

The ideal pool environment with **Ecophon** acoustic solutions



Ecophon[®]
SAINT-GOBAIN

A SOUND EFFECT ON PEOPLE



Bring the outdoors in and create an enjoyable space

People love to have fun in water. Some enjoy swimming length after length in a traditional pool, while others love indoor waterparks with their slides and attractions. But there is one thing that can ruin the experience for everybody - the noise.

For hundreds of thousands of years, our hearing has evolved to provide perfect hearing outdoors, in nature. This is why a noisy pool area can be tiring and uncomfortable. For some it can be unbearable. To assist in these situations, Ecophon provides sound-absorbing solutions that create indoor environments resembling what we experience in nature.

Solutions that withstand direct water

The updated Ecophon product range for swimming pools and waterparks includes wall-to-wall sound-absorbing ceilings, free-hanging absorbers and wall absorbers. Every item in this range has been thoroughly tested according to applicable ISO standards and beyond. We can therefore guarantee that all these products, surfaces and mounting accessories are:

- Water-resistant – unaffected by direct water splashes
- Corrosion-resistant – C4 grids tested in severe conditions
- Chloride-resistant – tested in environments with a high chloride concentration
- Highly humidity-resistant – ISO classified for a relative humidity of 95% at 30°C



Ecophon Hygiene Performance™ Ds and Ecophon Solo™ Rectangle Akutex HS

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.

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

Many activities need consideration

Going to an indoor swimming pool or waterpark is something most people look forward to. It is basically a lot of fun. However, the environments can be very lively and noisy places where sound bounces off the hard surfaces of ceilings, walls and floors, and spreads across the surface of the water.

It is also important to remember that these environments are workplaces. Swimming coaches need to be able to instruct swimmers, and lifeguards need to quickly be able to determine what could be a call for help or a possibly serious incident. When done properly, a healthy sound environment leads to:

- Improved safety
- Increased visitor wellbeing and satisfaction
- Greater staff wellbeing
- Improved communication

In order to create a space with all these benefits, it is important to consider all the activities, the people involved and the design of the space itself. This is what Ecophon calls Activity Based Acoustic Design. So first, let's look at the types of activities and groups of people involved.



Having fun

Activities: Riding water slides, enjoying floating up and down in waves, jumping into the pool, laughing and talking with friends etc.

People: All ages with different levels of maturity and perception. Good swimmers and beginners. They may have hearing or visual impairments. All-in-all a very mixed group.

Learning and teaching

Activities: The pool is a learning environment where people are learning and practising. In addition to swimming they need to communicate continuously.

People: Swimming coaches are mainly adults, while students are mostly children of all ages. They must be able to communicate clearly and calmly. Swimming coaches often teach for several hours a day and noise can lead to voice problems and hearing impairments such as tinnitus.

Care and physical therapy

Activities: All kinds of physical therapy, from swimming and rehabilitating injuries to water therapy for permanent disabilities and water exercises for elderly people. Communication between therapist and patient is continuous.

People: All ages. Besides the specific reasons for their therapy, there are many things to consider. Care and therapy is more successful in a stress-free environment. People may have hearing impairments. People with visual impairments use sound for orientation. Communication needs to be clear and calm.

Relaxation

Activities: Relaxing in whirlpools and pools with different temperatures, spa treatments, talking to friends etc.

People: Mainly adults of all ages. Since the idea is to relax, there should not be any disturbing noise. Conversations should not spread throughout the space and disturb others.



Photographer: Gary Images/Dave and Jacoby Studios



Akutex™ HS is a painted, water-resistant surface that withstands direct splashing with water.



Photographer: 123rf/yadav

Acoustic solutions that fulfil the demands

Defining the activities and the people involved is the start. The next step is to define the acoustic solution that is needed. And finally we need to make sure the solution is safe and secure and that it can withstand direct water, chloride, high humidity and high temperatures.

- 1 Reducing sound levels**
First and foremost, the acoustic solution for swimming pool areas and waterparks needs to reduce sound levels. This will also lead to increased speech clarity. Therefore, Ecophon recommends:
 - A wall-to-wall sound-absorbing ceiling
 - Wall absorbers wherever possible and at least on two adjacent walls
 - Free-hanging absorbers where a wall-to-wall ceiling is not applicable
- 2 Water-resistant absorbers**
It is important to use absorbers that are unaffected by direct water splashes. Ecophon has developed two surfaces specifically for this:
 - Akutex™ HS is a water-resistant surface that withstands direct splashing with water
 - Advance film is a high-performance film that is completely water-proof
- 3 Withstanding high humidity and temperature**
All Ecophon sound absorbers recommended for this environment are tested according to, and comply with, ISO standard EN 13964. The panels withstand a permanent ambient relative humidity (RH) of 95% at 30°C.
- 4 Corrosion-resistant C4 grids**
All recommended Connect™ grids and mounting accessories are corrosion-resistant, with C4 classification according to ISO 12944-2. They also meet the class D requirements of ISO 13964, meaning they tolerate considerably more severe environments than RH 95% and 30°C.
- 5 Chloride-proven products**
To make sure they are fit for purpose, all recommended Ecophon absorbers and grids have been tested in environments with a high chloride concentration.



Ecophon Hygiene Performance™ Baffle C4



Ecophon Solo™ Rectangle Akutex HS and Ecophon Solo™ Square Akutex HS



The Ecophon package

Solutions to trust

Ecophon offers several acoustic solutions that live up to all the demands of swimming pool and shower areas. You can choose between and combine wall-to-wall ceilings, wall absorbers and free-hanging absorbers.

Modular ceilings

Wall applications

Free-hanging units and baffles



Green Building Certification Schemes

Green building certification schemes are becoming important tools to encourage and reward social and environmental responsibility. Ecophon acoustic products have excellent sound-absorbing properties but also have other technical qualities that contribute to the interior environment. Choosing Ecophon solutions can therefore help you earn a variety of credits/points towards your certification by, for example, LEED, BREEAM and WELL. For more detailed information about how Ecophon can assist you towards your certification, please contact us.

Product	Edge design/shape	Pool area (Connect C4)	Shower area (Connect C3)*	Water-resistant	Demountable	Mould-resistant	Wet wiping	Steam cleaning	Low/high pressure washing	Fire Class	Page
Ecophon Hygiene Advance™ A		•	•	•	•	•	•	•	•	A2-s1-d0	15
Ecophon Hygiene Performance™ A		•	•	•	•	•	•	•	•	A2-s1-d0	11
Ecophon Hygiene Performance™ Ds		•		•	•	•	•	•		A2-s1-d0	11
Ecophon Akusto™ Wall C Akutex HS		•		•	•	•	•			A2-s1-d0	13
Ecophon Solo™ Circle Akutex HS		•		•	•	•	•			A2-s1-d0	11
Ecophon Solo™ Square Akutex HS		•		•	•	•	•			A2-s1-d0	11
Ecophon Solo™ Rectangle Akutex HS		•		•	•	•	•			A2-s1-d0	11
Ecophon Hygiene Performance™ Baffle C4		•		•	•	•	•	•	•	A2-s1-d0	13
Connect™ C4		•		•	•	•	•	•	•	A1	15

* Due to less chloride in the air, Connect C3 grids, profiles and accessories are sufficient in shower areas.

Remember that environments with high humidity and temperatures need appropriate ventilation.



Ecophon Hygiene Performance™ A and Ds

Products/sizes	Ecophon Hygiene Performance™ A	600x600x20 mm
		600x600x40 mm
		1200x600x20 mm
		1200x600x40 mm
	Ecophon Hygiene Performance™ Ds	600x600x20 mm
		1200x600x20 mm
Surface	Akutex™ HS	
Sound absorption	α_w 0.95 edge A 20 mm	
	α_w 1.00 edge A 40 mm	
	α_w 0.85 edge Ds 20 mm	
Influence of climate	Relative humidity of 95% at 30 °C	
Suspension	Connect™ C4	
Chloride-tested	Yes	
Colour	White 500. For other colours, please contact Ecophon	



Ecophon Solo™ Rectangle Akutex HS and Ecophon Solo™ Circle Akutex HS

Ecophon Solo™ with Akutex™ HS

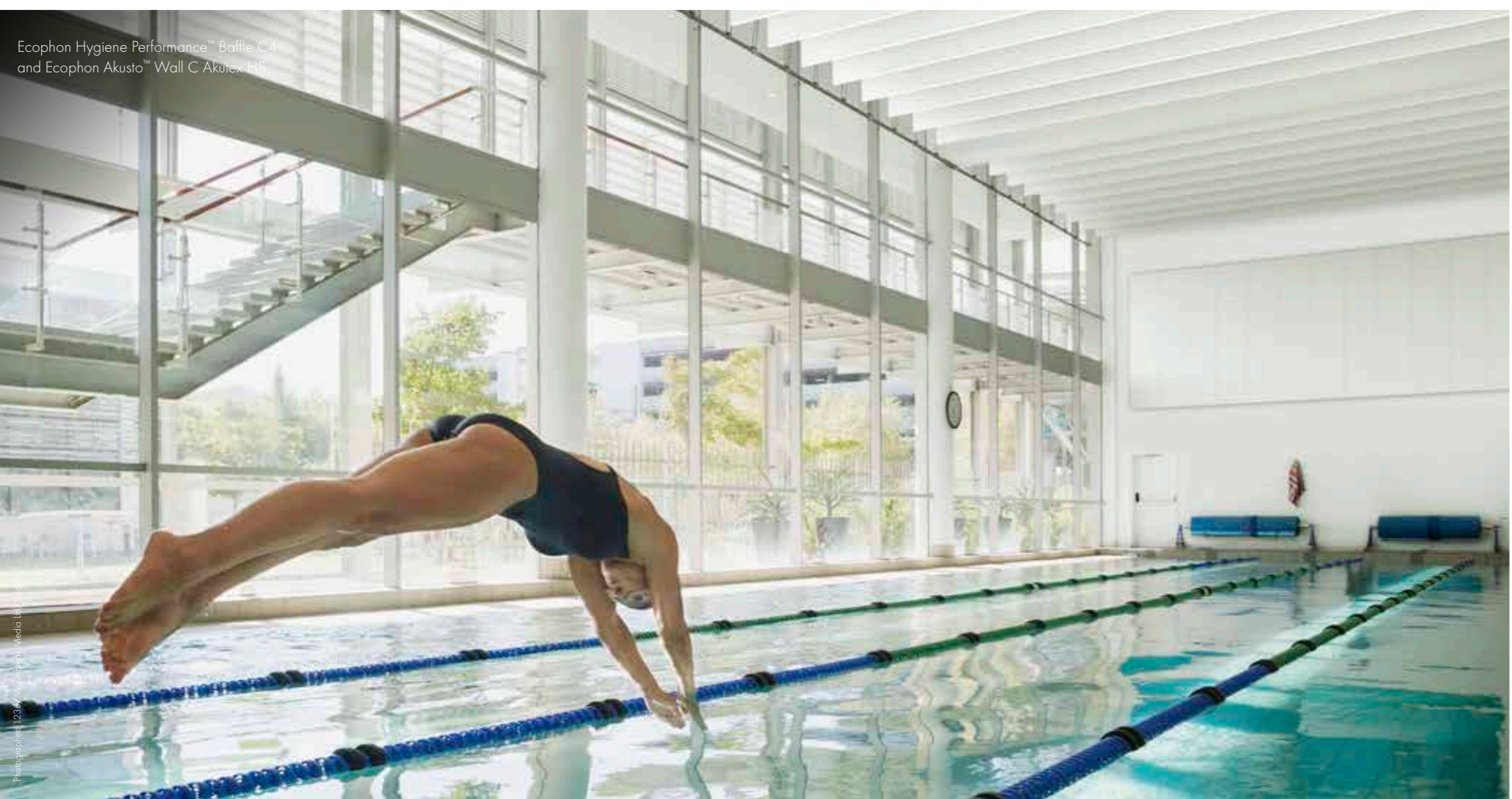
Products/sizes	Ecophon Solo™ Circle Akutex HS	Ø 800x40 mm
		Ø 1200x40 mm
	Ecophon Solo™ Square Akutex HS	1200x1200x40 mm
	Ecophon Solo™ Rectangle Akutex HS	1800x1200x40 mm
		2400x1200x40 mm
Surface	Akutex™ HS	
Sound absorption	Acoustic values in A_{eq} for all Solo products, at different installation heights, are available at ecophon.com	
Influence of climate	Relative humidity of 95% at 30 °C	
Suspension	Connect™ C4	
Chloride-tested	Yes	
Colour	White 500. For other colours, please contact Ecophon	



Ecophon Akusto™ Wall C Akutex HS and Ecophon Solo™ Circle Akutex HS

Ecophon Akusto™ Wall C Akutex HS

Products/sizes	Ecophon Akusto™ Wall C Akutex HS	2700x600x40 mm
Surface	Akutex™ HS	
Sound absorption	α_w 1.00	
Influence of climate	Relative humidity of 95% at 30 °C	
Mounting	Connect Thinline Profile in C4	
Chloride-tested	Yes	
Colour	Absorber: White 500. For other colours, please contact Ecophon Connect Thinline Profile: white, light grey or dark grey	



Ecophon Hygiene Performance™ Baffle C4 and Ecophon Akusto™ Wall C Akutex HS

Ecophon Hygiene Performance™ Baffle C4

Products/sizes	Ecophon Hygiene Performance™ Baffle C4	1200x600x50 mm
Surface	Akutex™ HS	
Sound absorption	α_w 0.65	
Influence of climate	Relative humidity of 95% at 30 °C	
Suspension	Connect™ C4	
Chloride-tested	Yes	
Colour	White 500. For other colours, please contact Ecophon	



Ecophon Hygiene Advance™ A

Products/sizes	Ecophon Hygiene Advance™ A	600x600x20 mm
		600x600x40 mm
		1200x600x20 mm
		1200x600x40 mm
Surface	Advance film	
Sound absorption	α_w 0.85 edge 20 mm	
	α_w 0.90 edge 40 mm	
Influence of climate	Relative humidity of 95% at 30 °C	
Suspension	Connect™ C3	
Colour	Absorber: White 141	
	Grid and profiles: White 500	

In shower areas Ecophon Hygiene Performance™ A is also an applicable solution.

Connect C4 grids and accessories for Ecophon Hygiene Performance™ Ds



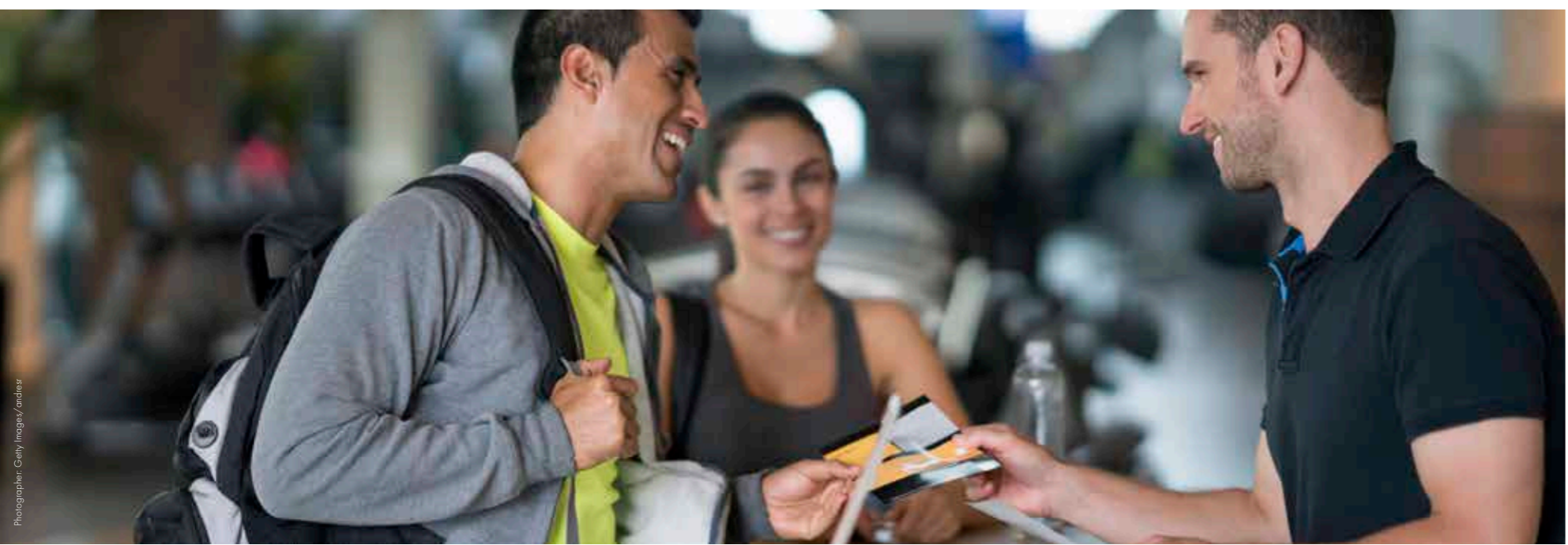
Connect™ C4 grids, profiles and accessories

Third-party tested	Yes	
Test method	NT MAT 003	12 weeks (≥2,000 hours), where every week consists of:
		• One day (24 hours) of salt spray at 35 °C
		• Four days, each consisting of 8 hours at 100% RH / 40 °C followed by 16 hours at 50% RH / 23 °C
		• Two days of drying at 50% RH / 23 °C
Corrosivity category	C4 (ISO 12944-2), corrosion resistance category for demanding environments with high humidity and air pollutants	
Exposure class	Class D (EN 13964), more severe than RH 95% / 30 °C and with corrosive pollutants	
Self-repairing T-profiles	No need to seal edges after cutting, they repair themselves	
Material	Mainly natural materials with high content of zinc	
Colour	Grid and profiles: White 500	
	Connect Thinline Profile: white, light grey or dark grey	



Treat the whole building

Leisure centres and waterparks are often divided into different spaces. Each space is designed for a specific activity and therefore requires a different acoustic solution. Here are some of the activities and spaces you might encounter, together with specific recommendations.



Feeling welcome

An entrance often has large windows, a lot of hard surfaces and a high soffit. The acoustic solution needs to reduce echoes and keep sound levels from escalating.

Product recommendation

- Ecophon Focus™
- Ecophon Solo™
- Ecophon Akusto™



Moving around

Corridors are often very noisy due to sound bouncing off hard surfaces. The acoustic solution needs to reduce sound levels and prevent sound from spreading.

Product recommendation

- Ecophon Focus™
- Ecophon Master™
- Ecophon Akusto™



Changing clothes

In most changing rooms, sound bounces off the hard walls and ceilings and creates high noise levels. The acoustic solution needs to minimize echoes and reduce sound levels.

Product recommendation

Ecophon Hygiene Performance™

Ecophon Super G™



Training and exercising

Training facilities are often very noisy spaces where people can't communicate clearly. Proper acoustics reduce sound levels and improve speech intelligibility.

Product recommendation

Ecophon Super G™

Ecophon Akusto™ Wall Super G



Enjoying a meal

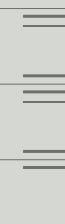
The typical canteen is a large open space with stressful and high noise levels. Sound absorbers can hinder sound from spreading and reduce sound levels.

Product recommendation

Ecophon Master™

Ecophon Focus™

Ecophon Akusto™



Ecophon®

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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.



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