CHOOSING THE RIGHT ACOUSTIC CEILING MAKES A WORLD OF DIFFERENCE
INTRODUCING
THE MOST
SUSTAINABLE
ACOUSTIC
CEILING RANGE
IN THE
MARKET*

Gyptone® Activ’Air

More impact on indoor environment
Less impact on outdoor environment

Gyptone Activ’Air acoustic ceilings are leading the way when it comes to acoustic improvement in schools, institutions, hospitals, homes and offices. Gyptone acoustic ceilings and acoustic walls will reduce echo and reverberation time hence ensuring improved speech clarity and less bothersome noise in the room.

The new Gyptone Activ’Air range consists of fully demountable lay-in systems in 600 x 600 mm and 625 x 625 mm formats (edge A and E15) and non-demountable acoustic ceilings 1200 x 2400 mm and 900 x 2700 mm format for large seamless surfaces. All products have unique market leading LCA values and VOC reducing properties.

* Based on a comparison of published LCI’s for different ceiling types on key parameters for energy consumption, water consumption and CO2 emissions from cradle to gate. Details are verified by COWI.
Gyptone Activ’Air

WHY?
More than 40 million square metres of ceiling are installed on an annual basis in Europe alone. Acoustic ceilings are available in many different designs and materials and the production of these many kinds of acoustic ceilings emit CO₂ and consume large volumes of energy and water.

CAN SOMETHING BE DONE ABOUT THIS?
We believe that this consumption and emission must be reduced. With Gyptone we have worked intensely for several years on acoustic ceilings that not only live up to the market’s and building code’s requirements, but also incur the challenges of the future with regard to resource consumption, climate and sustainability. Today, this is an important part of our foundation – and an important area throughout our product development.

Consequently, we are launching a new series of acoustic ceilings that have the market’s lowest combined CO₂ emission, energy consumption and water consumption per square metre ever seen in an acoustic ceilings product life cycle. Moreover, it has the market’s lowest VOC emission.

HOW DOES THIS AFFECT YOUR BUILDING?
By using an acoustic ceiling with the lowest possible energy consumption, water consumption and CO₂ emission per square metre, you are significantly reducing the impact on the environment. The difference in consumption and emission in the product life cycle between Gyptone Activ’Air and the poorest performing acoustic ceiling is more than 700% - therefore, the choice is important!

MARKET LEADER ON INDOOR CLIMATE IMPROVEMENTS
By choosing Gyptone Activ’Air, in addition to improving the acoustic indoor climate, you also improve the indoor air quality where VOCs like formaldehyde are decomposed and removed with the Activ’Air technology. This contributes to meeting the formaldehyde concentration limits defined by WHO (World Health Organisation) and ensures a healthy indoor climate for the children and adults who use the rooms.

MEETS THE DEVELOPER REQUIREMENTS ON SUSTAINABILITY AND CERTIFICATION
The end result is that your building project will be able to meet the developer's requirements on using the most sustainable building materials that give the least possible impact on the external environment as well as the indoor climate.

Gyptone Activ’Air improves the indoor air quality and the environmental life cycle values of the whole building project and qualifies for more points in connection with construction certifications such as DGNB, BREEAM, LEED or HQE.
A large part of the energy consumption in the production of acoustic ceilings is used on heating. Therefore, through many years of product and process development we have reduced the heat consumption and increased the recovery of heat by using new effective heat exchanging systems. In addition, recirculation of water has been a priority to reduce water consumption. We use the residual product, industrial gypsum, and recycled gypsum in order to reduce the use of new raw materials.

Our process technology and material properties therefore ensure very low energy consumption, CO₂ emission, consumption of raw materials and heat consumption in our production – actually the lowest on the market.

Think about what will happen if the most sustainable acoustic ceiling was chosen for all building projects in Europe…

*The estimates are based on average considerations based on factual figures in published EPDs for different kinds of acoustic ceilings.*

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241.200.000 KG

carbon dioxide (CO₂) less per year

2.520.000.000 MEGA JOULE

energy less per year

874.800.000 LITRES

water less per year

... that’s how much CO₂, energy and water consumption would be reduced by choosing Gyptone acoustic ceilings for the building projects in Europe.
People spend up to 80% of their time indoors. Therefore, the air quality that surrounds them where they live and work is very important. Since other materials such as furniture, carpets, paint, etc. degas, a VOC concentration will build up in the room. Gyptone ActivAir is designed specifically to decompose these VOC emissions from other materials. The patented technology decomposes VOCs, such as formaldehyde, into non-harmful inert compounds. ActivAir can reduce formaldehyde room concentrations by a leading 70%. The result is a significantly improved indoor air quality in schools, hospitals, offices, etc.*

**BEST IN CLASS IN NEW LABELLING SCHEME**

Gyptone ActivAir acoustic ceilings do not contain any hazardous additives or binding agents. Tests and thorough measurements show that degassing of formaldehyde cannot be registered. All Gyptone ActivAir acoustic ceilings carry the “Danish Indoor Climate” label and the new mandatory French health label “A+”, the requirements of which, regarding formaldehyde emission, are ten times more strict than earlier labelling schemes. Gyptone ActivAir acoustic ceilings are approved in best class.

* The effectiveness of the ActivAir technology has been tested by the accredited Eurofins laboratory. The test shows that ActivAir decomposes up to 70% of the formaldehyde in a controlled test environment.
USE RECYCLABLE MATERIALS
Since the alternative to recycling is disposal, which is connected to both costs and environmental impact, building materials need to be chosen that can be fully recycled after use. Gyptone Activ'Air acoustic ceilings can be fully recycled into the manufacturing of new ceilings.
Gyproc has an established, effective collection and recycling system for used gypsum boards and ceilings. The collected gypsum is used in the production of new gypsum products.

SYMBIOSIS – UTILISATION OF RESIDUAL AND BY-PRODUCTS FROM SYMBIOSIS PARTNERS
Together with six major companies, Gyproc participates in an industrial symbiosis cooperation in Kalundborg where the whole concept is to recycle each other’s residual and by-products and reduce the overall energy consumption. For example, Gyproc receives large volumes of industrial gypsum, which is a by-product from the energy production of another symbiosis partner. This gypsum is used in the production of gypsum boards for ceilings. We likewise use recycled paper for liner and recycled cardboard for packaging.
By optimising our use of raw materials, and knowledge on process technology, we have further developed our acoustic ceilings with the aim of giving them leading indoor climate properties and sustainability properties. Part of the development has been to reduce the weight and thickness of Gypstone Activ’Air lay-in tiles. This results in more easy handling and installation on the building site. In addition, the reduction in thickness has contributed to a reduction of stock- ing space requirements by approx. 25%. Gypstone Activ’Air tiles are now delivered with more square metres per carton and per pallet, which reduces the transport costs by an average of 10-15%.

The reduction in weight and space requirements thus positively contribute to the entire value chain and in the product life cycle, from procurement of raw materials to delivery and installation at the building site all the way to recycling at end-of-life.
It is important to use materials that have a long lifetime in order to avoid resource demanding renewals during the building’s period of utilisation.

Gyptone acoustic ceilings and walls are very suitable since the material is strong and durable and has a lifetime of more than 50 years. The long lifetime is also enhanced by the possibility of repairing and painting the surfaces without impairing the acoustic properties. These properties mean that in several cases you can reduce the total ceiling costs by more than 50% in comparison to other types of ceilings when seen over a 30-year period.
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As a wall solution, the sound waves reflected between the walls (also called flutter echo) can be reduced. With Gyptone Activ’Air BIG boards, it is possible to integrate sound-absorbing BIG boards into the walls in the same level surface. The combination of a ceiling and wall solution will result in a more harmonic acoustic and aesthetic solution.
The environmental advantages of Gyptone Activ’Air are documented in relation to DGNB, LEED, BREEAM and HQE.

For example, Gyptone Activ’Air contributes positively to DGNB certifications due to the leading LCA values. Credits are likewise given in LEED for the strong VOC properties in the form of low emission, acoustic and innovative properties.

Gyptone Activ’Air’s LCA values are documented in third party verified EPDs. Furthermore, Gyptone Activ’Air will be registered in DGNB’s ESOCU database and in BREEAM’s Green Guide. We have also prepared LEED Letters for Gyptone Activ’air. You can download this documentation at www.gyptone.com.
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