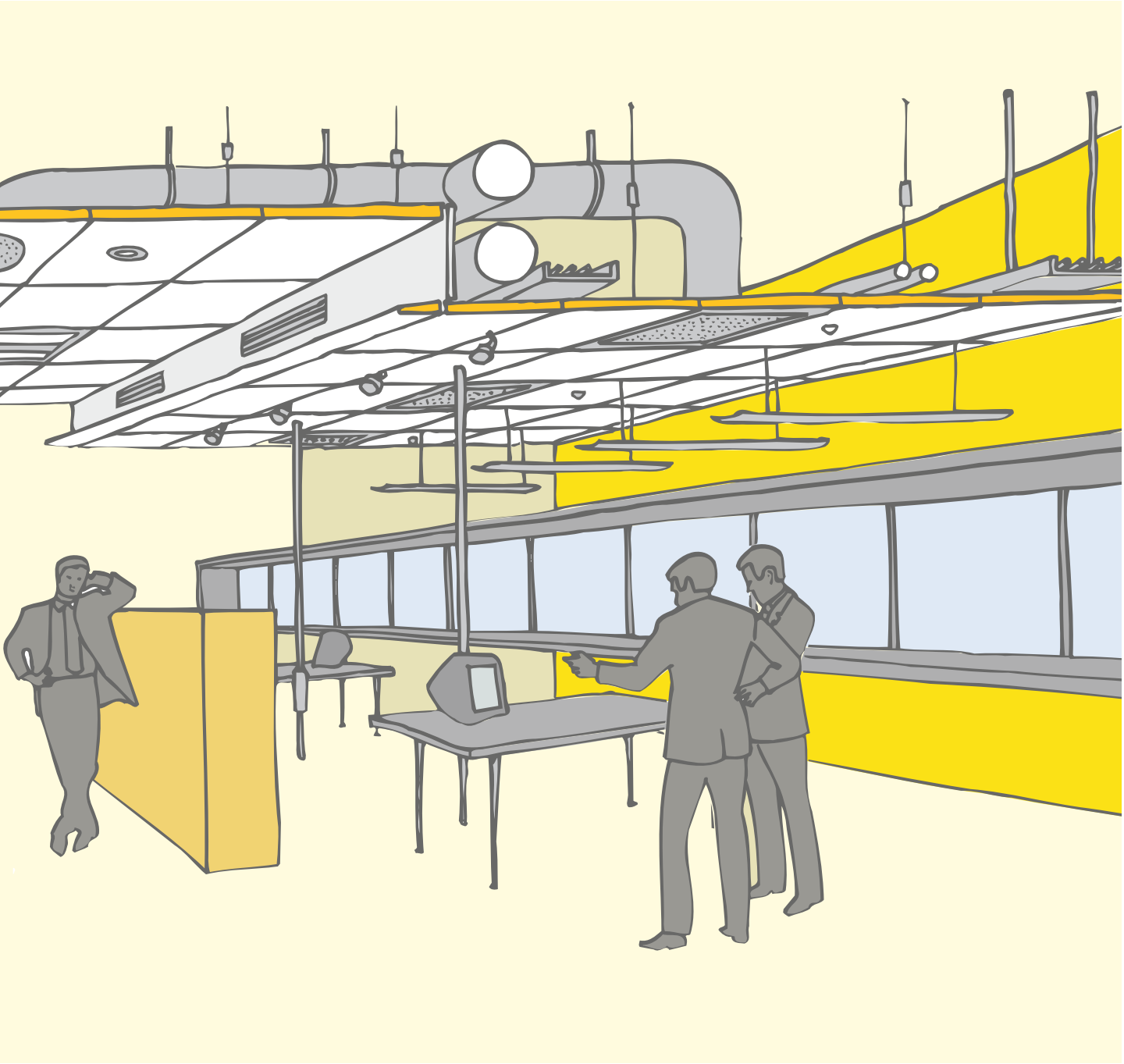
Maintenance guide

for acoustic ceilings, baffles and wall absorbers



Ecophon®
SAINT-GOBAIN
A SOUND EFFECT ON PEOPLE

Maintenance guide

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.

Clean cotton gloves should always be used when handling panels.

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.

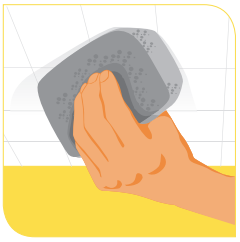
Dusting and vacuum cleaning

Dusting should be carried out with a dry, soft (microfiber) cloth, a soft brush or similar.

Vacuum cleaning should be carried out with reduced suction with a soft brush as used on textiles and curtains.

Wet wiping

Wet wiping should be carried out with a soft sponge or (microfiber) cloth saturated with water or a detergent of the same concentration recommended for use on indoor painted surfaces.
Use circular movements with moderate pressure during wiping of the surface.



Wet cleaning (Low pressure)

Wet cleaning is a three step process. Apply the cleaning foam or gel on the surface to dissolve the dirt. Rinse the surface with water, and wipe it dry with a clean, well wrung-out (microfiber) cloth or sponge so that any dirt released into the rinsing water does not dry and leave stains. Some cleaning agents are quite corrosive - choose a suitable cleaning agent for the system based on the corrosion class.

High pressure washing

High pressure washing uses only water at varying temperatures and pressures.

The recommended working pressure is 2-4 MPa (20-40 bar). Working pressures of up to 8 MPa can be used, provided that the scattering angle is at least 30° and the distance between the nozzle and the surface is at least 300 mm. Most effective rinsing is achieved by holding the nozzle at an angle of about 45° to the surface.

Disinfection

Disinfection is used to kill micro-organisms with common types of chemicals such as ethanol, isopropanol and sodium hypochlorite. Apply the disinfecting chemical by spray or a damp (microfibre) cloth.

Steam cleaning

Steam cleaning uses steam to dissolve stains and kill microorganisms. The steam can be produced at different pressures which creates higher or lower water content of the steam. The steam should be applied through a nozzle together with a microfiber cloth or a soft rubber scraper. Use circular movements with moderate pressure during cleaning.

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.

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	-	-

Ecophon panels can, however, bear small loads e.g. halogen spotlights.

Loading of Connect grid

The table below each installation diagram shows the maximum service load, live loads, on the suspended ceiling, 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/solutions/connect-grids.

Painting

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

The grid can be painted with a suitable paint/lacquer for steel.

Scrapping and recycling

Most of the ceiling panels are recyclable. Damaged ceiling panels that are taken to landfill are regarded as a non-hazardous waste.

The grid and the accessories are recyclable, as scrap metal.

For more information, please contact Ecophon.

Ecophon Solo™ Rectangle

Ecophon Solo™ Rectangle is an acoustic solution, primarily when it is not possible to install a wall-to-wall ceiling. Solo Rectangle is suitable in buildings where the room volume could be maintained or as an option when TABS (Thermally Activated Building System) is selected as cooling system.

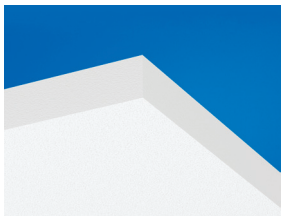
Solo™ Rectangle is an unframed free hanging unit offering a high degree of design possibilities both regarding colours and suspension systems. The three different suspension systems using Adjustable wire hangers, One-point fixing or Adjust brackets in combination with the engineered Connect™ Absorber anchor (patent) give opportunities to create several layers and angles.

The Solo™ Rectangle panel is available in size 2400x1200x40 mm with a weight of 11,5 kg. The panel is manufactured from high density glass wool, with Akutex™ FT surface on both sides. The edges are straight cut and painted.

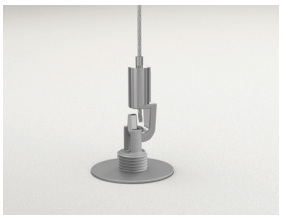
Astratum Hamburger Lloyd, Hamburg, Germany

SYSTEM RANGE

Size, mm	1800x1200	2400x1200
Special Fixing	•	•
Thickness	40	40
Inst. Diagr.	M363	M363

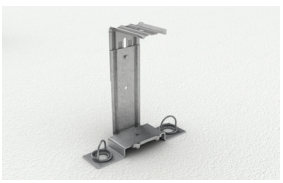


Solo panel



Suspension with Connect Adjustable wire hanger and Connect Absorber

Suspension with One-point fixing

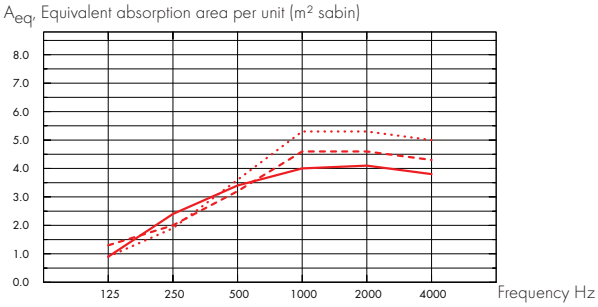


Suspension with Connect Adjust bracket

Acoustic

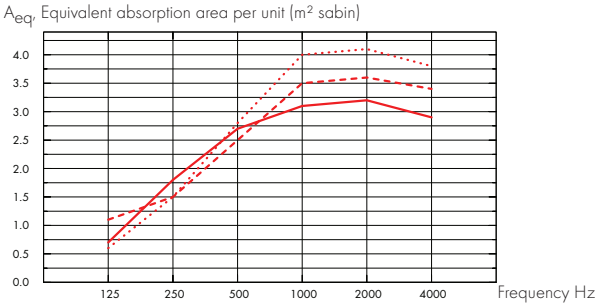
The values in the diagram refer to a single unit. If the units are arranged in a cluster with distances between units less than 0,5 meters, the Aeq per unit will be slightly reduced.

Sound Absorption:
Test results according to EN ISO 354.



– Solo Rectangle 2400x1200, 200 mm o.d.s.
--- Solo Rectangle 2400x1200, 400 mm o.d.s.
··· Solo Rectangle 2400x1200, 1000 mm o.d.s.

o.d.s = overall depth of system



– Solo Rectangle 1800x1200, 200 mm o.d.s.
--- Solo Rectangle 1800x1200, 400 mm o.d.s.
··· Solo Rectangle 1800x1200, 1000 mm o.d.s.

o.d.s = overall depth of system

	THK mm	o.d.s. mm	A_{eq} Equivalent absorption area per unit (m² sabin)					
			125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
2400x1200	40	200	0.90	2.40	3.40	4.00	4.10	3.80
2400x1200	40	400	1.30	2.00	3.20	4.60	4.60	4.30
2400x1200	40	1000	0.90	1.90	3.60	5.30	5.30	5.00
1800x1200	40	200	0.70	1.80	2.70	3.10	3.20	2.90
1800x1200	40	400	1.10	1.50	2.50	3.50	3.60	3.40
1800x1200	40	1000	0.60	1.50	2.80	4.00	4.10	3.80

Accessibility

The tiles are demountable.

Cleanability

Daily dusting and vacuum cleaning. Weekly wet wiping.

Visual appearance

White Frost, nearest NCS colour sample S 0500-N, 85% light reflectance (of which more than 99% is diffuse reflection). Retro reflection coefficient 63 mcd/(m²lx). Gloss < 1.

Influence of climate

The tiles withstand a permanent ambient RH up to 70% at 25°C following the test standard in EN 13964.The tiles are also available for especially demanding conditions. Please contact Ecophon for specifying your project.

Indoor Climate

Certificate / Label	
French VOC, A+	•
Swedish Asthma and Allergy Association	•
Danish Indoor Climate Label	•
California Emission Regulation, CDPH	•
Finnish M1	•

Certified by the Indoor Climate Labelling, recommended by the Swedish Asthma and Allergy Association.

Environmental influence

Fully recyclable

CO_2

Kg CO_2 equiv/m²	7.96

From EPD in conformity with ISO 14040

Fire safety

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

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

Mechanical properties

The tile can take both point loads and distributed loads. See Functional demands, Mechanical properties at www.ecophon.com.

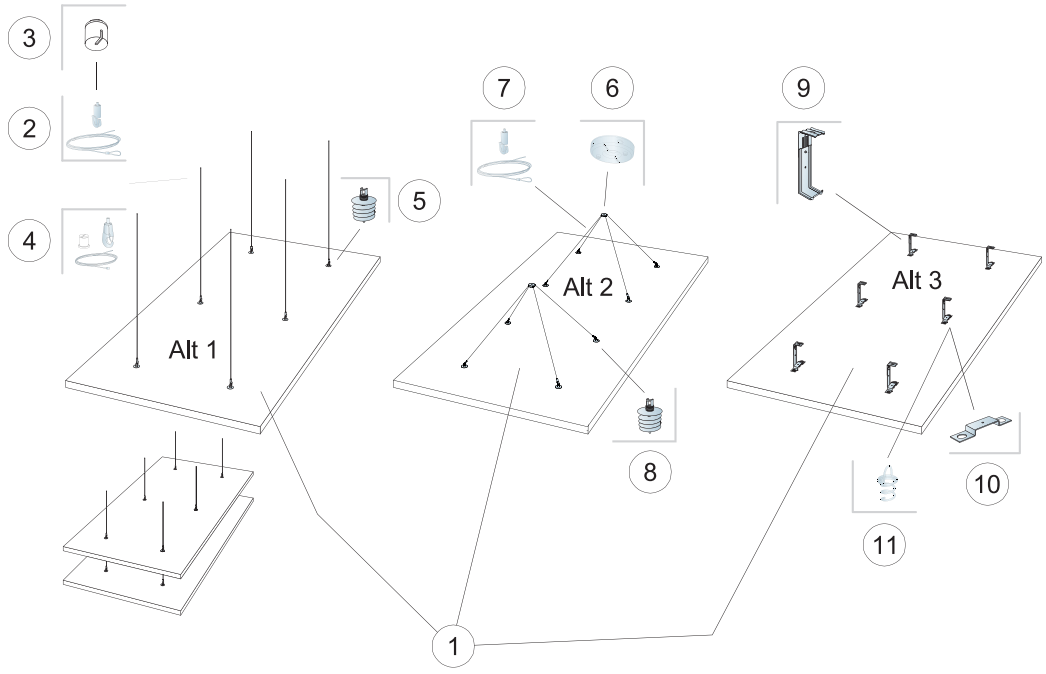
Installation

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

CE

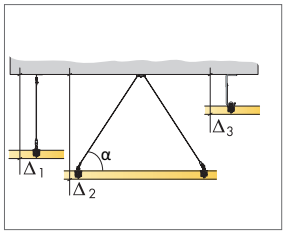
The CE marking confirms important product performance such as sound absorption, emissions, fire safety and load bearing capacity. All Ecophon ceiling products are CE marked according to European standard EN13964, and individual product performance is declared in Declaration of Performance (DoP) documents.

INSTALLATION DIAGRAM (M363) FOR ECOPHON SOLO RECTANGLE

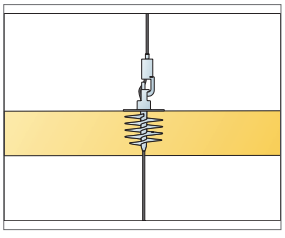


QUANTITY SPECIFICATION (EXCL. WASTAGE)

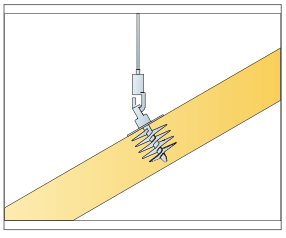
		Size, mm	
		1800x1200	**2400x1200**
1	Solo Rectangle	2,16m²/panel	2,88m²/panel
2	Connect Adjustable wire hanger (Alt 1)		6/panel
3	Connect Covering cup (Alt 1, Optional)	5/panel	6/panel
4	Connect Adjustable wire kit (Alt 1, Optional)		6/panel
5	Connect Absorber anchor (Alt 1)		6/panel
6	Connect One-point fixing (Alt 2)		2/panel
7	Connect Adjustable wire hanger (Alt 2)		4/panel
8	Connect Absorber anchor (Alt 2)		8/panel
9	Connect Adjust bracket (Alt 3)		6/panel
10	Connect Panel fixing plate (Alt 3)		6/panel
11	Connect Spiral anchor (Alt 3)		12pcs/panel
	Δ Min. overall depth of system: Δ1 140 mm / Δ2 500 mm / Δ3 121 mm		-
12	To install Connect Aborber Anchor, use Connect Absorber Anchor Bit.		



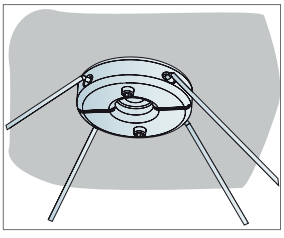
See Quantity specification



Panels can be suspended underneath each other



Panels can be installed in angles



Detail of One-point fixing