CIE 10-degree Standard Observer (1964) and CIE Standard Illuminant D65.

Gloss

The gloss of a surface means to what extent the surface will reflect impinging light without scattering it. Gloss is expressed as a value for a specific angle of incidence: 20°, 60° or 85°.

The gloss value is normally between 0 and 100, where under 10 is low gloss, 10-70 is medium gloss and above 70 is high gloss. Gloss is evaluated according to relevant standards such as ISO 2813 and ASTM D 523.



Surface endurance

To ensure the durability of the surface after repeated cleaning, specific Ecophon products are evaluated according to ISO 11998:2006 (Determination of wet-scrub resistance and cleanability of coatings).

The evaluation is done after 200 scrubbing cycles with a soft microfibre cloth made of minimum 70% polyester.



Mould and bacteria resistance

Ecophon products are tested to ensure they do not serve as a natural breeding medium for mould and bacteria. The tests are done according to ISO 846:1997 methods A (fungal growth) and C (bacteria).

The ISO 846 standard classifies materials from Class 0 (no growth of microorganisms) to Class 5 (heavy growth of microorganisms). All Ecophon Hygiene™ products are compliant with Class 0 or Class 1.

Specific product information can be found on the respective product pages at ecophon.com.

ISO 846, Method A

This is a method for testing fungal growth. The material is exposed to the elements below, and then evaluated and measured.

- Paecilomyces variotii
- Penicillium funiculosum
- Aspergillus niger
- Gliocladium virens
- Chaetomium globosum

ISO 846, Method C

This is a method for testing resistance to bacteria. The material is exposed to the element below, and then evaluated and measured.

- Pseudomonas aeruginosa



Clean room

All Ecophon Hygiene™ products are classified according to ISO 14644-1:2015 (Classification of air cleanliness by particle concentration). This is to ensure their compatibility with clean room requirements, in terms of the number of airborne particles.

Definition of classes according to ISO 14644-1:2015

ISO class	Particle size					
	> 0.1 µm	> 0.2 µm	> 0.3 µm	> 0.5 µm	> 1 µm	> 5 µm
ISO Class 1	10	2	-	-	-	-
ISO Class 2	100	24	10	4	-	-
ISO Class 3	1,000	237	102	35	8	-
ISO Class 4	10,000	2,370	1,020	352	83	-
ISO Class 5	100,000	23,700	10,200	3,520	832	29
ISO Class 6	1,000,000	237,000	102,000	35,200	8,320	293
ISO Class 7	-	-	-	352,000	83,200	2,930
ISO Class 8	-	-	-	3,520,000	832,000	29,300
ISO Class 9	-	-	-	35,200,000	8,320,000	293,000

All Ecophon Hygiene™ products are also tested to ensure their compatibility with the requirements of the standard NF S 90-351 (Healthcare institutions — Controlled environment areas — Requirements for airborne contamination control).

The standard defines several risk zones, where zone 4 has the highest demands. For a product to be classified for use in a certain risk zone, it needs to be tested for particle emission according to ISO 14644-1 (particle elimination kinetics and air microbiology control).

Definition of risk zones according to NF S 90-351

Class risk	Class clean particle	Kinetic elimination particles	Class clean microbiological
4	ISO 5	CP _(0,5) 5	M1
3	ISO 7	CP _(0,5) 10	M10
2	ISO 8	CP _(0,5) 20	M100

All Ecophon Hygiene™ products are applicable in risk zone 4 areas.

Particle elimination kinetics (particular classes)

Particle elimination is to do with how quickly particles are released after making contact with the product. For instance, CP_(0,5)5 means that when particles with a 0.5µm diameter are projected onto the product, 90% of them are released within 5 minutes.

The standard NF S 90-351 defines three classes, according to whether it takes 5, 10 or 20 minutes to release 90% of the particles.

However, some of our Ecophon Hygiene™ products meet requirements that would be “CP_(0,5)1”, meaning 90% of the particles are released within one minute. This indicates premium particle repellence properties.

Classes kinetics of particle removal at 0,5 µm	Time required to obtain 90% of reduction (min)
CP _(0,5) 20	≤ 20
CP _(0,5) 10	≤ 10
CP _(0,5) 5	≤ 5

Air microbiology control

The testing is done by contaminating the material and then, after incubation, sampling air and surface to check that the material does not allow microbial proliferation. Ecophon Hygiene™ products have been tested for the following species:

- Staphylococcus aureus MRSA
- Escherichia coli
- Candida albicans
- Aspergillus brasiliensis

Specific product information can be found on the respective product pages at ecophon.com.

Definition of microbiological cleanliness classes

Microbiological cleanliness class	Maximum concentration in number of viable particles per cubic meter of air (UFC/m3)
M1	≤1
M10	10
M100	100

Air permeability



Some areas, such as clean rooms, require the indoor air pressure to be controlled.

Some Ecophon systems are designed to limit air leakage at pressure differentials. The declared values are valid for pressure differentials up to 50 Pa at both overpressure and under-pressure, when installed according to the recommended installation diagram.



CE-marking

In compliance with the Construction Product Regulation (CPR 305/2011), Ecophon ceiling systems are CE marked according to the European harmonised standard EN13964:2014.

This standard consolidates methods for product testing, product classification and performance declaration for suspended ceilings.

To improve transparency in terms of product performance, CE marked construction products all have their own Declaration of Performance (DOP). This enables customers and users to easily compare performance of products available on the European market.



Corrosion

The corrosion level of the environment to which building structures are exposed, is classified according to ISO 12944-2.

All Ecophon grid systems are developed to meet the basic level of requirements (C1). Specific products meet higher requirements of the standard (C3 and/or C4):

- C1: dry and ventilated environments
- C3: humid environments with low pollution
- C4: wet environments with high pollution

Connect items are classified according to ISO 12944-2, after tests are performed in accordance with NORDTEST method NT MAT 003. This method specifies stricter testing than ISO 12944-2 requirements.

Additionally, Ecophon grid systems are classified according to EN 13964:2014 to ensure their compatibility with the different classes of exposure defined by the standard. This information can be found in the Declaration of Performance for the Connect products.

Always ensure that the corrosion class of the ceiling grids is compatible with the desired cleaning protocol and the cleaning products used for the ceiling system.

For the latest information, visit www.ecophon.com or contact your nearest Ecophon representative.

A solution for every room with **Activity Based Acoustic Design**

A hospital is very different to, say, an office building, and a pharmaceutical factory is different to a food factory. In the same way, a corridor has very different characteristics to a kitchen. However, if the acoustics are not well-designed in any of these environments, they all have one thing in common: a poor sound environment.

If the ceiling, floor and walls of a space are all covered with hard surfaces, there is nothing to stop sound from spreading. The sound will bounce off all the hard surfaces and spread everywhere, creating a level of background noise that is stressful and tiring for everyone in the space. If someone needs to speak, they have to raise their voice to be heard above the background noise. If more people need to speak, they will automatically speak louder and louder, raising the noise levels still further.

Since all spaces differ from one another, appropriate solutions to the noise problem can vary. For instance, in a bottling factory the main goal will probably be to reduce noise levels dramatically, while the most important thing in an operating room is to increase speech clarity so doctors and nurses can communicate clearly.



Easy method for reaching the optimal solution

In order to design spaces where people can perform a given activity to the best of their ability and feel comfortable while doing it, Ecophon has developed Activity Based Acoustic Design. In practice, this is a method that defines spaces from three perspectives – activity, people and space – and finds the common ground where all these perspectives benefit. The optimal acoustic products are then identified to meet the acoustic and hygiene needs in the space.

On the following pages you will find product recommendations for some areas where both acoustics and hygiene are important. The hygiene demands presented are not complete, and should be seen as guidelines. For all product properties, please see the respective product pages.

1 Activity

What will people be doing in the space?
What are all the activities that will be performed? Will it be noisy? Will equipment and machines be used? Is confidentiality an issue? How much time will be spent communicating?

2 People

Who is involved in the activity? How many people are there? Are they old or young? Do they have special needs?

3 Space

Is the space large or small? Where is it situated, what spaces are next to it and what activities are performed there? Does the building have bare concrete walls, ceilings and floors? Are there fans, alarms or other sources of frequent noise in the space? Are there hygiene requirements to consider?

Product recommendation by room type

Entrances	18	Patient and treatment rooms	24
Cafeterias	18	Critical and specialist areas	24
Preparation, storage, portioning	18	Laboratories	24
Frying and boiling	20	Humid areas and showers	26
Living space, elderly care	20	Swimming pool areas	26
Social space	20	Beverage industry	26
Corridors	22	Electronics industry	28
Nurses' stations	22	Food industry	28
Waiting areas	22	Pharmaceutical industry	28





Entrances

The ideal entrance to a healthcare facility is inviting, comfortable and stress-free. Patients and staff should easily be able to move around, have conversations, ask questions, wait for assistance and find their way.

Product recommendation

Mould and bacteria resistant		Ecophon Hygiene Clinic™ A	30
Mould and bacteria resistant		Ecophon Hygiene Clinic™ E	30
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ A	34
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ E	34
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ A	44

If your room specifications do not include specific hygiene properties, visit www.ecophon.com/productguide

Cafeterias

A canteen or cafeteria is a place where people must be able to relax and enjoy their food and the company of others. Speaking and listening comfort must be high so that everyone, including people with hearing impairments, can participate in the conversation.

Product recommendation

Mould and bacteria resistant		Ecophon Hygiene Clinic™ A	30
Mould and bacteria resistant		Ecophon Hygiene Clinic™ E	30
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ A	34
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ E	34
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ A	44

If your room specifications do not include specific hygiene properties, visit www.ecophon.com/productguide

Preparation, storage, portioning

Food needs to be safely prepared, stored and portioned. The areas in workplaces where these activities are performed have a high level of noise and banging, which can affect employees negatively, causing fatigue, stress and communication problems.

Product recommendation

Easy to clean, high pressure washing 2/year		Ecophon Hygiene Performance™ Plus A	44
Easy to clean, high pressure washing 2/year		Ecophon Hygiene Performance™ Wall	44



Photographer: 123RF, iStockphoto



Photographer: Alamy.com, iStockphoto



Photographer: Petra Appellod





Photographer: Petra Appellod



Frying and boiling

Restaurant and catering kitchens are workplaces with a high level of noise and banging, which can affect employees negatively, causing fatigue, stress and communication problems. Restaurant kitchens are often located next to the dining area, and noise from the kitchen can disturb the diners. At the same time, any acoustic system installed must meet the high cleanability requirements.

Product recommendation



Dirt, grease and chemical resistance, daily high pressure washing		Ecophon Hygiene Advance™ A	56
Dirt, grease and chemical resistance, daily high pressure washing		Ecophon Hygiene Advance™ Wall	56



Living space, elderly care

A personal living space in an elderly care facility should feel safe, private and comfortable. To achieve this, it is important to reduce noise impact. Echoes must be eliminated to ensure that conversations can take place in a normal tone of voice.

Product recommendation

Mould and bacteria resistant		Ecophon Hygiene Clinic™ A	30
Mould and bacteria resistant		Ecophon Hygiene Clinic™ E	30

If your room specifications do not include specific hygiene properties, visit www.ecophon.com/productguide



Social space

Shared living spaces such as living rooms, activity rooms and dining rooms are common in elderly care facilities. Common sound sources in these spaces are people talking, clatter from tableware and TVs. And as with any type of space for the elderly, it is important to consider that users often have hearing impairments.

Product recommendation

Mould and bacteria resistant		Ecophon Hygiene Clinic™ A	30
Mould and bacteria resistant		Ecophon Hygiene Clinic™ E	30







If your room specifications do not include specific hygiene properties, visit www.ecophon.com/productguide



Corridors

Corridors are busy areas, and sound will spread along their length and into adjoining rooms. Much of the communication between staff takes place in corridors.

Product recommendation







Mould and bacteria resistant		Ecophon Hygiene Clinic™ A	30
Mould and bacteria resistant		Ecophon Hygiene Clinic™ E	30
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ A	34
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ E	34
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ A	44
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ Care Wall	44

If your room specifications do not include specific hygiene properties, visit www.ecophon.com/productguide

Nurses stations

Often open plan nurse stations provide a specific working space for staff when they are not with patients. They are often the first point of call for visitors at a ward and the place where staff assemble for meetings and handovers.

Product recommendation

Mould and bacteria resistant		Ecophon Hygiene Clinic™ A	30
Mould and bacteria resistant		Ecophon Hygiene Clinic™ E	30
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ A	34
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ E	34
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ A	44
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ Care Wall	44

If your room specifications do not include specific hygiene properties, visit www.ecophon.com/productguide

Waiting areas

Waiting areas are often located in a corridor or an open space. Many waiting rooms have a counter where people can speak to the nurse or administrative staff. Patients and staff should easily be able to have private conversations without the risk of being overheard.

Product recommendation

Mould and bacteria resistant		Ecophon Hygiene Clinic™ A	30
Mould and bacteria resistant		Ecophon Hygiene Clinic™ E	30
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ A	34
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ E	34
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ A	44
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ Care Wall	44

If your room specifications do not include specific hygiene properties, visit www.ecophon.com/productguide



Photographer: Richard Johnson/Studio.se









Photographer: Hans Georg Esch

Photographer: Studio.se

Patient and treatment rooms

Recovering in peace and quiet. Rest and sleep are important aspects of our health and everyday life, but never as important as when we are ill or have undergone surgery and need to heal. For this reason, treatment and patient rooms should be designed to promote good quality of sleep, comfort and privacy.









Product recommendation

Mould and bacteria resistant		Ecophon Hygiene Clinic™ A	30
Mould and bacteria resistant		Ecophon Hygiene Clinic™ E	30
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ A	34
Mould and bacteria resistant, resist disinfection chemicals		Ecophon Hygiene Meditec™ E	34
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ A	44
Mould and bacteria resistant, resist disinfection chemicals, easy to clean		Ecophon Hygiene Performance™ Care Wall	44
Mould and bacteria resistant, resist disinfection chemicals, particle repellence		Ecophon Hygiene Protec™ A	38
Mould and bacteria resistant, resist disinfection chemicals, particle repellence, concealed grid		Ecophon Hygiene Protec™ Ds	38

Critical and specialist areas

There are many areas in a hospital that must meet high acoustic and hygiene standards, such as operating suites, intensive care facilities and emergency rooms.









Product recommendation

Wet cleaning, steam cleaning, easy to clean, resist disinfection chemicals		Ecophon Hygiene Performance™ Plus A	44
Wet cleaning, steam cleaning, easy to clean, resist disinfection chemicals		Ecophon Hygiene Performance™ Wall	44
Wet cleaning, steam cleaning, easy to clean, resist disinfection chemicals, air pressure control		Ecophon Hygiene Advance™ A	56
Wet cleaning, steam cleaning, easy to clean, resist disinfection chemicals		Ecophon Hygiene Advance™ Wall	56
Easy to clean, resist disinfection chemicals		Ecophon Hygiene Performance™ Care Wall	44
Particle repellence, resist disinfection chemicals		Ecophon Hygiene Protec™ A	38
Particle repellence, resist disinfection chemicals, concealed grid		Ecophon Hygiene Protec™ Ds	38
Particle repellence, resist disinfection chemicals, air pressure control		Ecophon Hygiene Protec™ Air A	38

Laboratories

Laboratories are complex spaces where staff members work together analysing samples or data. Cleanliness, air pressure and air particles often need to be controlled to avoid risk of contamination.

Product recommendation

Particle repellence, resist disinfection chemicals		Ecophon Hygiene Protec™ A	38
Particle repellence, resist disinfection chemicals, concealed grid		Ecophon Hygiene Protec™ Ds	38
Particle repellence, resist disinfection chemicals, air pressure control		Ecophon Hygiene Protec™ Air A	38
Steam cleaning, easy to clean, resist disinfection chemicals		Ecophon Hygiene Performance™ Plus A	44
Steam cleaning, easy to clean, wet cleaning, resist disinfection chemicals		Ecophon Hygiene Performance™ Wall	44
Easy to clean, resist disinfection chemicals		Ecophon Hygiene Performance™ Care Wall	44
Steam cleaning, easy to clean, resist disinfection chemicals, air pressure control		Ecophon Hygiene Advance™ A	56
Steam cleaning, easy to clean, resist disinfection chemicals		Ecophon Hygiene Advance™ Wall	56



Humid areas and showers

Some areas need solutions with a tolerance for high humidity, such as sterile/cleaning/disinfection rooms and showers.

Product recommendation

Splash proof surface, concealed grid		Ecophon Hygiene Performance™ Ds	44
Splash proof surface, wet cleaning, high pressure washing 2/year		Ecophon Hygiene Performance™ A	44
Splash proof surface, wet cleaning, high pressure washing 2/year		Ecophon Hygiene Performance™ Baffle	44
Splash proof surface, wet cleaning, high pressure washing 2/year		Ecophon Hygiene Performance™ Wall	44
Splash proof surface, daily wet cleaning and high pressure washing		Ecophon Hygiene Advance™ A	56
Splash proof surface, daily wet cleaning and high pressure washing		Ecophon Hygiene Advance™ Baffle	56
Splash proof surface, daily wet cleaning and high pressure washing		Ecophon Hygiene Advance™ Wall	56

Swimming pool areas

Swimming pool areas are often very lively and noisy places where sound bounces off the hard surfaces. It is important to remember that these environments are not only for fun and games, but are also workplaces for the staff. Swimming pool environments are highly corrosive due to chloride pollution. Therefore all grids and accessories must be designed and tested to be suitable for areas classified as C4 according to the corrosion standards in EN-ISO 12944-2.

Product recommendation







Splash proof surface, wet cleaning, high pressure washing 2/year		Ecophon Hygiene Performance™ A	44
Splash proof surface, wet wiping, concealed grid		Ecophon Hygiene Performance™ Ds	44
Splash proof surface, wet cleaning, high pressure washing 2/year		Ecophon Hygiene Performance™ Baffle	44
Splash proof surface, daily wet cleaning and high pressure washing		Ecophon Hygiene Advance™ A	56

For showers; see Humid areas and showers

Beverage industry

Due to high cleanability requirements, production environments in beverage factories typically contain bare, hard surfaces. Bottling lines, filling lines and conveyor belts combined with open spaces generate very high noise levels and echo effects.

Product recommendation

Easy to clean, weekly wet wiping, high pressure washing 2/year		Ecophon Hygiene Performance™ Plus A	44
Easy to clean, weekly wet wiping, high pressure washing 2/year		Ecophon Hygiene Performance™ Baffle	44
Easy to clean, weekly wet wiping, high pressure washing 2/year		Ecophon Hygiene Performance™ Wall	44
Dirt, grease and chemical resistance, daily high pressure washing		Ecophon Hygiene Advance™ A	56
Dirt, grease and chemical resistance, daily high pressure washing		Ecophon Hygiene Advance™ Baffle	56
Dirt, grease and chemical resistance, daily high pressure washing		Ecophon Hygiene Advance™ Wall	56



Photographer: Marcin Zaglinski/Shutterstock



Photographer: Teddy Stankovic/Shutterstock



Photographer: Teddy Stankovic/Shutterstock



Photographer: © Shutterstock, Alexander Raths



Electronics industry

In electronics factories, the walls, floors and ceilings have hard surfaces to facilitate cleaning. In combination with the continuous background noise such as humming and pneumatic hiss, this affects employees negatively, resulting in reduced concentration and lowered productivity. Any sound-absorbing system installed must follow the ISO 14644-1 standard regarding air particle levels.





Product recommendation

Particle repellence, weekly wet wiping		Ecophon Hygiene Protec™ A	38
Particle repellence, weekly wet wiping, concealed grid		Ecophon Hygiene Protec™ Ds	38
Particle repellence, weekly wet wiping, air pressure control		Ecophon Hygiene Protec™ Air A	38
Chemical resistance, enclosed tile, daily wet cleaning		Ecophon Hygiene Advance™ A	56

Food industry

Production environments in the food industry typically contain hard surfaces and open spaces to permit good food hygiene practices. Production lines for preparation, filling, packing, freezing and preservation of food generate a high level of noise, which is then reflected and spread by the hard surface materials.

Product recommendation

Easy to clean, weekly wet wiping, high pressure washing 2/year		Ecophon Hygiene Performance™ Plus A	44
Easy to clean, weekly wet wiping, high pressure washing 2/year		Ecophon Hygiene Performance™ Baffle	44
Easy to clean, weekly wet wiping, high pressure washing 2/year		Ecophon Hygiene Performance™ Wall	44
Dirt, grease and chemical resistance, daily high pressure washing		Ecophon Hygiene Advance™ A	56
Dirt, grease and chemical resistance, daily high pressure washing		Ecophon Hygiene Advance™ Baffle	56
Dirt, grease and chemical resistance, daily high pressure washing		Ecophon Hygiene Advance™ Wall	56

Pharmaceutical industry

Effective cleaning of premises is crucial in pharmaceutical production. However, the hard, bare surfaces and materials combined with loud mechanical processes create a noisy environment. At the same time, any sound-absorbing system installed must meet the high hygiene requirements and comply with GMP classifications.

Product recommendation Packaging, storage

Particle repellence, disinfection and weekly wet wiping		Ecophon Hygiene Protec™ A	38
---	--	---------------------------	-----------

Product recommendation GMP class A to D

Particle repellence, disinfection and weekly wet wiping, concealed grid		Ecophon Hygiene Protec™ Ds	38
Particle repellence, disinfection and weekly wet wiping, areas with air pressure control		Ecophon Hygiene Protec™ Air A	38
Chemical resistance, enclosed tiles, daily wet cleaning/disinfection		Ecophon Hygiene Advance™ A	56

For Laboratory; see Laboratory page 25



Photographer: Perini Venezia

Ecophon Hygiene Clinic™

Dry areas – dry and wet wiping

Ecophon Hygiene Clinic™ are standard class A sound-absorbing ceilings for dry areas.

The absorbers have low emission levels, thus ensuring high indoor air quality. They are resistant to mould and bacteria growth and withstand HPV cleaning.

Shared properties – Ecophon Hygiene Clinic™



Accessibility

Minimum demounting depth according to installation diagrams

Demountable



Visual appearance



Surface: Akutex™ T

White 500, nearest NCS colour sample S 0500-N,
Light reflectance: 84%












Fire safety

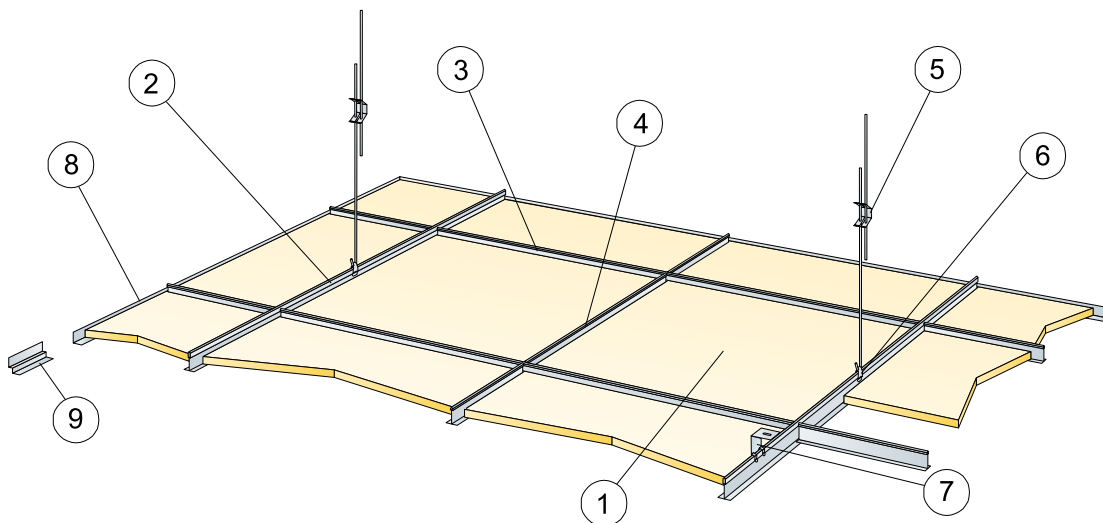
Classification (EN 13501-1)

Class: A2-s1,d0

Differentiating properties – Ecophon Hygiene Clinic™

		A	E
Range	Installation methods		
	Size, thickness (mm)	600x600x15 1200x600x15	600x600x15 1200x600x15
	Visual experience	Visual grid	Recessed grid
	Edge treatment	Primed	Painted
	Weight of system (approx.)	2.5 kg/m ²	2.5 kg/m ²
	Back treatment of the tile	Glass tissue	Glass tissue
 Acoustic	Sound absorption (α_w)	0.95	1.00
 Cleanability	Dusting & vacuum cleaning	Daily	Daily
	Wet wiping	Weekly	Weekly
 Advanced cleanability	Hydrogen peroxide vapour	●	●
 Environmental footprint	Kg CO ₂ equiv/m ² (ISO 14025, EN 15804)	2,99	3,12
 Humidity resistance	Dry area system, compatible with corrosion class C1 areas	●	●
 Clean room		Clean room classification ISO 4 (ISO 14644-1) and Zone 4 (NFS 90-351)	
		Bacteriological class M1 (NFS 90-351)	
		Kinetic class for particle elimination CP _(0,5) 5 (NFS 90-351)	
 Mould and bacteria resistance		Mould, Class 0, method A (ISO 846)	
		Bacteria, Class 0, method C (ISO 846)	

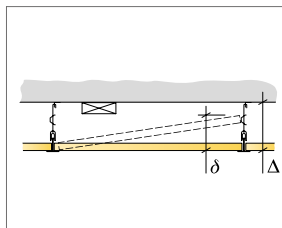




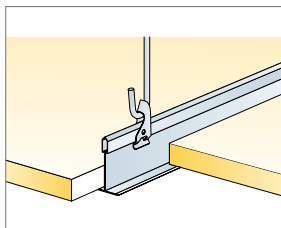
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

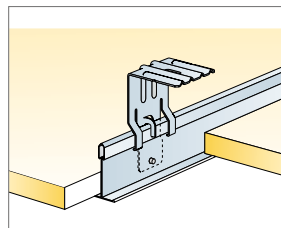
		Size, mm	
		600x600	1200x600
1	Hygiene Clinic A	2,8/m ²	1,4/m ²
2	Connect T24 Main Runner, installed at 1200 mm centres (max distance from wall 300 mm)	0,9m/m ²	0,9m/m ²
3	Connect T24 Cross Tee, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4	Connect T24 Cross Tee, L=600 mm	0,9m/m ²	-
5	Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
6	Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7	For direct installation: Connect Direct Bracket, installed at 1200 mm centres	0,7/m ²	0,7/m ²
8	Connect Angle Trim, fixed at 300 mm centres	as required	as required
9	Connect Shadow-line Trim, fixed at 300 mm centres	as required	as required
Δ Min. overall depth of system, with adjustable hanger: 100 mm, with direct bracket: 50 mm		-	-
δ Min. demounting depth: 120 mm		-	-



See Quantity Specification



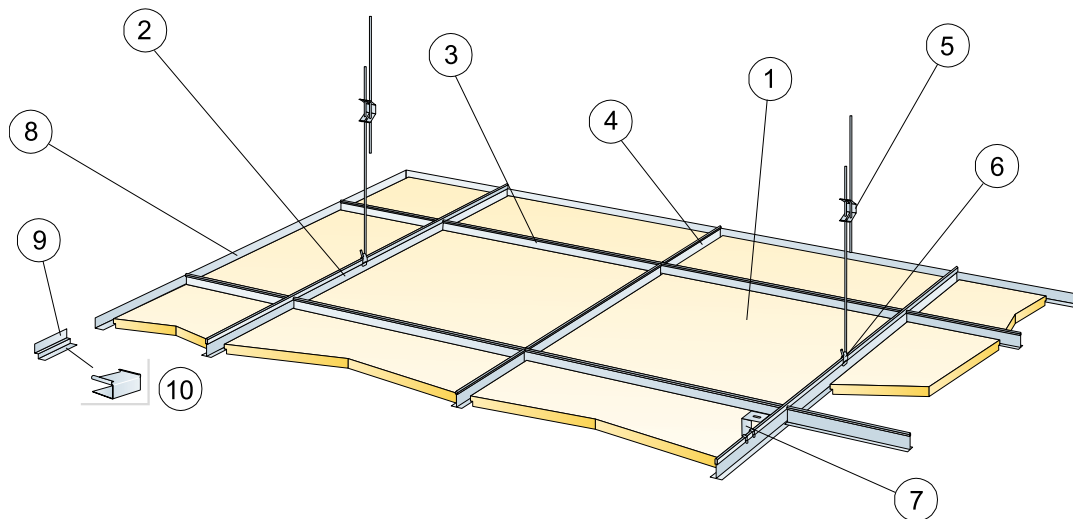
Suspension with Connect Adjustable Hanger and Connect Hanger Clip



Suspension with Connect Direct Bracket

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

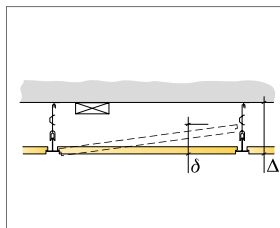
Live load/load bearing capacity



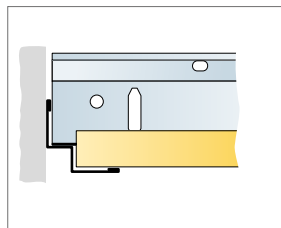
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

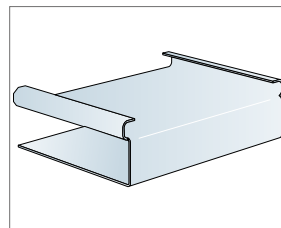
		Size, mm	
		600x600	1200x600
1	Hygiene Clinic E	2,8/m ²	1,4/m ²
2	Connect T24 Main Runner, installed at 1200 mm centres (max distance from wall 300 mm)	0,9m/m ²	0,9m/m ²
3	Connect T24 Cross Tee, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4	Connect T24 Cross Tee, L=600 mm	0,9m/m ²	-
5	Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
6	Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7	For direct installation: Connect Direct Bracket, installed at 1200 mm centres	0,7/m ²	0,7/m ²
8	Connect Angle Trim, fixed at 300 mm centres	as required	as required
9	Connect Shadow-line Trim, fixed at 300 mm centres	as required	as required
10	Connect Eplug (for Connect Shadow-line Trim)	as required	as required
Δ Min. overall depth of system, with adjustable hanger: 110 mm, with direct bracket: 60 mm		-	-
δ Min. demounting depth: T15: 110 mm, T24: 90 mm		-	-



See Quantity Specification



Straight cut and T-profile on top of Connect Shadow-line Trim



Connect Eplug

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

Live load/load bearing capacity



Ecophon Hygiene Meditec™

Dry areas – disinfection on a regular basis

Ecophon Hygiene Meditec™ are class A sound-absorbing ceilings for dry areas where disinfection and/or cleaning is required on a regular basis.

The surface is resistant to common detergents and disinfectants. The absorbers have low emission levels, thus ensuring high indoor air quality. They are resistant to mould and bacteria growth and withstand HPV cleaning.

Shared properties – Ecophon Hygiene Meditec™



Accessibility

Minimum demounting depth according to installation diagrams

Demountable



Visual appearance



Surface: Akutex™ TH

White 500, nearest NCS colour sample S 0500-N,
Light reflectance: 84%














Fire safety

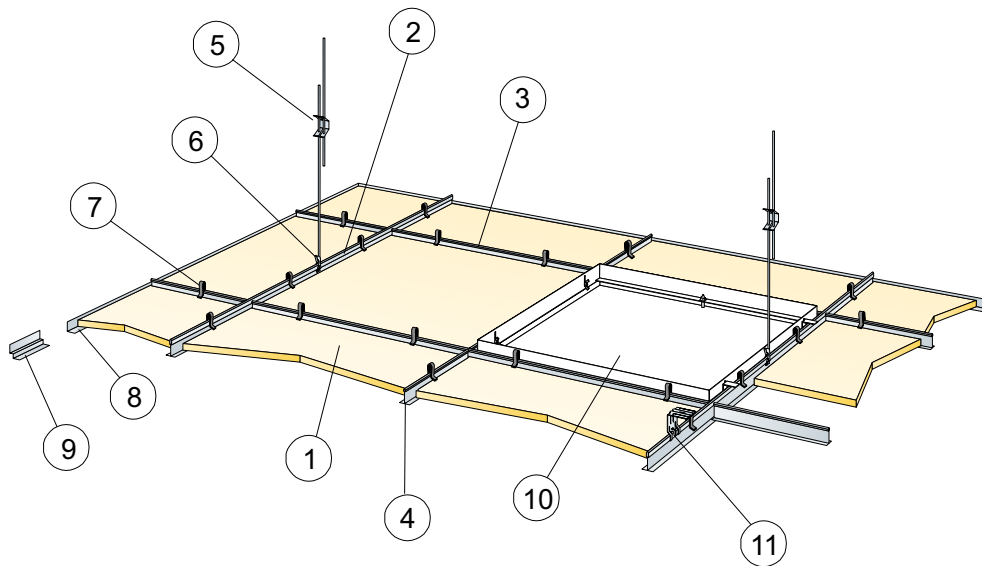
Classification (EN 13501-1)

Class: A2-s1, d0

Differentiating properties – Ecophon Hygiene Meditec™

		A	E
Range	Installation methods		
	Size, thickness (mm)	600x600x15 1200x600x15	600x600x15 1200x600x15
	Visual experience	Visual grid	Recessed grid
	Edge treatment	Primed	Painted
	Weight of system (approx.)	2.5 kg/m ²	2.5 kg/m ²
	Back treatment of the tile	Glass tissue	Glass tissue
 Acoustic	Sound absorption (α_w)	0.95	1.00
 Cleanability	Dusting & vacuum cleaning	Daily	Daily
	Wet wiping	Weekly	Weekly
 Advanced cleanability	Hydrogen peroxide vapour	•	•
 Surface endurance	Withstand 200 cycles (ISO 11998)	•	•
 Chemical resistance	Resistant to disinfection chemicals (ISO 11998)	2/year	2/year
 Environmental footprint	Kg CO ₂ equiv/m ² (ISO 14025, EN 15804)	3,98	4,01
 Humidity resistance	Dry area system, compatible with corrosion class C1 areas	•	•
 Clean room		Clean room classification ISO 4 (ISO 14644-1) and Zone 4 (NFS 90-351)	
		Bacteriological class M1 (NFS 90-351)	
		Kinetic class for particle elimination CP _(0,5) 5 (NFS 90-351)	
 Mould and bacteria resistance		Mould, Class 0, method A (ISO 846)	
		Bacteria, Class 0, method C (ISO 846)	





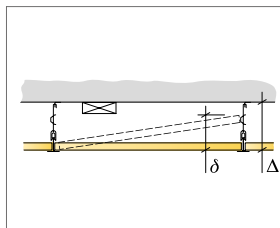
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

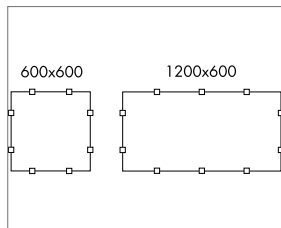
		Size, mm	
		600x600	1200x600
1	Hygiene Meditec A	2,8/m ²	1,4/m ²
2	Connect T24 Main Runner, installed at 1200 mm centres (max distance from wall 300 mm)	0,9m/m ²	0,9m/m ²
3	Connect T24 Cross Tee, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4	Connect T24 Cross Tee, L=600 mm	0,9m/m ²	-
5	Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
6	Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7	Connect Universal Clip	11/m ²	7/m ²
8	Alt. Connect Angle Trim, fixed c300	as required	as required
9	Alt. Connect Shadow-line Trim, fixed c300	as required	as required
10	Connect Inspection Hatch	as required	as required
11	For direct installation: Connect Direct Bracket, installed at 1200 mm centres	0,7/m ²	0,7/m ²

Δ Min. overall depth of system, with adjustable hanger and clip: 150 mm, with direct fixing without clip: 50 mm.

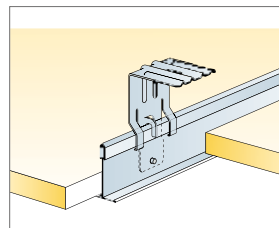
δ Min. demounting depth: With clip: 150 mm. Without clip: 100 mm.



See Quantity Specification



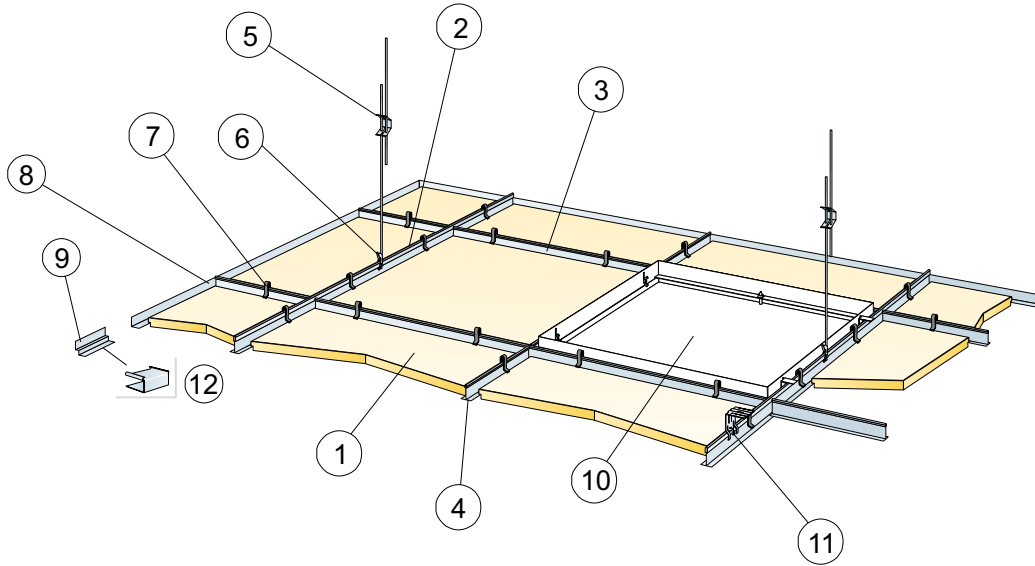
Arrangement of clips



Suspension with Connect Direct Bracket

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

Live load/load bearing capacity



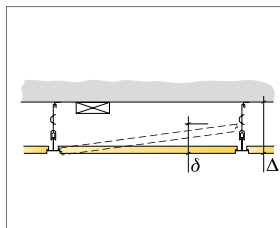
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

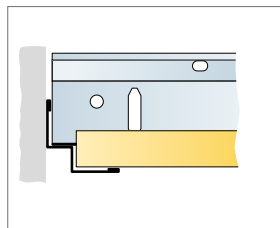
		Size, mm	
		600x600	1200x600
1	Hygiene Meditec E	2,8/m ²	1,4/m ²
2	Connect T24 Main Runner, installed at 1200 mm centres (max distance from wall 300 mm)	0,9m/m ²	0,9m/m ²
3	Connect T24 Cross Tee, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4	Connect T24 Cross Tee, L=600 mm	0,9m/m ²	-
5	Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
6	Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7	Connect Universal Clip	11/m ²	7/m ²
8	Alt. Connect Angle Trim, fixed c300	as required	as required
9	Alt. Connect Shadow-line Trim, fixed c300	as required	as required
10	Connect Inspection Hatch	as required	as required
11	For direct installation: Connect Direct Bracket, installed at 1200 mm centres	0,7/m ²	0,7/m ²
12	Connect E-plug (for Connect Shadow-line Trim)	as required	as required

Δ Min. overall depth of system, with adjustable hanger and clip: 160 mm, with direct fixing without clip: 60 mm.

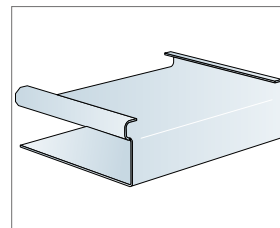
δ Min. demounting depth: With clip: 160 mm. Without clip: 110 mm.



See Quantity Specification



Straight cut and T-profile on top of Connect Shadow-line Trim



Connect E-plug

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

Live load/load bearing capacity



Photographer: Zeglinski/Studio.se



Photographer: Bodo Appelhof

Ecophon Hygiene Protec™

Clean rooms – disinfection on a regular basis

Ecophon Hygiene Protec™ are particle repellent sound-absorbing ceilings for clean rooms where disinfection and/or cleaning is required on a regular basis.

The ceilings are classified ISO 3 according to ISO 14644-1. The surface is resistant to common detergents and disinfectants. The absorbers have low emission levels, thus ensuring high indoor air quality. They are resistant to mould and bacteria growth and withstand HPV cleaning. Ecophon Hygiene Protec™ Air A is specifically designed for areas where air pressure control is required.

Shared properties – Ecophon Hygiene Protec™



Accessibility

Minimum demounting depth according to installation diagrams

Demountable



Visual appearance



Surface: Akutex™ HP

White 500, nearest NCS colour sample S 0500-N, Light reflectance: 84%



Fire safety

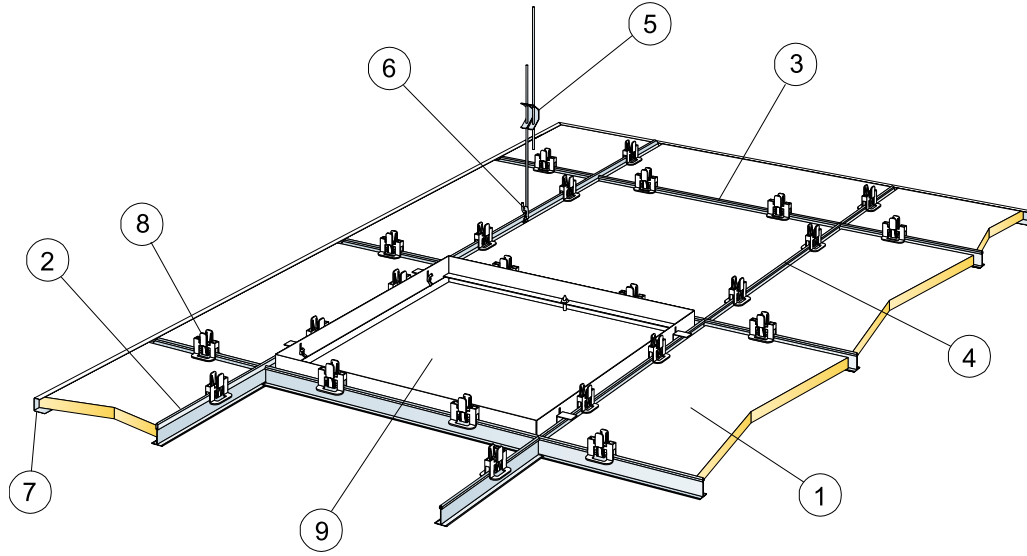
Classification (EN 13501-1)

Class: A2-s1, d0

Differentiating properties – Ecophon Hygiene Protec™

		A	Ds	Air A
Range	Installation methods			
	Size, thickness (mm)	600x600x20 1200x600x20	600x600x20 1200x600x20	600x600x20 1200x600x20 600x600x40 1200x600x40
	Visual experience	Visual grid	Concealed grid	Visual grid
	Edge treatment	Painted	Painted	Painted
	Weight of system (approx.)	3-4 kg/m ²	3-4 kg/m ²	3.5 kg/m ² , 20 mm 4.5 kg/m ² , 40 mm
	Back treatment of the tile	Hygiene surface	Hygiene surface	Air pressure control surface
 Acoustic	Sound absorption (α_w)	0.9	0.85	0.80, 20 mm 0.90, 40 mm
 Cleanability	Dusting & vacuum cleaning	Daily	Daily	Daily
	Wet wiping	Weekly	Weekly	Weekly
 Advanced cleanability	Hydrogen peroxide vapour	●	●	●
 Surface endurance	Withstand 200 cycles (ISO 11998)	●	●	●
	Back of tile withstand 200 cycles (ISO 11998)	●	●	-
 Chemical resistance	Resistant to disinfection chemicals (ISO 11998)	2/year	2/year	2/year
 Air permeability	Air leakage rate m ³ /(h x m ² x Pa). Valid for pressure differentials up to 50 Pa	-	-	0.3, 20 mm 0.2, 40 mm
 Environmental footprint	Kg CO ₂ equiv/m ² (ISO 14025, EN 15804)	4,47	4,56	3,91, 20 mm 6,75, 40 mm
 Humidity resistance	Dry area system, compatible with corrosion class C1 areas	●	●	●
 Clean room (Advanced)	Clean room classification ISO 3 (ISO 14644-1) and Zone 4 (NFS 90-351)			
	Bacteriological class M1 (NFS 90-351)			
	Kinetic particle elimination, CP _{0,51} 1 (NFS 90-351)			
 Mould and bacteria resistance	Mould, Class 0, method A (ISO 846)			
	Bacteria, Class 0, method C (ISO 846)			

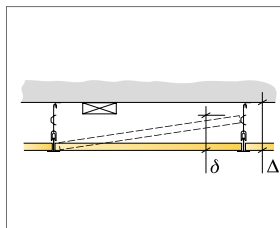




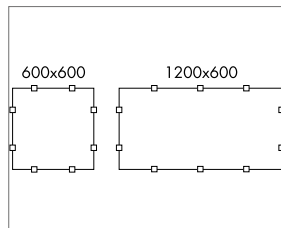
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

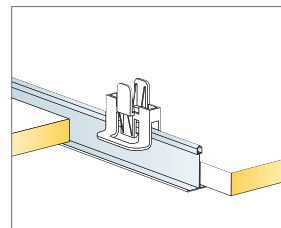
	Size, mm	
	600x600	1200x600
1 Hygiene Protec A	2,8/m ²	1,4/m ²
2 Connect T24 Main Runner, installed at 1200 mm centres (max distance from wall 300 mm)	0,9m/m ²	0,9m/m ²
3 Connect T24 Cross Tee, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4 Connect T24 Cross Tee, L=600 mm	0,9m/m ²	-
5 Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
6 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7 Connect Channel Trim, fixed c300	as required	as required
8 Connect Hygiene Clip 20	11/m ²	7/m ²
9 Connect Inspection Hatch	as required	as required
Δ Min. overall depth of system: 150 mm		
δ Min. demounting depth: 150 mm		



See Quantity Specification



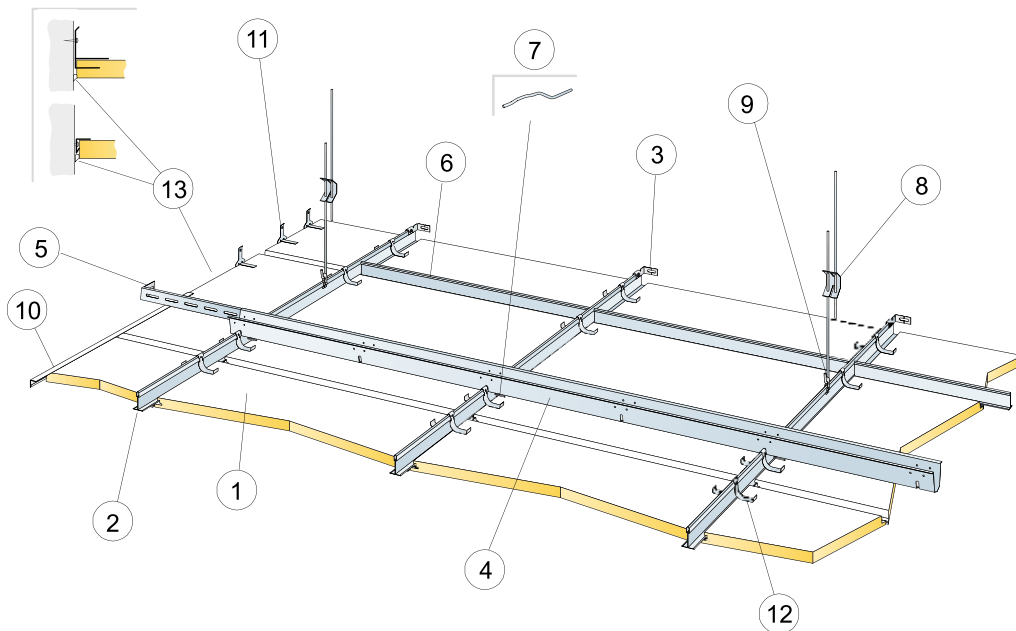
Arrangement of clips



Connect Hygiene Clips for keeping tiles in position

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

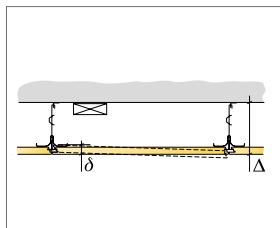
Live load/load bearing capacity



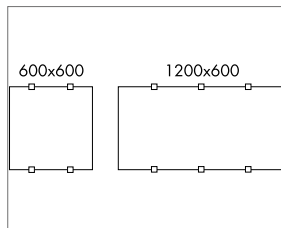
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

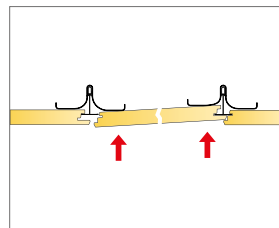
		Size, mm	
		600x600	1200x600
1	Hygiene Protec Ds	2,8/m ²	1,4/m ²
2	Connect T24 Main Runner HD, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
3	Connect Wall Bracket for T-profiles	1/suspended row of Main runner	
4	Connect Space Bar, installed at 1500 mm centres (max. distance from wall 300 mm)	0,7m/m ²	0,7m/m ²
5	Connect Wall Bracket, L=700 mm, for Connect Space bar	1/row of Space bar	
6	Connect T24 Cross Tee, L=600 mm	2/row of Main runner	
7	Connect Space Bar Winch, installed one per joint Connect Main Runner/Connect Space Bar	1,4/m ²	1,4/m ²
8	Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
9	Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
10	Alt. Connect Frieze Trim, fixed c300 mm	as required	as required
11	Connect Frieze Bracket, installed at 500 mm centre. Minimum free depth above tile 150 mm.	2/cut tile with one bearing edge	3/cut tile with one bearing edge
12	Connect Hold Down Clip Ds	2/tile, 50-100 mm from corners	3/tile, 50-100 mm from corners
13	Joint sealant (not supplied by Ecophon)	as required	as required
Δ Min. overall depth of system: 170 mm			
δ Min. demounting depth: 30 mm			



See Quantity Specification



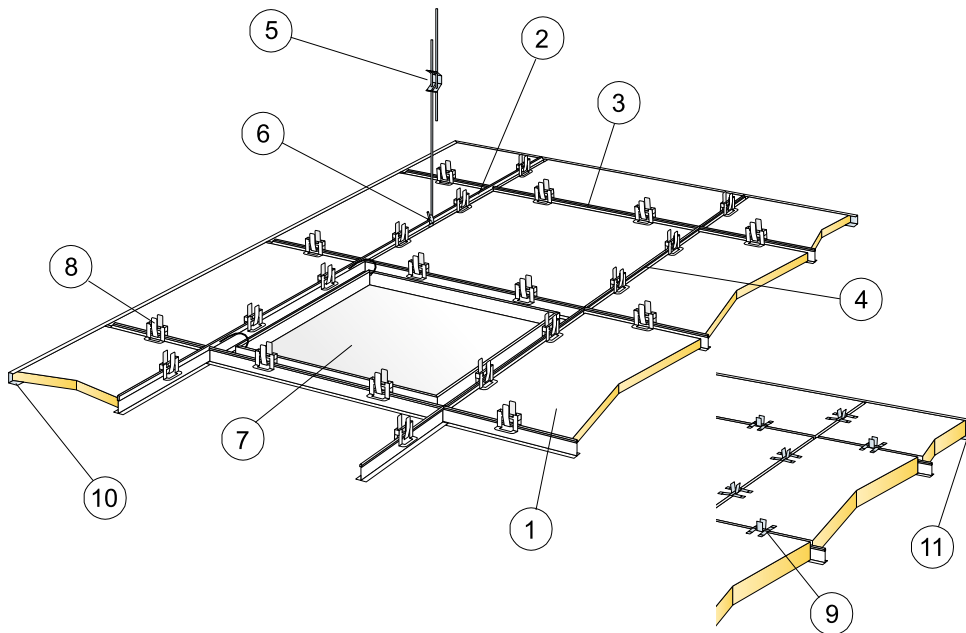
Arrangement of clips



Demounting of tile from below

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

Live load/load bearing capacity



© Ecophon Group

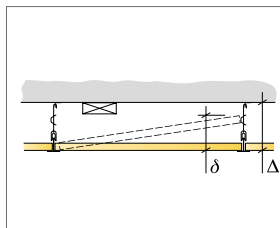
QUANTITY SPECIFICATION (EXCL. WASTAGE)

	Size, mm	
	600x600	1200x600
1 Hygiene Protec Air A	2,8/m ²	1,4/m ²
2 Connect T24 Main Runner, installed at 1200 mm centres (max distance from wall 300 mm)	0,9m/m ²	0,9m/m ²
3 Connect T24 Cross Tee, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4 Connect T24 Cross Tee, L=600 mm	0,9m/m ²	-
5 Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
6 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7 Connect Inspection Hatch C3	as required	as required
8 Connect Hygiene Clip 20	11/m ²	7/m ²
9 Connect Hygiene Clip 40	11/m ²	7/m ²
10 Connect Channel Trim, fixed c300 (for 20 mm thickness)	as required	as required
11 Connect Channel Trim, fixed c300 (for 40 mm thickness)	as required	as required

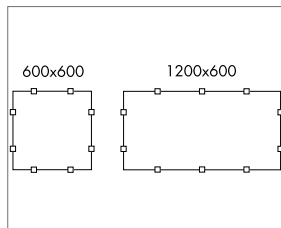
Δ Min. overall depth of system: 150 mm

δ Min. demounting depth 20 mm: 150 mm

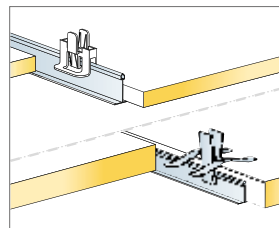
δ Min. demounting depth 40 mm: 170 mm



See Quantity Specification



Arrangement of clips



Clip for keeping tiles in place for 20/40 mm tiles

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

Live load/load bearing capacity





Ecophon Hygiene Performance™

Humid areas – advanced cleaning

Ecophon Hygiene Performance™ are easy-to-clean, sound-absorbing ceilings, wall panels and baffles for humid areas.

They stand up to regular cleaning using advanced methods such as steam or high/low pressure washing. Their surface is resistant to common detergents and disinfectants. The absorbers have low emission levels, thus ensuring high indoor air quality. They are resistant to mould and bacteria growth and withstand HPV cleaning.

Shared properties – Ecophon Hygiene Performance™



Accessibility

Minimum demounting depth according to installation diagrams

Demountable



Visual appearance



Surface: Akutex™ HS

White 500, nearest NCS colour sample S 0500-N,
Light reflectance: 84%


















Fire safety

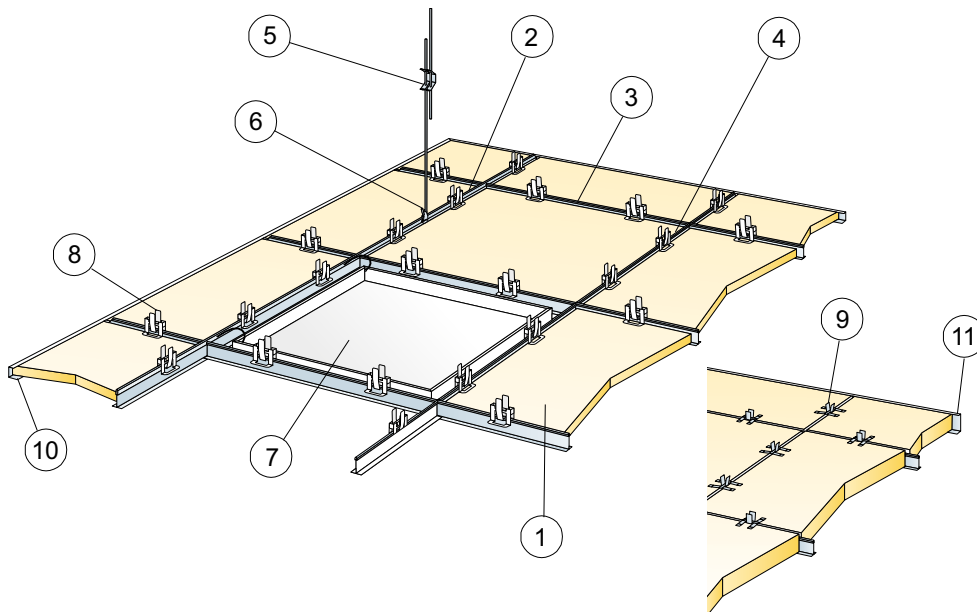
Classification (EN 13501-1)

Class: A2-s1,d0

Differentiating properties – Ecophon Hygiene Performance™

		A	Ds	Plus A	Baffle	Wall	Care Wall
Range	Installation methods						
	Size, thickness (mm)	600x600x20 1200x600x20 600x600x40 1200x600x40	600x600x20 1200x600x20	600x600x20 1200x600x20 600x600x40 1200x600x40	1200x600x50	1200x600x40	2700x1200x40
	Visual experience	Visual grid	Concealed grid	Visual grid	Semi concealed grid	Visual bracket	Visual frame
	Edge treatment	Primed	Painted	Painted	Painted	Painted	Primed
	Weight of system (approx.)	3-4 kg/m ² , 20 mm 5 kg/m ² , 40 mm	3-4 kg/m ²	3.5 kg/m ² , 20 mm 5 kg/m ² , 40 mm	5 kg/m ²	3 kg/pcs	5 kg/m ²
	Back treatment of the tile	Glass tissue	Glass tissue	Hygiene Surface	Akutex™ HS	Akutex™ HS	Glass Tissue
	 Acoustic	Sound absorption (α_w)	0.95, 20 mm 1.00, 40 mm	0.90	0.90, 20 mm 0.95, 40 mm	0.70, rows 0.75, rectangles	1.0
 Cleanability	Dusting & vacuum cleaning	Daily	Daily	Daily	Daily	Daily	Daily
	Wet wiping	Weekly	Weekly	Weekly	Weekly	Weekly	Weekly
 Advanced cleanability	Steam cleaning	4/year	4/year	4/year	4/year	4/year	4/year
	Wet cleaning	2/year	-	2/year	2/year	2/year	-
	High pressure washing	2/year	-	2/year	2/year	2/year	-
	Hydrogen peroxide vapour	●	●	●	●	●	●
 Surface endurance	Withstand 200 cycles (ISO 11998)	●	●	●	●	●	●
	Back of tile withstand 200 cycles (ISO 11998)	-	-	●	-	-	-
 Chemical resistance	Resistant to disinfection chemicals (ISO 11998)	2/year	2/year	2/year	2/year	2/year	2/year
 Environmental footprint	Kg CO ₂ equiv/m ² (ISO 14025, EN 15804)	2,29, 20 mm 3,51, 40 mm	-	3,21, 20 mm 4,98, 40 mm	6,73	6,76	-
 Humidity resistance	Dry area system, compatible with corrosion class C1 areas	●	●	●	●	●	●
	High humidity area system, compatible with corrosion class C3 areas	●	●	●	●	●	-
	Swimming pool area system, compatible with corrosion class C4 areas	●	●	-	●	-	-
 Clean room	Clean room classification ISO 4 (ISO 14644-1) and Zone 4 (NFS 90-351)						
	Bacteriological class M1 (NFS 90-351)						
	Kinetic class for particle elimination CP _[0.5] 5 (NFS 90-351)						
 Mould and bacteria resistance	Mould, Class 0, method A (ISO 846)						
	Bacteria, Class 0, method C (ISO 846)						





© Ecophon Group

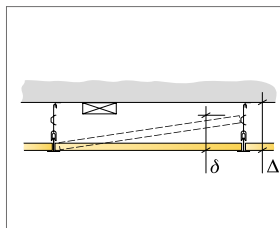
QUANTITY SPECIFICATION (EXCL. WASTAGE)

	Size, mm	
	600x600	1200x600
1 Hygiene Performance A	2,8/m ²	1,4/m ²
2 Connect T24 Main Runner C3, installed at 1200 mm centres	0,9m/m ²	0,9m/m ²
3 Connect T24 Cross Tee C3, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4 Connect T24 Cross Tee C3, L=600 mm	0,9m/m ²	-
5 Connect Adjustable Hanger C3, c1200 (max distance from wall 600 mm)	0,7/m ²	0,7/m ²
6 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7 Connect Inspection Hatch C3	as required	as required
8 Connect Hygiene Clip 20	11/m ²	7/m ²
9 Connect Hygiene Clip 40	11/m ²	7/m ²
10 Connect Channel Trim C3, fixed c300 (for 20 mm thickness)	as required	as required
11 Connect Channel Trim C3, fixed c300 (for 40 mm thickness)	as required	as required

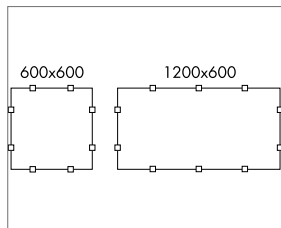
Δ Min. overall depth of system: 150 mm

δ Min. demounting depth 20 mm: 150 mm

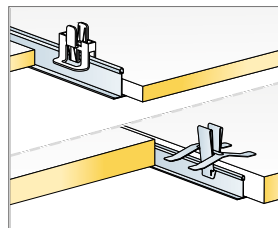
δ Min. demounting depth 40 mm: 170 mm



See Quantity Specification



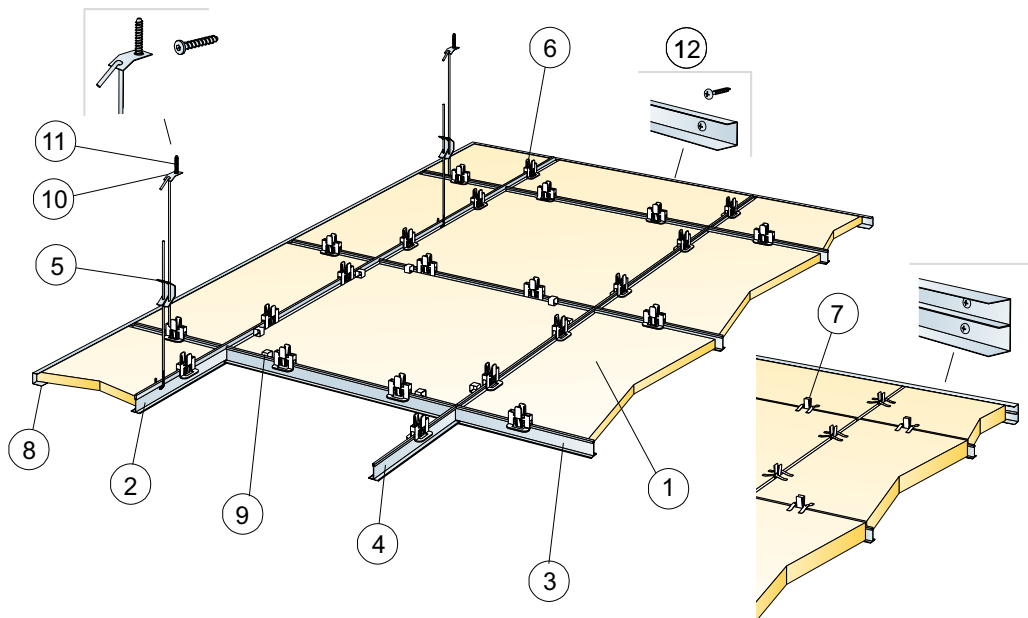
Arrangement of clips



Clips for keeping tiles in position

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

Live load/load bearing capacity



© Ecophon Group

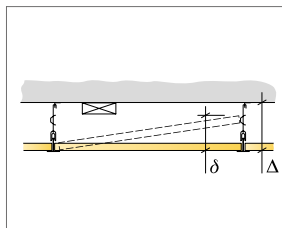
QUANTITY SPECIFICATION (EXCL. WASTAGE)

	Size, mm	
	600x600	1200x600
1 Hygiene Performance A	2,8/m ²	1,4/m ²
2 Connect T24 Main Runner C4, c1200	0,9m/m ²	0,9m/m ²
3 Connect T24 Cross Tee C4, L=1200, c600	1,7m/m ²	1,7m/m ²
4 Connect T24 Cross Tee C4, L=600	0,9m/m ²	-
5 Connect Adjustable Hanger C4, c1200, (max 600 mm distance from wall)	0,7/m ²	0,7/m ²
6 Connect Hygiene Clip 20	11/m ²	7/m ²
7 Connect Hygiene Clip 40 C4	11/m ²	7/m ²
8 Connect Channel Trim C4, fixed at c300 mm	as required	as required
9 Connect Demo Clip 20 C4, (where access is needed)	as required	as required
10 Connect Fixing Plate C4	0,7/m ²	0,7/m ²
11 Connect Anchor Screw C4	0,7/m ²	0,7/m ²
12 Connect Installation Screw C4	3,4/m Channel trim C4	

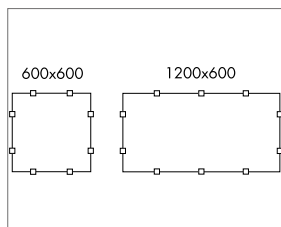
Δ Min. overall depth of system: 150 mm

δ Min. demounting depth: 150 mm

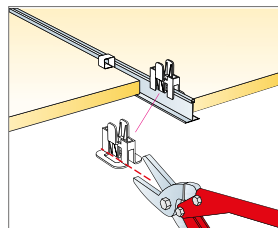
δ Min. demounting depth 40 mm: 170 mm



See Quantity Specification



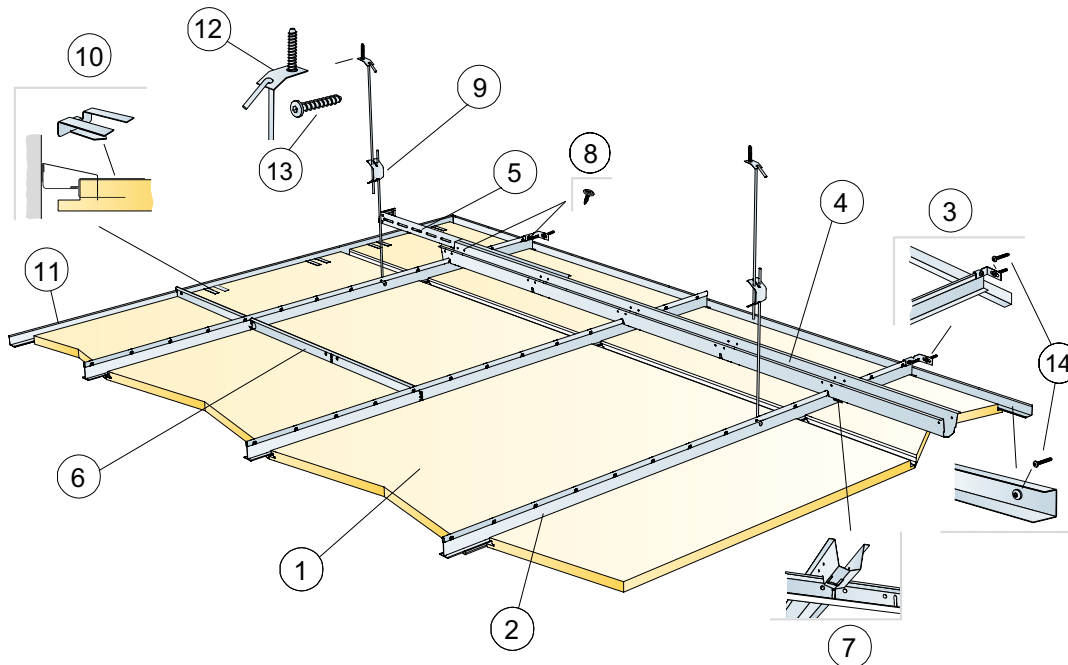
Arrangement of clips



Cutting of Connect Hygiene Clip 20 at the inspection tile

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

Live load/load bearing capacity

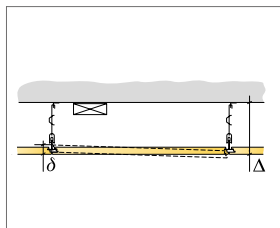


QUANTITY SPECIFICATION (EXCL. WASTAGE)

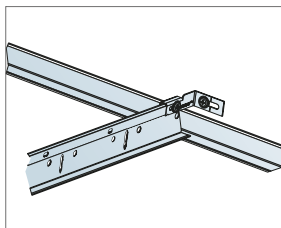
		Size, mm	
		600x600	1200x600
1	Hygiene Performance Ds	2,8/m ²	1,4/m ²
2	Connect T24 Main Runner C4, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
3	Connect Wall Bracket C4 for T-profiles C4	1/suspended row of Main runner	
4	Connect Space Bar C4, installed at 1500 mm centres (max. distance from wall 300 mm) for winch	0,7m/m ²	0,7m/m ²
5	Connect Wall Bracket C4, L=700 mm, for Connect Space Bar	1/row of Space bar	
6	Connect T24 Cross Tee C4, L=600 mm	2/row of Main runner	
7	Connect Space Bar Winch C4, installed one per joint Connect Main Runner/Connect Space Bar	1,4/m ²	1,4/m ²
8	C4 screw for wall brackets(included in products)		
9	Connect Adjustable Hanger C4, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m ²	0,7/m ²
10	Connect Support Clip Dg20 C4	1pc/300-400 mm on every cut perimeter tile with only 1 supporting edge	
11	Connect Angle Trim 15/22 C4, fixed at 300 mm centres	as required	as required
12	Connect Fixing Plate C4	0,7/m ²	0,7/m ²
13	Connect Anchor Screw C4	0,7/m ²	0,7/m ²
14	Connect Installation Screw C4	3,4/m Channel trim C4	

Δ Min. overall depth of system: 385 mm

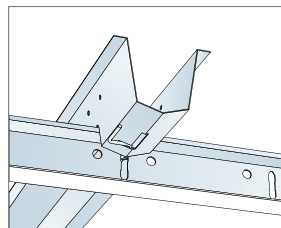
δ Min. demounting depth: 30 mm



See Quantity Specification



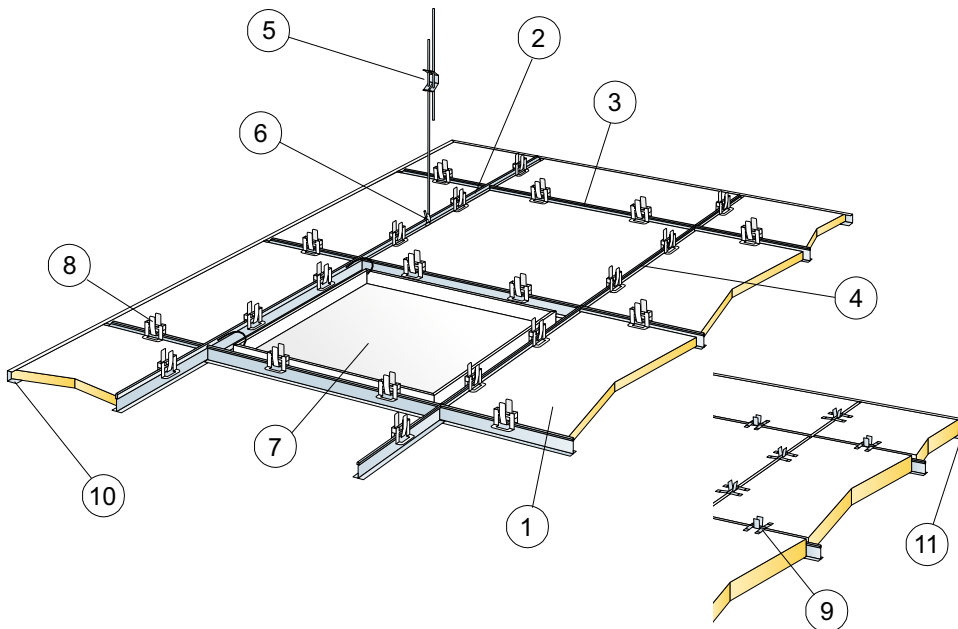
Secured Connect Main Runner C4 at wall with Connect Wall Bracket C4



Connection between profiles and Connect Space Bar Winch C4

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

Live load/load bearing capacity



© Ecophon Group

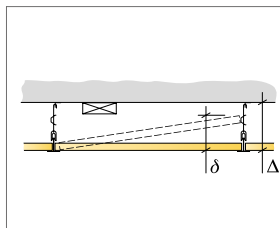
QUANTITY SPECIFICATION (EXCL. WASTAGE)

		Size, mm	
		600x600	1200x600
1	Hygiene Performance Plus A	2,8/m ²	1,4/m ²
2	Connect T24 Main Runner C3, installed at 1200 mm centres	0,9m/m ²	0,9m/m ²
3	Connect T24 Cross Tee C3, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4	Connect T24 Cross Tee C3, L=600 mm	0,9m/m ²	-
5	Connect Adjustable Hanger C3, c1200 (max distance from wall 600 mm)	0,7/m ²	0,7/m ²
6	Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7	Connect Inspection Hatch C3	as required	as required
8	Connect Hygiene Clip 20	11/m ²	7/m ²
9	Connect Hygiene Clip 40	11/m ²	7/m ²
10	Connect Channel Trim C3, fixed c300 (for 20 mm thickness)	as required	as required
11	Connect Channel Trim C3, fixed c300 (for 40 mm thickness)	as required	as required

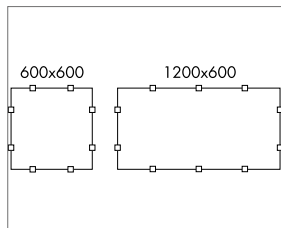
Δ Min. overall depth of system: 150 mm

δ Min. demounting depth 20 mm: 150 mm

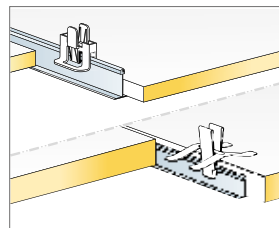
δ Min. demounting depth 40 mm: 170 mm



See Quantity Specification



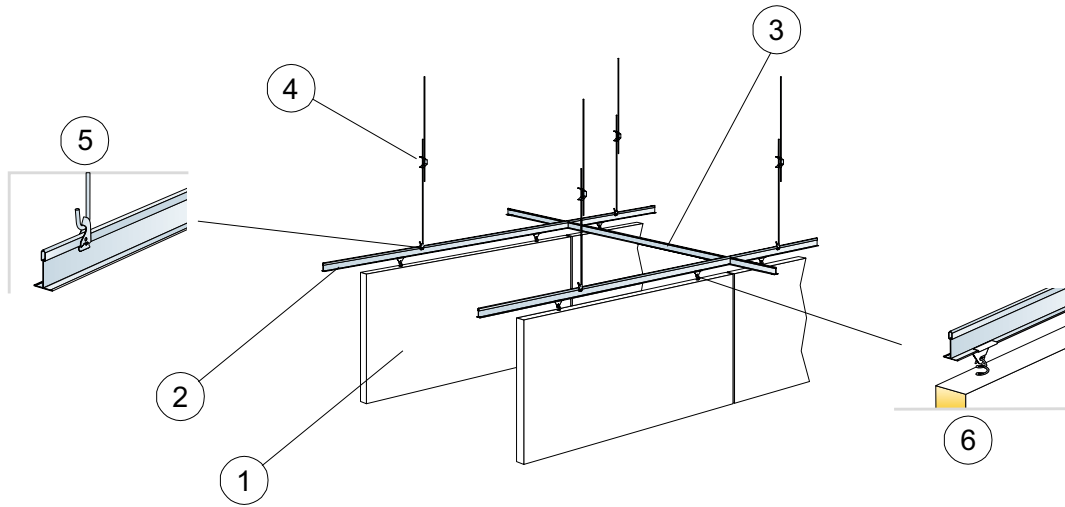
Arrangement of clips



Clips for keeping tiles in position

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	50	160
1200x600	50	160

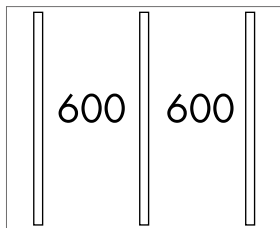
Live load/load bearing capacity



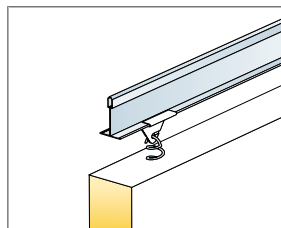
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

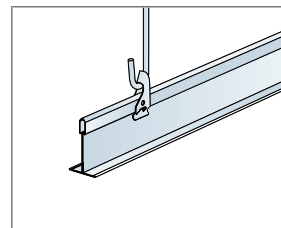
		Size, mm
		1200x600
1	Hygiene Performance Baffle	1,4/m ²
2	Connect T24 Main Runner C3, installed at 600 mm centres	1,7m/m ²
3	Connect T24 Cross Tee C3, L=600 mm, installed at 1800 mm centres	0,6m/m ²
4	Connect Adjustable Hanger C3 c1200	1,4/m ²
5	Connect Hanger Clip	1,4/m ²
6	Connect Baffle Clip C3	2,8/m ²



Installation in rows



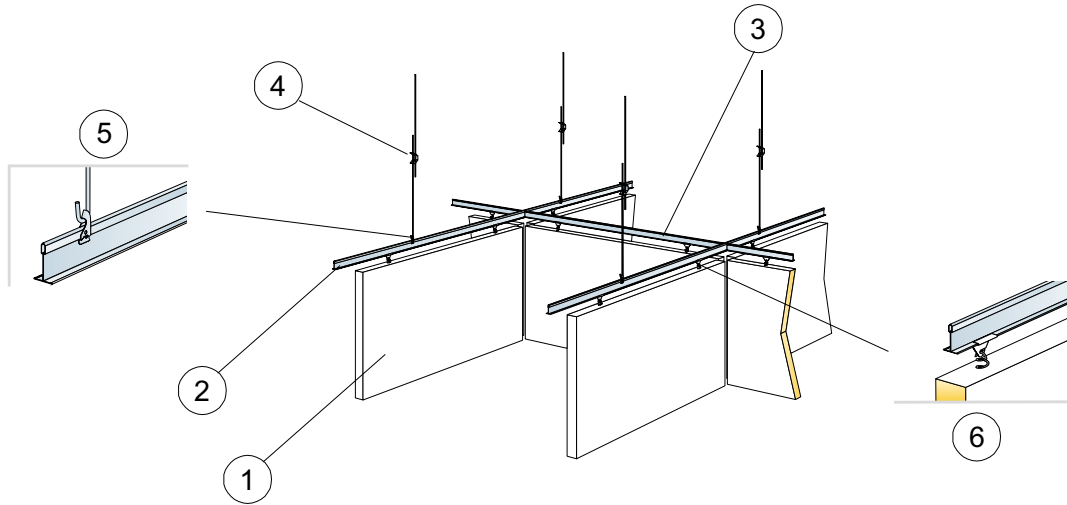
Detail of suspension



Suspension with Connect Adjustable Hanger and Connect Hanger Clip

Size, mm	Max live load [N]	Min load bearing capacity [N]
1200x600	0	160

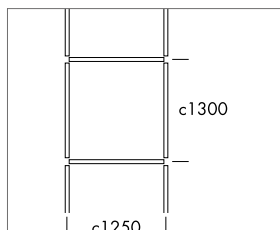
Live load/load bearing capacity



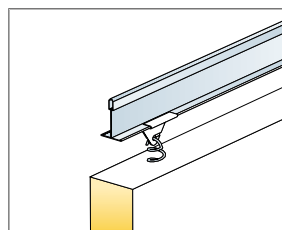
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

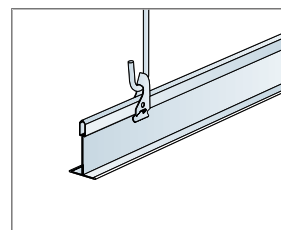
		Size, mm
		1200x600
1	Hygiene Performance Baffle	1,3/m ²
2	Connect T24 Main Runner C3, installed at 1250 mm centres	0,8m/m ²
3	Connect T24 Cross Tee C3, L=1250 mm, installed at 1300 mm centres	0,8m/m ²
4	Connect Adjustable Hanger C3	0,7/m ²
5	Connect Hanger Clip	0,7/m ²
6	Connect Baffle Clip C3	2,5/m ²



Installation in rectangles



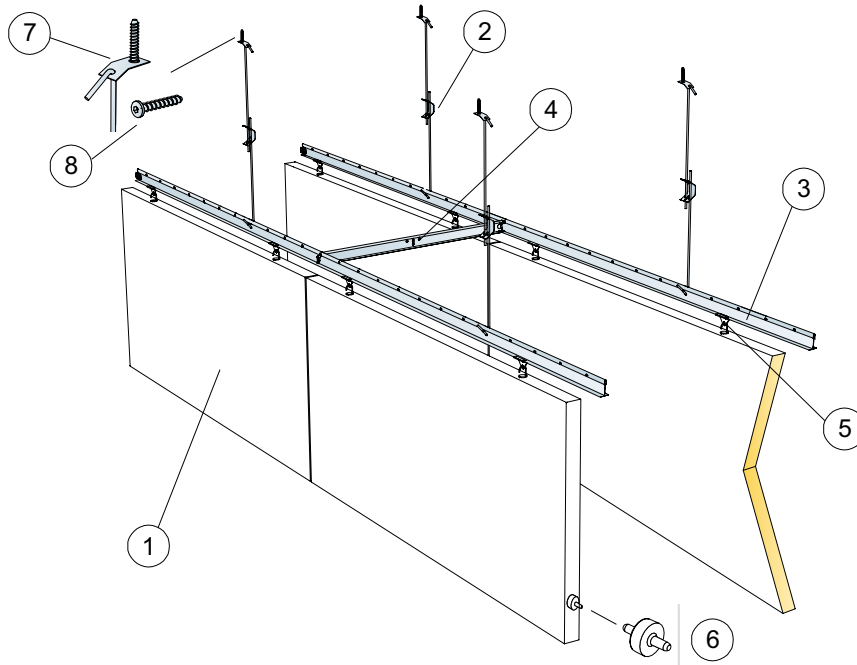
Detail of suspension



Suspension with Connect Adjustable Hanger and Connect Hanger Clip

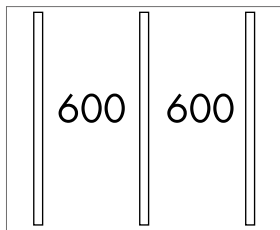
Size, mm	Max live load [N]	Min load bearing capacity [N]
1200x600	0	160

Live load/load bearing capacity

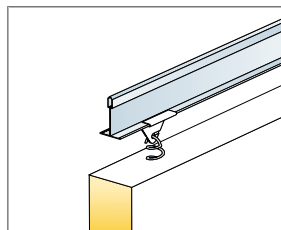


QUANTITY SPECIFICATION (EXCL. WASTAGE)

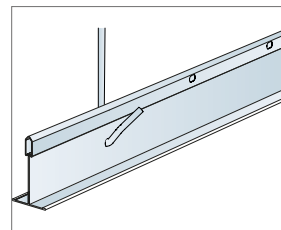
		Size, mm
		1200x600
1	Hygiene Performance Baffle	1,4/m ²
2	Connect Adjustable Hanger C4 c1200	1,4/m ²
3	Connect T24 Main Runner C4, installed at 600 mm centres	1,7m/m ²
4	Connect T24 Cross Tee C4, L=600 mm, installed at 1800 mm centres	0,6m/m ²
5	Connect Baffle Clip C4	2,8/m ²
6	Connect Guiding Pin, installed at 1200/1800 mm centres	2,8/m ²
7	Connect Fixing Plate C4	1,4/m ²
8	Connect Anchor Screw C4	1,4/m ²



Installation in rows



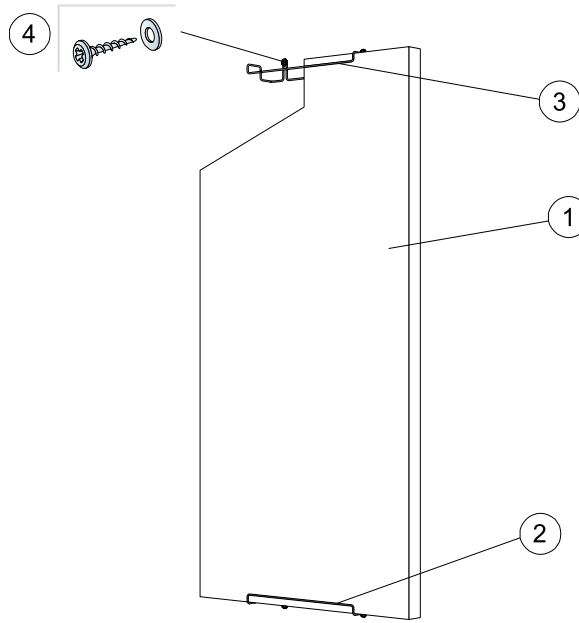
Detail of suspension



Suspension with Connect Adjustable Hanger C4

Size, mm	Max live load [N]	Min load bearing capacity [N]
1200x600	0	160

Live load/load bearing capacity

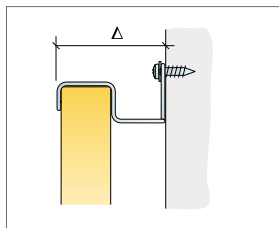


© Ecophon Group

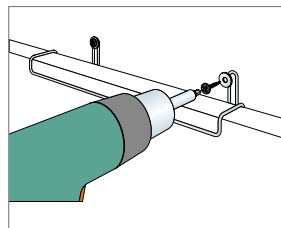
QUANTITY SPECIFICATION (EXCL. WASTAGE)

		Size, mm
		1200x600
1	Hygiene Performance Wall	1,4/m ²
2	Connect Wall Fixing C3, vertical installation	2/panel
3	Connect Wall Fixing C3, horizontal installation	4/panel
4	Wall screw, A2 material (not supplied by Ecophon)	2/wall fixing

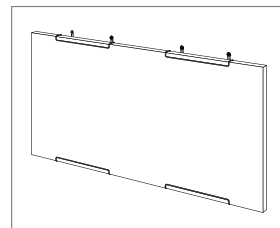
Δ Min. overall depth of system: 90 mm



See Quantity Specification



Installation with wall screw in stainless steel (A2) material



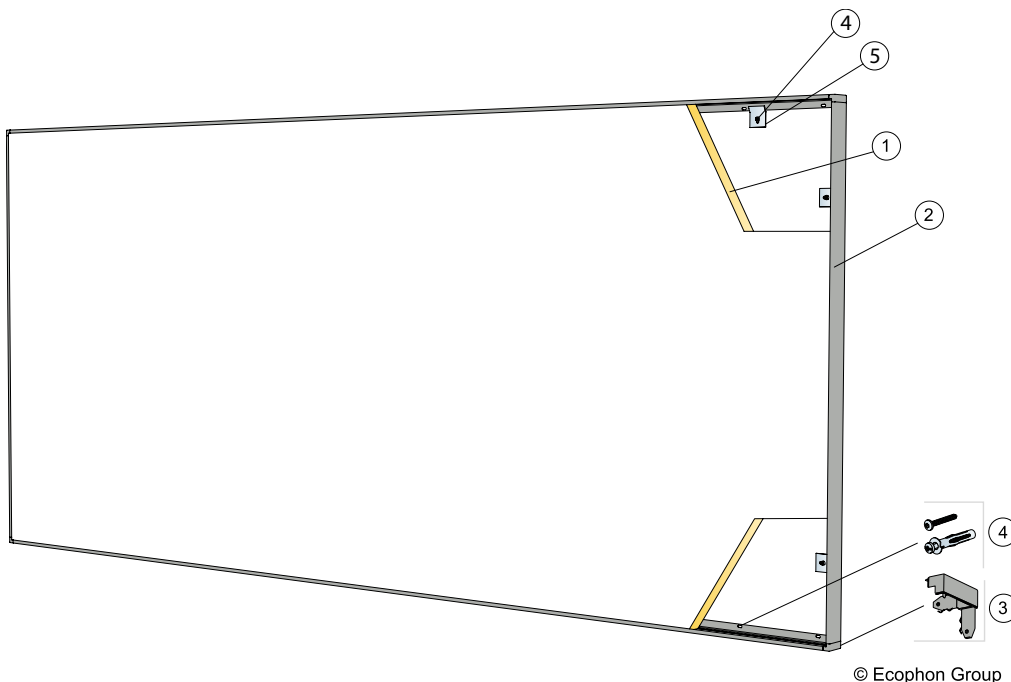
Horizontal installation of Performance Wall C3

Size, mm	Max live load [N]	Min load bearing capacity [N]
1200x600	0	-

Live load/load bearing capacity



INSTALLATION DIAGRAM (M461) FOR HYGIENE PERFORMANCE™ CARE WALL VERTICAL INSTALLATION WITH CONNECT THINLINE PROFILE

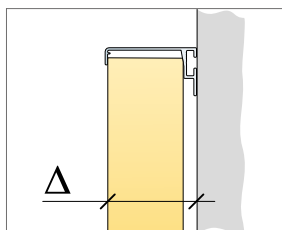


© Ecophon Group

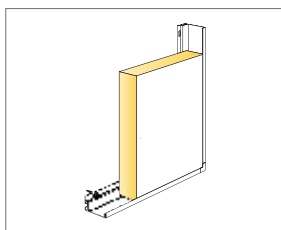
QUANTITY SPECIFICATION (EXCL. WASTAGE)

	Size, mm
	2700x1200
1 Hygiene Performance Care Wall	0,31/m ²
2 Connect Thinline Profile, L=2678 mm	as required
3 Connect Thinline Corner	as required
4 Installation screw, installed at 200 mm centres [select fastener according to wall material]	as required
5 Alt. use Connect Fixing Bracket on one vertical and top profile	as required

Δ Min. overall depth of system: 49 mm



See Quantity Specification



Detail of panel with Thinline frame



Photographer: Faraday Photographic Ltd



Photographer: Teddy Stroganoff / The Image



Photographer: 123rf/Elnur / iStock / iStock






Ecophon Hygiene Advance™

Wet areas – daily cleaning with strong chemicals

Ecophon Hygiene Advance™ are sound-absorbing ceilings, wall panels and baffles for the most demanding conditions, including airborne grease and dirt particles.

They stand up to daily advanced cleaning and disinfection with strong chemicals. The absorbers have low emission levels, thus ensuring high indoor air quality, and they withstand HPV cleaning. For areas where air pressure control is required, Ecophon Hygiene Advance™ A is available.

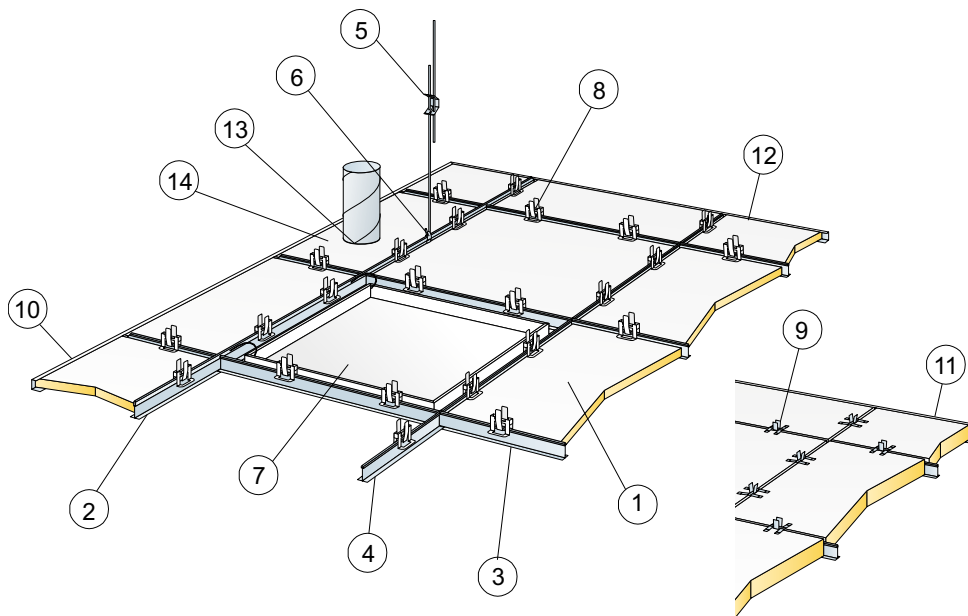
Shared properties – Ecophon Hygiene Advance™

 Accessibility	Minimum demounting depth according to installation diagrams	Demountable
 Visual appearance	Surface: Advance	White 141, Nearest NCS colour sample: NCS S 1000-N. Light reflectance: 73%
 Fire safety	Classification (EN 13501-1)	Class: A2-s1,d0

Differentiating properties – Ecophon Hygiene Advance™

		A	Baffle	Wall
Range	Installation methods			
	Size, thickness (mm)	600x600x20 1200x600x20 600x600x40 1200x600x40	1200x600x40	1200x600x40
	Visual experience	Visual grid	Semi concealed grid	Visual bracket
	Edge treatment	Advance	Advance	Advance
	Weight of system (approx.)	3 kg/m ² , 20 mm 4.5 kg/m ² , 40 mm	4 kg/m ²	3 kg/pcs
	Back treatment of the tile	Advance	Advance	Advance
	Acoustic	Sound absorption (α_w)	0.85, 20 mm 0.90, 40 mm	0.60
Cleanability	Dusting & vacuum cleaning	Daily	Daily	Daily
	Wet wiping	Daily	Daily	Daily
Advanced cleanability	Steam cleaning	Daily	Daily	Daily
	Wet cleaning	Daily	Daily	Daily
	High pressure washing	Daily	Daily	Daily
	Hydrogen peroxide vapour	●	●	●
Surface endurance	Withstand 200 cycles (ISO 11998)	●	●	●
	Withstand cycles beyond ISO 11998	●	●	●
Chemical resistance	Resistant to strong chemicals (ISO 2812-1)	Daily	Daily	Daily
Air permeability	Air leakage rate m ³ /(h x m ² x Pa). Valid for pressure differentials up to 50 Pa	1.1, 20 mm 0.3, 40 mm	-	-
Humidity resistance	High humidity area system, compatible with corrosion class C3 areas	●	●	●
	Swimming pool area system, compatible with corrosion class C4 areas	●	-	-
	Constant wet area system, compatible with corrosion class C4 areas	●	-	-
Clean room (Advanced)	Clean room classification ISO 3 (ISO 14644-1) and Zone 4 (NFS 90-351)			
	Bacteriological class M1 (NFS 90-351)			
	Kinetic particle elimination, CP _(0.5) 1 (NFS 90-351)			
Mould and bacteria resistance	Mould, Class 1, method A (ISO 846)			
	Bacteria, Class 0, method C (ISO 846)			

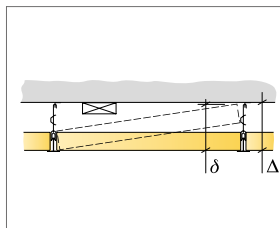




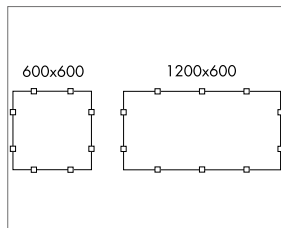
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

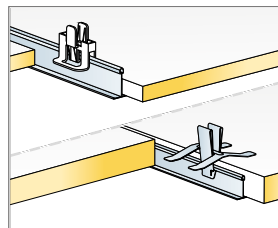
	Size, mm	
	600x600	1200x600
1 Hygiene Advance A	2,8/m ²	1,4/m ²
2 Connect T24 Main Runner C3, installed at 1200 mm centres	0,9m/m ²	0,9m/m ²
3 Connect T24 Cross Tee C3, L=1200 mm, installed at 600 mm centres	1,7m/m ²	1,7m/m ²
4 Connect T24 Cross Tee C3, L=600 mm	0,9m/m ²	-
5 Connect Adjustable Hanger C3, c1200 (max distance from wall 600 mm)	0,7/m ²	0,7/m ²
6 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m ²	0,7/m ²
7 Connect Inspection Hatch C3	as required	as required
8 Connect Hygiene Clip 20	11/m ²	7/m ²
9 Connect Hygiene Clip 40	11/m ²	7/m ²
10 Connect Channel Trim C3, fixed c300 (for 20 mm thickness)	as required	as required
11 Connect Channel Trim C3, fixed c300 (for 40 mm thickness)	as required	as required
12 Connect Hygiene Advance Tape	as required	as required
13 Joint sealant (not supplied by Ecophon)	as required	as required
14 Hygiene Advance Technical Tile (thickness 20 mm)	as required	as required
Δ Min. overall depth of system: 150 mm		
δ Min. demounting depth 20 mm: 150 mm		
δ Min. demounting depth 40 mm: 170 mm		



See Quantity Specification



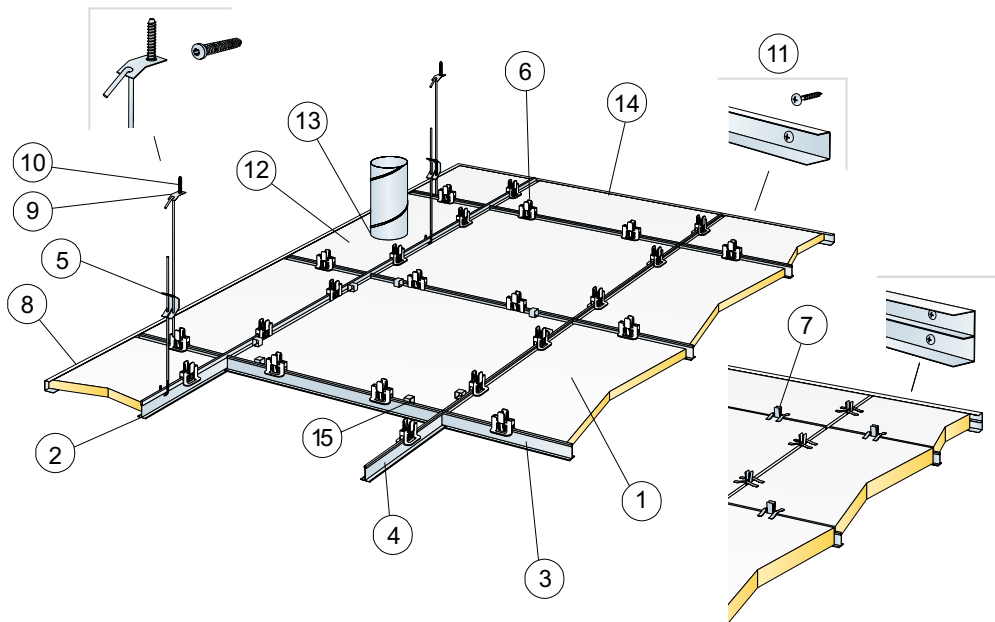
Arrangement of clips



Clips for keeping tiles in place

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	40	160
1200x600	40	160

Live load/load bearing capacity



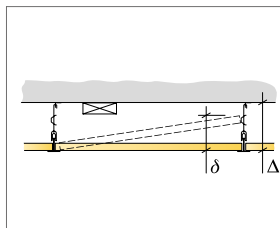
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

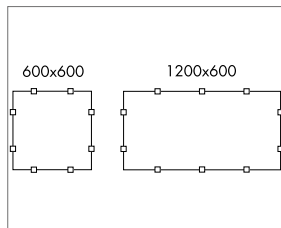
	Size, mm	
	600x600	1200x600
1 Hygiene Advance A	2,8/m ²	1,4/m ²
2 Connect T24 Main Runner C4, c1200	0,9m/m ²	0,9m/m ²
3 Connect T24 Cross Tee C4, L=1200, c600	1,7m/m ²	1,7m/m ²
4 Connect T24 Cross Tee C4, L=600	0,9m/m ²	-
5 Connect Adjustable Hanger C4, c1200, (max 600 mm distance from wall)	0,7/m ²	0,7/m ²
6 Connect Hygiene Clip 20	11/m ²	7/m ²
7 Connect Hygiene Clip 40 C4	11/m ²	7/m ²
8 Connect Channel Trim C4, fixed at c300 mm	as required	as required
9 Connect Fixing Plate C4	0,7/m ²	0,7/m ²
10 Connect Anchor Screw C4	0,7/m ²	0,7/m ²
11 Connect Installation Screw C4	3,4/lm Channel trim C4	
12 Hygiene Advance Technical Tile (thickness 20 mm)	as required	as required
13 Joint sealant (not supplied by Ecophon)	as required	as required
14 Connect Hygiene Advance Tape	as required	as required
15 Connect Demo Clip 20 C4, (where access is needed)	as required	as required

Δ Min. overall depth of system: 150 mm

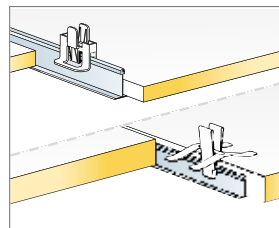
δ Min. demounting depth: 150 mm



See Quantity Specification



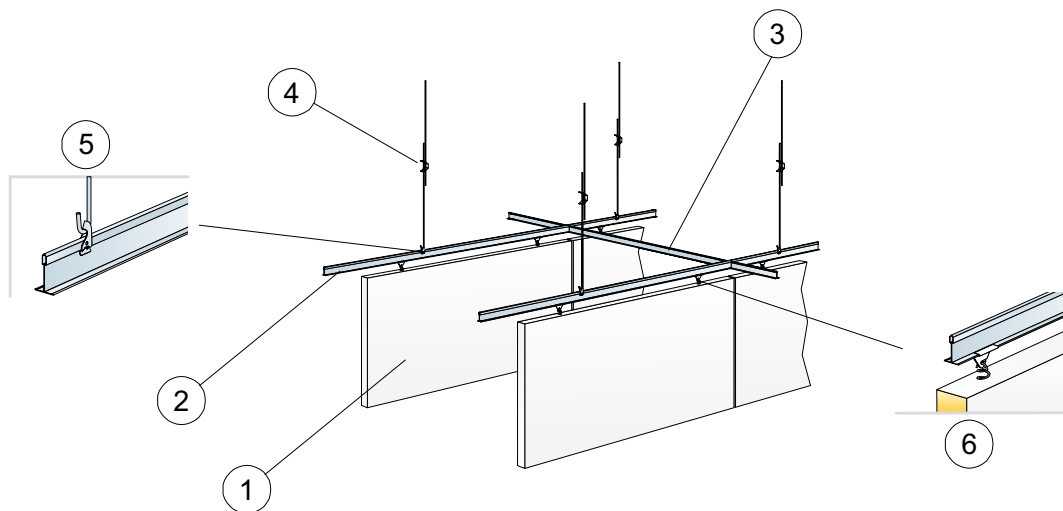
Arrangement of clips



Clips for keeping tiles in place

Size, mm	Max live load [N]	Min load bearing capacity [N]
600x600	40	160
1200x600	40	160

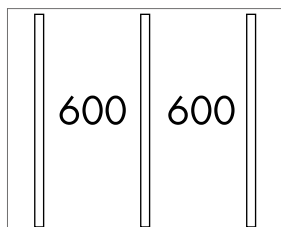
Live load/load bearing capacity



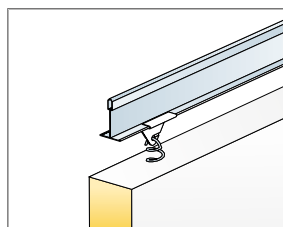
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

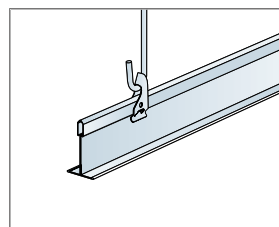
		Size, mm
		1200x600
1	Hygiene Advance Baffle	1,4/m ²
2	Connect T24 Main Runner C3, installed at 600 mm centres	1,7m/m ²
3	Connect T24 Cross Tee C3, L=600 mm, installed at 1800 mm centres	0,6m/m ²
4	Connect Adjustable Hanger C3 c1200	1,4/m ²
5	Connect Hanger Clip	1,4/m ²
6	Connect Baffle Clip C3	2,8/m ²



Installation in rows



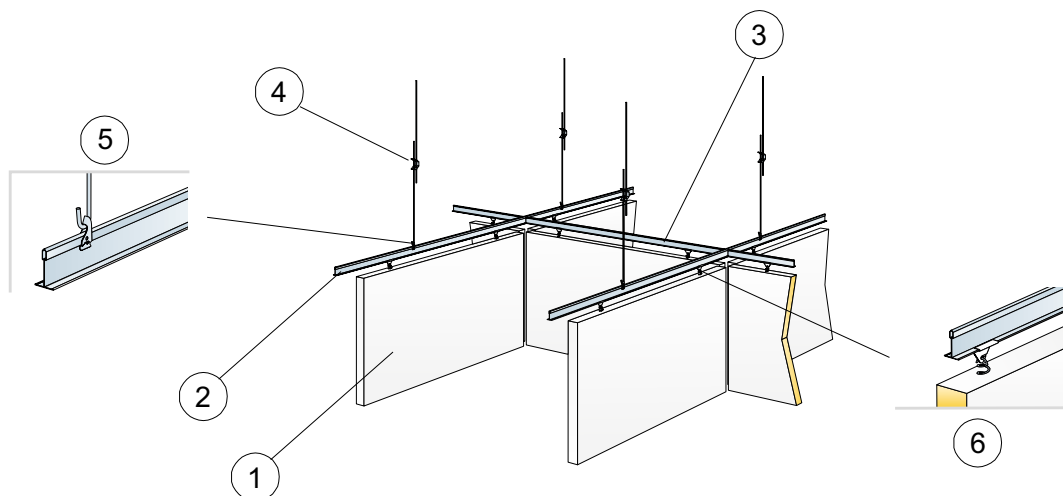
Detail of suspension



Suspension with Connect Adjustable Hanger and Connect Hanger Clip

Size, mm	Max live load [N]	Min load bearing capacity [N]
1200x600	0	160

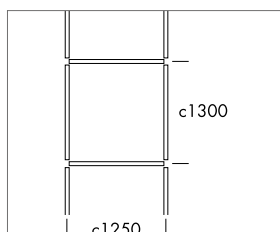
Live load/load bearing capacity



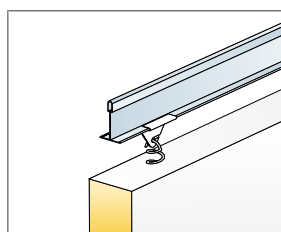
© Ecophon Group

QUANTITY SPECIFICATION (EXCL. WASTAGE)

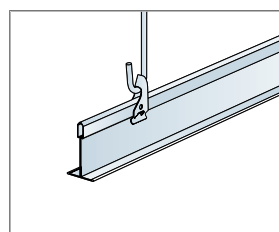
		Size, mm
		1200x600
1	Hygiene Advance Baffle	1,3/m ²
2	Connect T24 Main Runner C3, installed at 1250 mm centres	0,8m/m ²
3	Connect T24 Cross Tee C3, L=1250 mm, installed at 1300 mm centres	0,8m/m ²
4	Connect Adjustable Hanger C3	0,7/m ²
5	Connect Hanger Clip	0,7/m ²
6	Connect Baffle Clip C3	2,5/m ²



Installation in rectangles



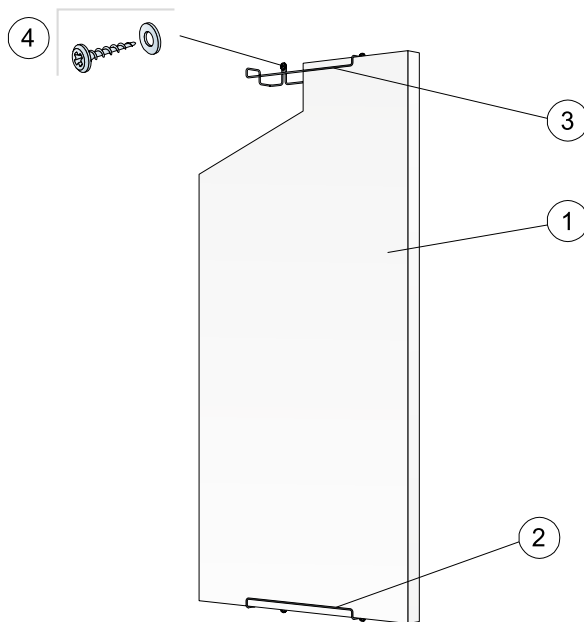
Detail of suspension



Suspension with Connect Adjustable Hanger and Connect Hanger Clip

Size, mm	Max live load [N]	Min load bearing capacity [N]
1200x600	0	160

Live load/load bearing capacity

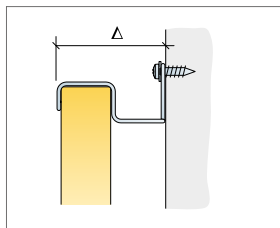


© Ecophon Group

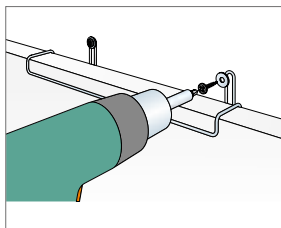
QUANTITY SPECIFICATION (EXCL. WASTAGE)

	Size, mm
	1200x600
1 Hygiene Advance Wall	1,4/m ²
2 Connect Wall Fixing C3, vertical installation	2/panel
3 Connect Wall Fixing C3, horizontal installation	4/panel
4 Wall screw, A2 material (not supplied by Ecophon)	2/wall fixing

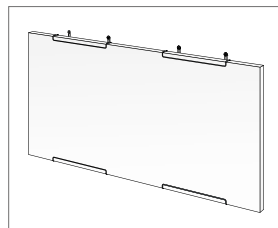
Δ Min. overall depth of system: 90 mm



See Quantity Specification



Installation with wall screw in stainless steel (A2) material



Horizontal installation of Advance Wall C3

Size, mm	Max live load [N]	Min load bearing capacity [N]
1200x600	0	-

Live load/load bearing capacity



Photographer: Teddy Stancqvist / Studbo.se



Photographer: Szymon Polanski



Photographer: Szymon Polanski



Photographer: Szymon Polanski



Ecophon Hygiene Lavanda™ LED

Withstands frequent high pressure hosing

A recessed modular luminaire for use in Ecophon Hygiene edge A ceilings.

Hygiene Lavanda LED is equipped with a high frequency ballast, and is flush mounted to the ceiling to avoid pockets that could accumulate dirt and dust. The housing is made of 1.0 mm thick corrosion protected steel sheet in white. The frame is made of anodised extruded aluminium, and is secured to the housing by means of clips. The frame supports a 3 mm thick clear plastic acrylic cover, and is sealed to the grid using a rubber gasket.



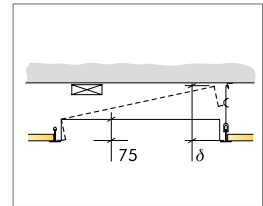
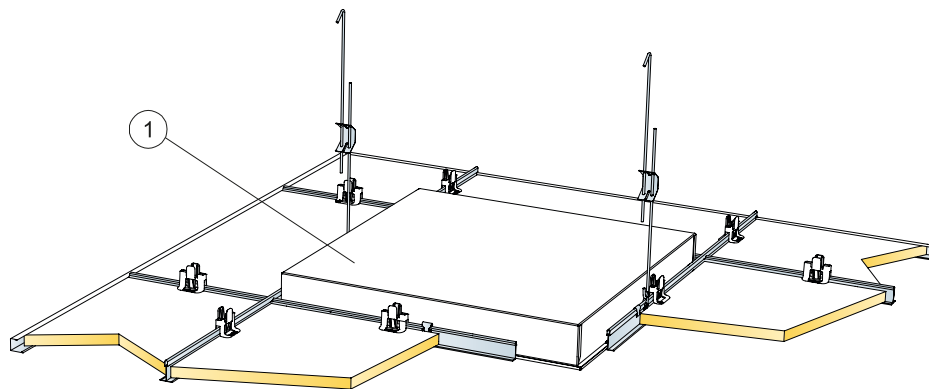
Properties – Ecophon Hygiene Lavanda™ Led

		A
Range	Installation methods	
	Size (mm)	600x600
	Weight	6.5 kg
Cleanability	Dusting & vacuum cleaning	Daily
	Wet wiping	Daily
Advanced cleanability	Wet cleaning	Daily ¹
Chemical resistance	Resistant to disinfection chemicals	Withstand the use of common disinfecting chemicals.
Humidity resistance	Dry area system, compatible with corrosion class C1 areas	●
	High humidity area system, compatible with corrosion class C3 areas	●
Electrical data	230-240V, 50 Hz, power factor cos φ>0,95. Electronic HF ballast.	
Connection	Delivered without any cables. Can be installed for on/off, SwitchDIM or DALI.	
Electrical approvals	IP65, Class 1. CE	
Lighting performance		System effect: 49,8 W Light source: LED Luminous flux: 4189 lm Light efficiency: 84 lm/W Colour temperature: 4000K Color rendering index: Ra >80 Colour tolerance: MacAdam 3 SDCM Light output ratio (LOR): 100% Light distribution up/down: 0/100 Expected lifespan: L80 >60000 h

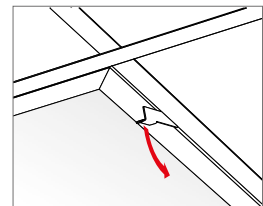
1. Water temperature max. 70 °C

M429

INSTALLATION DIAGRAM (M429) FOR ECOPHON HYGIENE LAVANDA™ LED



See Quantity Specification



Opening of the frame, which is secured with a snap-lock device

QUANTITY SPECIFICATION (EXCL. WASTAGE)

		Size, mm
1	Hygiene Lavanda LED	600x600
	δ Min. demounting depth: 300 mm	as required

For the latest information go to www.ecophon.com or contact your nearest Ecophon representative.

Ecophon assistance towards a healthy indoor environment

If you want to know more about indoor acoustics, Ecophon sound-absorbing ceilings and wall absorbers, or find the most suitable solution for a specific room, please contact us or use our digital tools.

Learn more and meet the experts

Ecophon has been involved in international studies and gathering acoustic knowledge for more than 50 years. The most important information has a dedicated place on our website and is freely accessible to everybody. Here you can also meet our acoustic experts. There are currently 21 of them, all over the world. Their objective – to spread knowledge and help anyone who requests assistance.

ecophon.com/knowledge

Ecophon Acoustic Calculator

Ecophon has developed a free calculator that you can use to get accurate acoustic values for rooms that have not been built yet. It is also easy to use when planning refurbishments. Simply fill in the specifications of the room and the calculator will tell you what the sound environment will be like.

ecophon.com/e-tools

Product guide

In the product guide you can learn the acoustic considerations of all the common spaces in different facilities, such as healthcare, offices, education, industry, cinemas, kitchens and swimming pools. It also offers product recommendations for each environment.

ecophon.com/productguide

Installation films

The collection of installation and accessibility films are live action films where you follow an installer who takes you through the process step by step. The films are available on the product pages on our website and on the Ecophon YouTube channel.

ecophon.com

youtube.com/ecophonTV

Cleaning and maintenance films

Want to see how to clean our different surfaces and what they withstand? Our cleaning and maintenance films tell you everything you need to know. They are available on the product pages on our website and on the Ecophon YouTube channel.

ecophon.com

youtube.com/ecophonTV

More e-tools

When you have chosen your solution, the Ecophon Quantification Tool will help you make an estimation of all the components you need to build an Ecophon acoustic system.

The Ecophon Maintenance guide is a web-based tool for generating maintenance instructions for Ecophon ceiling and wall systems, tailored for your specific project.

BIM objects are widely used in construction projects today. By downloading Ecophon BIM objects, you automatically have free access to a wide range of up-to-date, technically relevant data. The files are compatible with both ArchiCAD and Revit.

ecophon.com/e-tools

Social media

We are on LinkedIn, Facebook, YouTube and Twitter. Following us means you stay abreast with all the latest acoustic findings, acoustic research and product development, and can also see inspirational new reference cases.





ECOPHON

A PART OF SAINT-GOBAIN GROUP

world leader in sustainable habitat solutions

This is Saint-Gobain

Saint-Gobain is constantly innovating to make living spaces more comfortable, cost-efficient and sustainable worldwide. Saint-Gobain solutions span from self-cleaning windows and photovoltaic glass to smart insulation systems, water supply systems and building materials distribution.

For over 350 years, Saint-Gobain has consistently demonstrated its ability to invent products that improve comfort and quality of life. Today's Saint-Gobain is one of the top 100 industrial groups in the world and one of the 100 most innovative companies, and continues to deploy its technological know-how, often in partnership with the most prestigious universities and laboratories.

Saint-Gobain offers solutions to the major challenges of energy efficiency and environmental protection. No matter what new needs emerge in the habitat and construction markets, the future is made of Saint-Gobain.

To find out more visit www.saint-gobain.com



Ecophon®

SAINT-GOBAIN

A SOUND EFFECT ON PEOPLE

Ecophon is the leading supplier of acoustic solutions. We contribute to healthier indoor environments, improving quality of life, wellbeing and working performance. As evolution has adapted the human senses to a life outdoors, our focus is to bring the ideal acoustic environments of nature into our modern indoor spaces. We know they will have a sound effect on people.



The principles guiding our work are grounded in our Swedish heritage, where a human approach and a common responsibility for people's lives and future challenges come naturally.

Ecophon is part of the Saint-Gobain Group, a world leader in sustainable habitat solutions. This is also one of the top 100 industrial groups in the world, constantly innovating to make living spaces more comfortable and cost-efficient. Saint-Gobain offer solutions to the major challenges of energy efficiency and environmental protection. No matter what new needs emerge in the habitat and construction markets, the future is made of Saint-Gobain.



www.ecophon.com