

# MAINTENANCE GUIDE

FOR ACOUSTIC CEILINGS, BAFFLES AND WALL ABSORBERS



# PROJECT INFORMATION

**Company**

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**Address**

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**Postal code**

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**City**

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**Homepage/url**

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**E-mail**

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**Contact person**

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**Phone**

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**Project name**

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**Description**

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**Remark**

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This publication shows products from Ecophon's product range and those of other suppliers. The specifications are intended to provide a general guide as to which product will be most suitable for the preferences indicated. Technical data is based on results obtained under typical testing conditions or from 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](http://www.ecophon.com) or contact your nearest Ecophon representative.

# ECOPHON ACOUSTIC CEILINGS AND WALL ABSORBERS

## DEMOUNTING AND INSTALLATION

Clean cotton gloves must always be used when handling ceiling panels and wall absorbers. This applies to handling panels both during installation and maintenance, e.g. installation of light fittings and servicing of ventilation systems.

When demounting, the panels should be completely removed from the grid and stored on a level surface, laid face to face. This prevents soiling and damage to the panels during the work.

## CLEANING

Prevention of soiling and regular cleaning is the basis for a long life, while retaining the appearance and properties of the ceiling.

## PREVENTION OF SOILING

A great deal of soiling in the ceiling takes place through the ventilation system, and deposits of dirt commonly occur round air supply vents. Regular maintenance of the ventilation system is therefore an important consideration in minimising soiling.

Pressure differences between the room and the ceiling void should be avoided to ensure that the suspended ceiling does not act as a filter on which particles of dirt and dust can be deposited. The ventilation system should be regulated so that the ceiling void is not under negative pressure relative to the room, so creating an equilibrium. An alternative way of avoiding pressure differences is to fit open grilles, perforated shadow-line trims and open light fittings.

## **CLEANING METHODS AND INSTRUCTIONS**

When wet cleaning, it is important to know if the system is suitable. If there is any doubt, please contact Ecophon. Alternatively, a test can be carried out on an individual panel or test piece.

Note that after washing, the surface may seem rather darker until it has dried out.

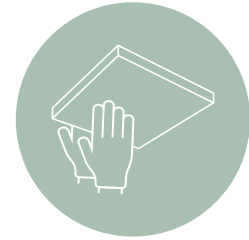
# GENERAL RECOMMENDATIONS

## REQUIREMENTS

To ensure the durability of Ecophon ceiling tiles, a couple of general recommendations 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 tiles

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



## DRY CLEANING

Wipe directly with the soft microfibre cloth in gentle, circular movements or with vacuum cleaner set at reduced suction with a soft brush or alternatively with the soft microfibre cloth wrapped around the standard head. Gently vacuum the surface, with very soft contact between the cleaner head and the panels in linear movements.



## WET WIPING

Saturate the microfibre cloth with water or with a mild detergent solution adapted to indoor painted surfaces. Wipe in circular movements and with moderate pressure.

*NOTE: the use of clips on the back of the panels facilitates cleaning.*

*Always refer to a product's technical datasheet to ensure its compatibility with the described cleaning methods. For more information about advanced cleaning methods, please check the Advanced cleanability page.*



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## CLEANING OF PRODUCTS IN DEMANDING ENVIRONMENTS

In demanding environments, ceilings panels need to be compatible with advanced cleaning, disinfecting and scrubbing methods. Some specific Ecophon products have been designed and tested for more challenging protocols:

- **Wet cleaning at high pressure**

Using a high pressure water equipment, ceiling systems with tiles secured with clips can be washed with pressure set between 20 and 40 bar, keeping a distance of at least 0.5 m between the hose and the panel. For an even higher pressure but not exceeding 100 bar, it is recommended to demount the tiles from the grid system, lay them against a rigid surface and keep a distance of at least 1 m between the hose and the panel. In all cases, it is recommended to keep an angle of incidence of 30° and a water temperature of 20°C. Clean the surface in linear movements.

- **Steam cleaning**

Apply steam to the surface of the panels through a nozzle together with a soft microfibre cloth (made of minimum 70% polyester), in gentle circular movements.

- **Disinfection with Hydrogen Peroxide Vapour**

According to the test method specified by Bioquell

*Note: The use of clips on the back of the panels facilitates cleaning.*



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## INFORMATION ABOUT DISINFECTION

Some specific Ecophon products have been designed to withstand the use of common detergents and disinfecting agents.

The products have been exposed to the detergent or disinfection agents repeatedly and evaluated according to ISO 11998:2006 ("Determination of wet-scrub resistance and cleanability of coatings"), with the use of a soft microfibre cloth made of minimum 70% polyester.



The respective list of tested chemicals can be found on the product page of the relevant products.

*Note: Always refer to a product's technical datasheet to ensure its compatibility with the described cleaning methods.*

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

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## LOADING OF PANELS

The basic rule is that panels should not be loaded. Light fittings, ventilation outlets etc. located in the suspended ceiling must transfer their load to the grid or be attached directly to the structure above. Ecophon panels can, however, bear small loads e.g. halogen spotlights.

FORMAT (MM)	THICKNESS (MM)	MAX HOLE SIZE (Ø MM)	MAX LOAD (GRAMS)
600x600, 1200x600	15	100	300
600x600, 1200x600	≥20	100	500
1200x1200, XL-formats	15-20	-	-

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## LOADING OF CONNECT GRID

The table below each installation diagram shows the maximum service load, i.e. additional loads such as light fittings, signs, etc. placed on the grid at a minimum spacing of at least 1 meter.

For additional information regarding integration of loads see Connect Bridging at [www.ecophon.com](http://www.ecophon.com)

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## PAINTING

Ceiling panels cannot be painted without changing their fire and acoustic properties. They should therefore not be repainted without analysing the consequences.

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## SCRAPPING AND RECYCLING

Ecophon ceiling tiles can easily be dismantled and re-used. Both tiles and grids are recyclable. Grids and accessories are sorted as scrap metal, and tiles are non-hazardous.



# ECOPHON FOCUS™ DT

Ecophon Focus™ Dt has a concealed grid with a decorative aluminium profile between each panel, creating an expressive and elegant design. The system is modular, demountable and easy to install with the possibility to integrate light fittings and ventilation. Focus Dt and Precision Lock system - patent pending.

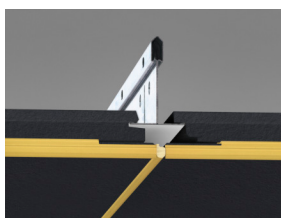


# Ecophon Focus™ Dt

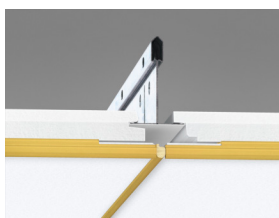
## SYSTEM RANGE



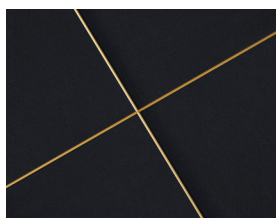
Size, mm	600x600	1200x600
T24	•	•
Thickness (THK)	20	20
Inst. Diagr.	M673, M674	M674



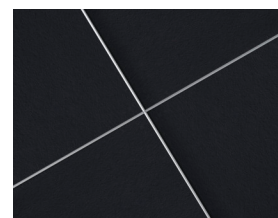
Section of Focus Dt system with Connect T24 Main runner PL. Dark Diamond & gold



Section of Focus Dt system with Connect T24 Main runner PL. White Frost & gold



Focus Dt system, Dark Diamond & gold



Focus Dt system, Dark Diamond & aluminium

## TYPE OF APPLICATION

- Additional areas
- Education
- Healthcare
- Office

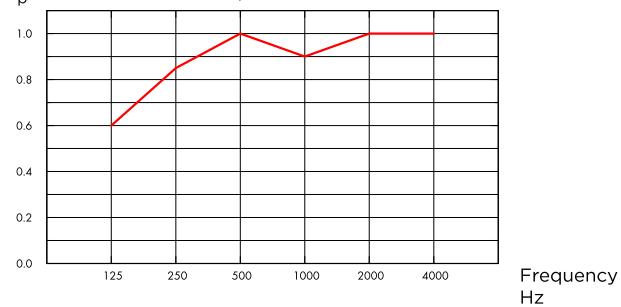


## ACOUSTIC

### Sound Absorption

Test results according to EN ISO 354. Classification according to EN ISO 11654, and the single value rating for Noise Reduction Coefficient, NRC, according to ASTM C 423.

$\alpha_p$ , Practical sound absorption coefficient



— Focus Dt 20 mm, 200 mm o.d.s.  
o.d.s = overall depth of system

THK mm	o.d.s. mm	$\alpha_p$ , Practical sound absorption coefficient						$\alpha_w$	Sound absorption class
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz		
20	200	0.60	0.85	1.00	0.90	1.00	1.00	A	

THK mm	o.d.s. mm	NRC
20	200	0.95



## INDOOR AIR QUALITY

Certificate / Label	
Eurofins Indoor Air Comfort®	IAC Gold
French VOC	A+





## CRADLE TO CRADLE CERTIFIED®

This product is Cradle to Cradle Certified® at Bronze level (version 4.0).



### MATERIAL HEALTH

This product has received a C2C Certified Material Health Certificate™ at the Silver level (standard version 4.0). The C2C Certified Material Health Certificate™ is a verification of the health and safety of a product's composition using the Material Health requirements of the Cradle-to-Cradle Certified Product Standard.



### CARBON FOOTPRINT

Life-cycle stages A1 to C4 from EPD, in conformity with ISO 14025 / EN 15804

	kg CO <sub>2</sub> equiv/m <sup>2</sup>
Focus Ds (EN 15804+A2)	3,68



### CIRCULARITY

Minimum post-consumer recycled content	54%
Recyclability	Fully recyclable



### FIRE SAFETY

The glass wool core of the tiles is tested and classified as non-combustible according to EN ISO 1182.

Country		Class
Europe	EN 13501-1	A2-s1,d0



### HUMIDITY RESISTANCE

Class C, relative humidity 95% and 30°C, according to EN 13964:2014



### VISUAL APPEARANCE

Surface	Colour
Dark Diamond	Nearest NCS colour sample S 9000-N, 4% light reflectance
White Frost	Nearest NCS colour sample S 0500-N, 85% light reflectance. Gloss < 1



### CLEANABILITY

Daily dusting and vacuum cleaning. Weekly wet wiping.



### ACCESSIBILITY

The tiles in size 600x600 is easily demountable. Minimum demounting depth according to installation diagrams.



### INSTALLATION

Installed according to installation diagrams, installation guides and drawing aid. For information regarding minimum overall depth of system see quantity specification. The systems are not recommended for small rooms (approximately 2x2 m<sup>2</sup>). Ceilings with a large amount of integrations require careful planning, design and installation.



### PACKAGING INFORMATION

Information is indicative and subject to change.

	Edge	Panels / crt	m <sup>2</sup> / crt
600x600x20	Dt	20	7.20



## SYSTEM WEIGHT

Weight information is indicative and subject to variation.

	kg/m <sup>2</sup>
Focus Dt	2
Focus Dt + Connect grid system	3,3



## MECHANICAL PROPERTIES

See table about Max live load and Min load bearing capacity and Functional demands, Mechanical properties at [www.ecophon.com](http://www.ecophon.com).


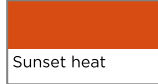

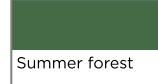



## CE

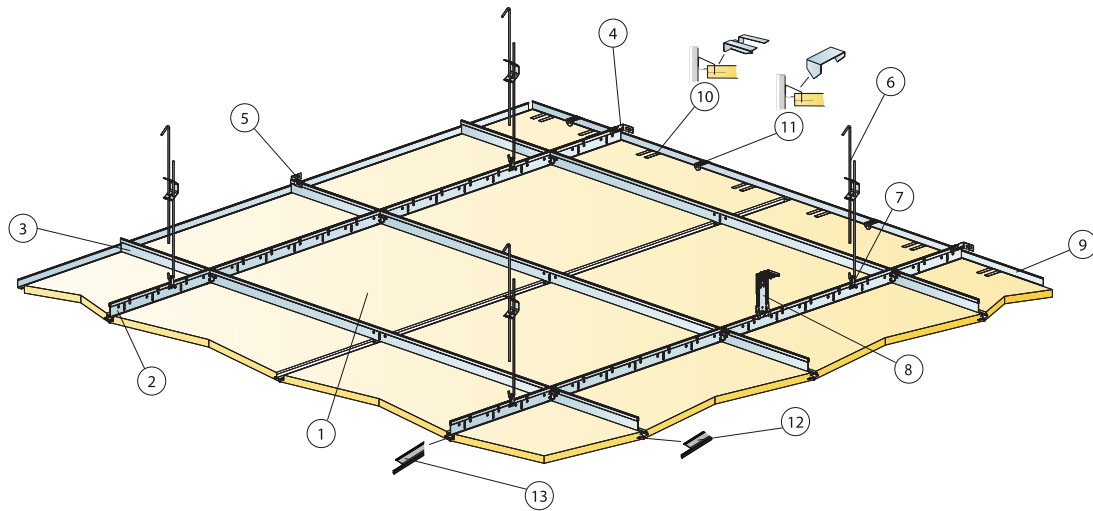
Ecophon ceiling systems are CE marked according to the European harmonized standard EN13964:2014. CE marked construction products are covered by a Declaration of Performance (DOP) which enables customers and users to easily compare performance of products available on the European market.

## COLOURS AND DESIGN

### Akutex™ FT

 White Frost	 Moonlight sky	 Highland fog	 Sunset heat	 Ocean storm	 Morning drizzle	 Peach rose
 Goji berry	 Scallop shells	 Fresh clover	 Sage garden	 Eucalyptus leaf	 Summer forest	 Golden field
 Ruby rock	 Wet sand	 Silent steam	 Dark diamond	 Cloudy day	 Volcanic ash	 Silver stone
 Silk slate						

Suspended, single layer system

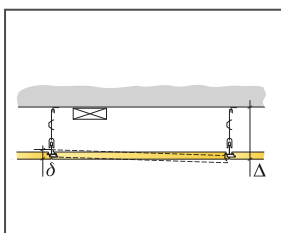


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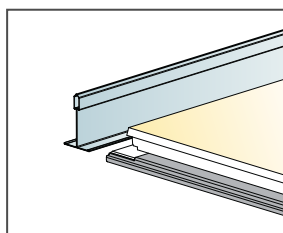
Installation diagram (M673) for Ecophon Focus Dt 600x600. Suspended installation

Quantity specification (excl. wastage)

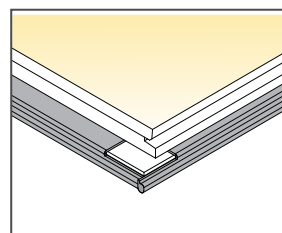
	Size, mm
	<b>600x600</b>
1 Focus Dt	2,8/m <sup>2</sup>
2 Connect T24 Main Runner PL, installed at 1200 mm centres	0,9m/m <sup>2</sup>
3 Connect T24 Cross Tee PL, L=1200 mm, installed at 600 mm centres	1,7m/m <sup>2</sup>
4 Connect Wall Bracket, fixed 1200mm centres for Main runner	2/suspended row of Main runner
5 Connect Wall Bracket, fixed 1200mm centres for Cross tee	1/row of cross tee
6 Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m <sup>2</sup>
7 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m <sup>2</sup>
8 Alt. Connect Adjust direct bracket, installed at 1200 mm centres	0,7/m <sup>2</sup>
9 Connect Angle trim 15/22, fixed at 300 mm centres	as required
10 Connect Support clip Dg20	1/300-400mm with 1 supporting edge
11 Connect Perimeter tile clip	1/perimeter tile with 1 supporting edge
12 Connect Dt trim, L=600	1,7m/m <sup>2</sup>
13 Connect Dt trim, L=596	1,7m/m <sup>2</sup>
Δ Min. overall depth of system, with adjustable hanger: 125 mm, with adjust direct bracket: 85mm	
δ Min. demounting depth: 35 mm	
For luminaire integration in panels use Connect Bridging	as required



See Quantity Specification



Dt trim

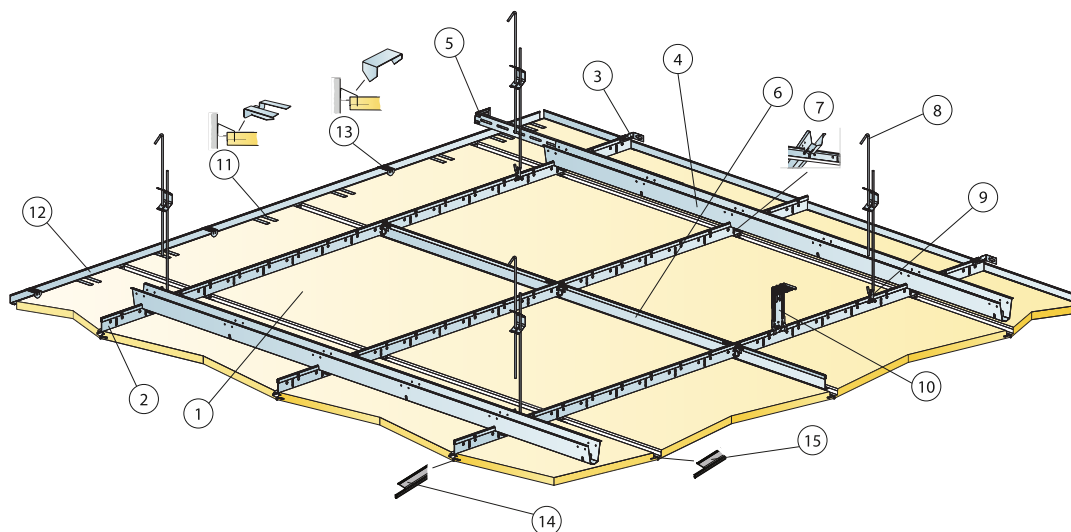


Edge meeting with two Dt trims, L = 600mm & 596mm

Size, mm	Max live load (N)	Min load bearing capacity (N)
600x600x20	50	160

Live load/load bearing capacity

Suspended with Space bar

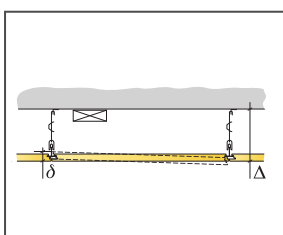


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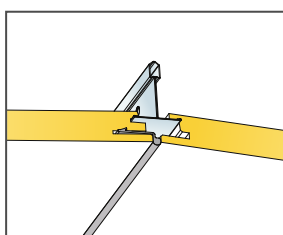
Installation diagram (M674) for Ecophon Focus Dt 600x600, 1200x600. Suspended installation

Quantity specification (excl. wastage)

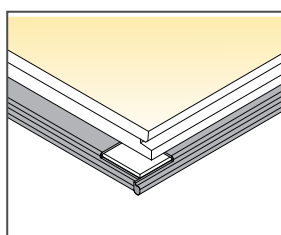
	Size, mm	
	600x600	1200x600
1 Focus Dt	2,8/m <sup>2</sup>	1,4/m <sup>2</sup>
2 Connect T24 Main Runner PL, installed at 600 mm centres	1,7m/m <sup>2</sup>	1,7m/m <sup>2</sup>
3 Connect Wall Bracket for T-profiles	1/suspended row of Main runner	
4 Connect Space Bar, installed at 1500 mm centres (max. distance from wall 300 mm)	0,7m/m <sup>2</sup>	0,7m/m <sup>2</sup>
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 <sup>2</sup>	1,4/m <sup>2</sup>
8 Connect Adjustable Hanger, installed at 1200 mm centres (max. distance from wall 600 mm)	0,7/m <sup>2</sup>	0,7/m <sup>2</sup>
9 Connect Hanger Clip (not to be used in swimming hall environments)	0,7/m <sup>2</sup>	0,7/m <sup>2</sup>
10 Alt. Connect Adjust direct bracket, installed at 1200 mm centres	0,7/m <sup>2</sup>	0,7/m <sup>2</sup>
11 Connect Support clip Dg20	1/300-400mm with 1 supporting edge	
12 Connect Angle trim 15/22, fixed at 300 mm centres	as required	as required
13 Connect Perimeter tile clip	1/perimeter tile with 1 supporting edge	
14 Connect Dt trim, L=600	1,7m/m <sup>2</sup>	1,7m/m <sup>2</sup>
15 Connect Dt trim, L=596	1,7m/m <sup>2</sup>	0,9m/m <sup>2</sup>
Δ Min. overall depth of system, with adjustable hanger: 125 mm, with adjust direct bracket: 140mm		
δ Min. demounting depth: 35 mm		
For luminaire integration in panels use Connect Bridging	as required	as required



See Quantity Specification



Focus Dt section with Dt trim, L = 600mm



Edge meeting with two Dt trims, L = 600mm & 596mm

Size, mm	Max live load (N)	Min load bearing capacity (N)
600x600x20	35	160
1200x600x20	35	160

Live load/load bearing capacity