

**Gyptone®**

## Gyptone® BIG Curve

Curved acoustic boards without visible joints for ceilings and walls





# Gyptone® BIG Curve

The ideal solution for creative environments.

## Content

Acoustics	4
Design	6
Indoor air quality	10
Sustainability	14
Installation & Maintenance	16
Robustness, durability and fire safety	19
Product details	20
Curve overview	21



# Acoustics

## Good acoustics – key to successful spaces

How do you define a comfortable space? What are the elements that make it so enjoyable? Aesthetic design, yes. Natural light and strong temperature control, too. But above everything sits acoustic comfort.

A lack of acoustic comfort often means too much noise. Unwanted sound that has a negative impact on a community's ability to live, learn or work in a given space. Good acoustic comfort, on the other hand, with appropriate acoustic reverberation times and high speech clarity, creates a functioning, calming environment that is pleasant for all users.

An important part of a good and healthy indoor climate is efficient sound absorption. The effects of poor acoustics are well recognised and particularly unpleasant: Unfavourable acoustic environments and high noise levels can lead to an increase in heart rate and blood pressure, as well as discomfort, annoyance and an increased risk of inappropriate behaviour\*.

## Strengthen your communication

Beside from its damaging effects on health and behaviour, poor acoustics can also be a major impediment to effective communication. Whether you're building a school, healthcare facility, office or hotel, communication and speech clarity is key.

Studies from the United States have shown that classrooms often have speech intelligibility ratings of 75% or less, meaning every fourth word is either misunderstood or not understood at all\*. Now imagine the impact that has a child's ability to concentrate and learn.

\* SafeWork SA. "Noise & vibration in the workplace": Government of South Australia

But what is the answer? Significantly reducing the number of noise sources is unrealistic. So too – in the short-term at least – is decreasing the amount of hard surface materials used in modern construction methods.

There is, though, another way. By using high-class, sound absorbent materials such as Gyptone BIG Curve, it is possible to improve the control of noise levels and create positive and healthy acoustic environments and indoor climates.

## A life-changing impact

Within our acoustic gypsum portfolio we can absorb up to 85% of the sound that hits the surface, creating the perfect balance between sound absorption, sound diffusion and sound reflection. It is within this balance that you find the optimal acoustic comfort and the best promotion of speech clarity.

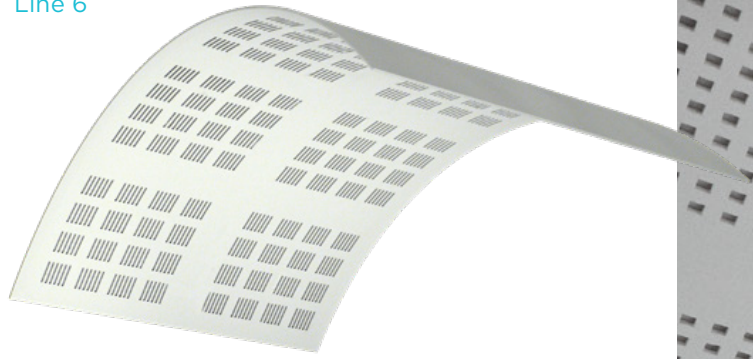
Sound reduction alone is simply not enough to deliver the acoustic comfort a modern-day construction demands. That's because when sound reduction is overdone, it can quickly damage speech clarity and create an unpleasant indoor climate. The optimal acoustic environment is not achieved by sound reduction, but by acoustic control. A control that is easily achieved when using Gyptone BIG Curve.

A sound-regulated environment, where some sound waves are reflected while others are absorbed, ensures strong speech intelligibility and a pleasant acoustic environment. In practical terms, students sitting at the back of a sound-regulated classroom will hear their teacher just as clearly as those sitting at the front – ensuring a truly life-changing impact.

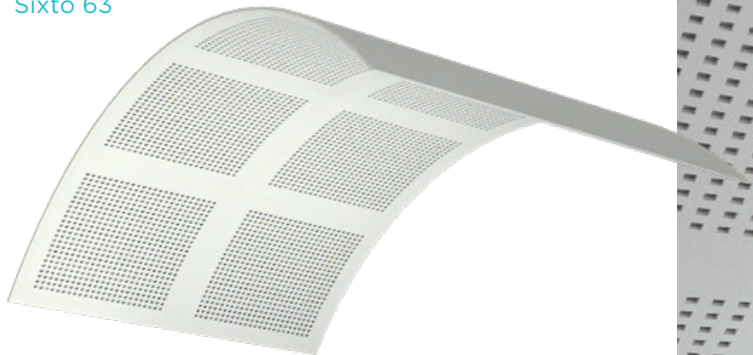
\* Seep, B., Glosemeyer, R., Hulce, E., Linn, M., & Aytar, P. "Classroom acoustics: A resource for creating learning environments with desirable listening conditions." NY: Acoustical Society of America (2000).



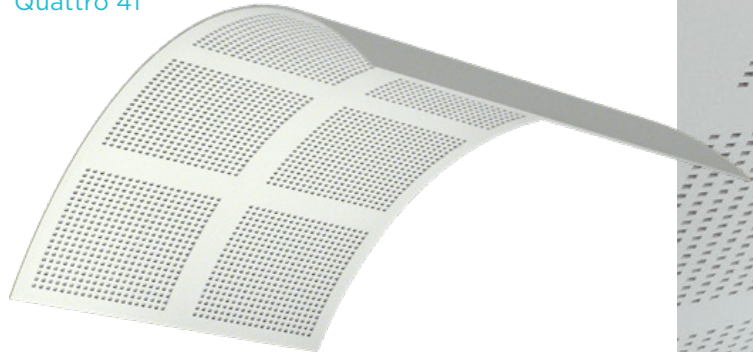
Line 6



Sixto 63



Quattro 41



Base 31



Gyptone® BIG Curve are available in four designs. Special designs can be made on request.

## Design

### Designing a better performing space

People have always shaped their environments to serve their needs: our homes provide comfort, our workplaces encourage productivity, our hospitals support good health and our schools facilitate learning. But did you know that architecture and design can promote personal wellbeing, heighten the mood – and even increase performance?\*

To do that successfully, we need a more holistic view of the way we design our buildings. One that begins with the environment in which patients, students and co-workers spend their time. This means choosing the right construction materials not only in terms of functionality, but also their aesthetic appeal and design.

### Functional excellence and aesthetic appeal

Gyptone's diverse portfolio of robust, sound-absorbing and sustainable ceilings and wall linings is the ideal choice for most indoor environments. Combining functional excellence with aesthetic appeal, our products enable the creation of superior interior spaces that encourage and support the people using them.

In fact, with Gyptone you can create a spectacular look while still using a durable material with good acoustic properties. And if you need access to underlying installations, easy access to installations behind the ceiling is required.

\* Ampt A, Harris P, Maxwell M. 2008 The Health Impacts of the Design of Hospital Facilities on Patient Recovery and Wellbeing, and Staff Wellbeing: A Review of the Literature. Centre for Primary Health Care and Equity, University of New South Wales: Sydney.



Can be curved down  
to a radius of 2.2 m  
in dry conditions,  
and 1.2 m in wet





# Indoor air quality

## Cleaner indoor air quality

You may not know it, but invisible pollutants surround us at almost every turn – especially indoors.

Traditional air pollution concerns have focused on high-density urban areas, where traffic is busy and CO<sub>2</sub>-emission levels are considered dangerous. But there is still an indoor danger to tackle.

Construction materials, furniture, carpets, electronic equipment and items of clothing all emit volatile organic compounds (VOCs) such as formaldehyde. According to the World Health Organization (WHO), formaldehyde affects our health.

High concentrations can cause cancer, nausea, headaches and other unpleasant symptoms – none of which should be part of a modern construction of a school, hospital, workplace or public space.

Today, Gyptone ceilings feature Activ'Air, a patented technology that actively breaks formaldehyde down into harmless, non-volatile compounds. The effectiveness of the Activ'Air technology has been tested by the accredited Eurofins laboratory, and it has been proven to promote good health and wellbeing.

In fact, its effect has been shown to last for more than 50 years – creating a safe, welcoming and healthy indoor environment for generations to come. This best-in-class development also contributes to success in certifications such as Leadership in Energy and Environmental Design (LEED) and Building Research Establishment Environmental Assessment Method (BREEAM).





# Indoor air quality

## Tested and approved

All Gyptone products are tested and approved in the highest class by Danish Indoor Climate Labelling, the Finnish M1 classification, and the French health and environmental authorities.

Our acoustic ceilings are produced with one of the market's lowest levels of CO<sub>2</sub>-emissions, energy consumption and water consumption per m<sup>2</sup>.



\* Based on a comparison of six published EPDs for different types of ceilings, with results verified by COWI A/S.



# Sustainability

## A sustainable approach to better acoustics

Superb acoustics make a room come to life. The challenge is achieving those results with the minimum possible environmental impact.

That's why we've developed a sustainable approach that shapes every service we offer and product we make. Its principles are embedded at every stage of our product lifecycle, from raw material sourcing and production through to recycling at the end of the building life.

We closely monitor the environmental impact of our products, using widely-accepted life cycle assessment (LCA) techniques to provide the transparency and meaningful data needed for comparisons by architects, builders and end-users.

Another part of our focus ensures we use environmentally-responsible raw materials in our manufacturing processes. All Gyptone products are 100% recyclable.

Our packaging can be recycled or re-used. And we constantly strive to reduce our consumption of energy, raw materials and packaging, making Gyptone acoustic ceilings one of the few solutions with a sustainable environmental impact.

Even after installation, our commitment to sustainability continues. All Gyptone products can be repainted again and again, without compromising the acoustic performance. Gyptone products can also help you secure high scores in international building schemes, such as LEED, BREEAM and DGNB.





# Installation & Maintenance

## Reduced installation and maintenance costs

Choosing an acoustic ceiling or wall is a complex decision. Only by considering the total cost of ownership – not just the product cost, but also the cost of installation and maintenance – can you arrive at an informed choice.

So as well as a smooth, strong and high performing solution, choosing Gyptone means your installation can be handled with speed and precision, while architects and owners alike will be thrilled with a consistent finish.

Maintaining a Gyptone ceiling is simple and straightforward. Once installed, they can be maintained using any normal cleaning practices and neutral cleaning solutions. You can even use a vacuum cleaner!

## Repaint with ease

If you want to refresh your look, any tiles can be repainted with ease – as many times as you like. So whatever décor you choose, you can rest assured that the acoustic properties and fire safety support of your Gyptone BIG Curve will not be affected.





## Robustness, durability and fire safety

### The strong and safe choice

When strength matters, Gyptone is the only solution to consider.

All Gyptone solutions, including Gyptone BIG Curve, are strong, robust, and provide excellent pressure resistance. What's more, Gyptone BIG Curve boards do not decompose over time – so you won't face the unwelcome prospect of paying for costly replacements in just a few years' time.

Gyptone BIG Curve's flexibility is especially useful if you have a range of different installations to consider. But whatever design you choose, strength will not be a concern. Each Gyptone BIG Curve board can be point-loaded with up to 3 kg/m<sup>2</sup>.

With our standard jointing technique, you don't just benefit from a smooth and aesthetic result. You also get joints that are stronger than the Gyptone BIG Curve board itself, meaning you can even point-load the area where you joint your Gyptone BIG Curve ceiling or wall.

Finally, Gyptone BIG Curve boards come complete with excellent fire protection properties. Our solutions are tested according to both EN 13501-1 and ASTM E84 standards, meeting and exceeding all the necessary fire safety requirements both in terms of their reaction to fire and their fire protection qualities.

When it comes to ceilings and walls, Gyptone solutions are not just the strong, smart choice – they're the safe choice, too.



# Product details

## Specifications

Dimensions	1200 x 2400 mm
Thickness	6.5 mm
Weight	6,5 kg/m²*
Edge	B1
Colour	Unpainted
Reaction to fire	A2-s1, d0

\*Gyptone Base weight is 7,5 kg/m²

Gyptone BIG Curve acoustic solutions allow you to create large surfaces without visible joints.

The perforation provides, in combination with the underlying acoustic tissue, good acoustic properties.

## Installation

Consealed metal grid



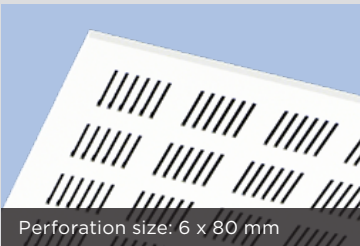
Consealed wooden beam



Gyptone BIG Curve is suitable for direct fixing on wood or screw fixing on suspended metal grid. The system is not demountable.

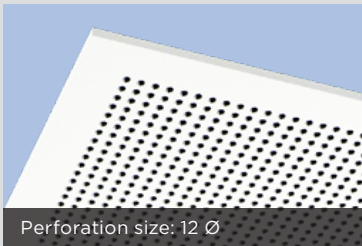
## Patterns

Line



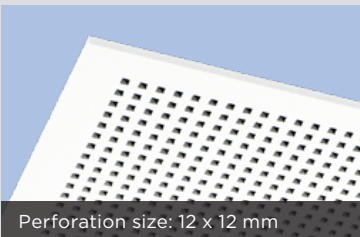
Perforation size: 6 x 80 mm

Sixto



Perforation size: 12 Ø

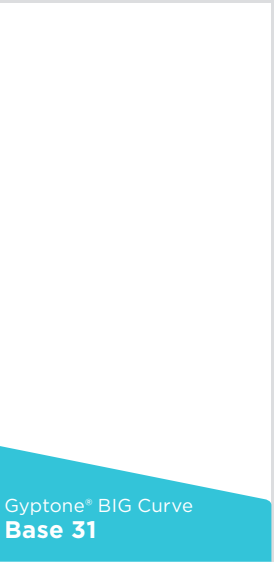
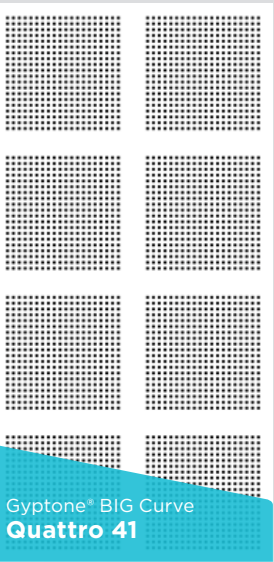
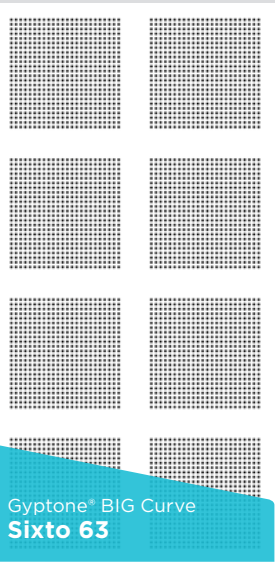
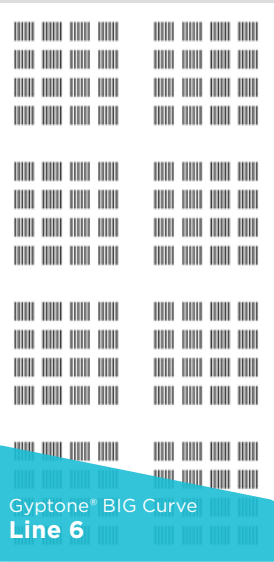
Quattro



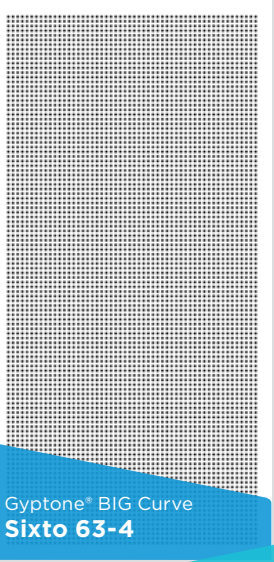
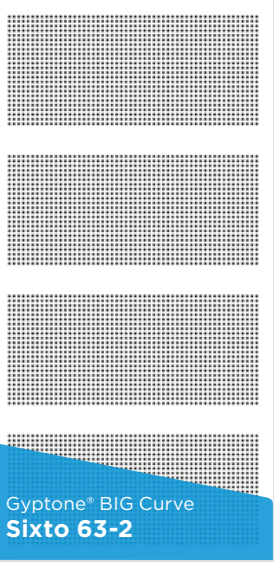
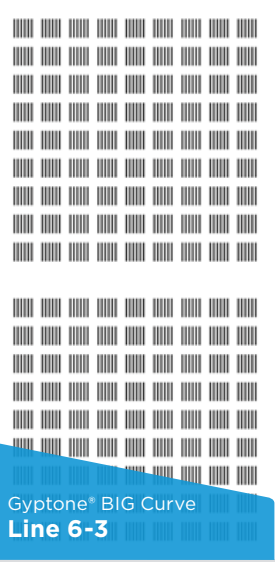
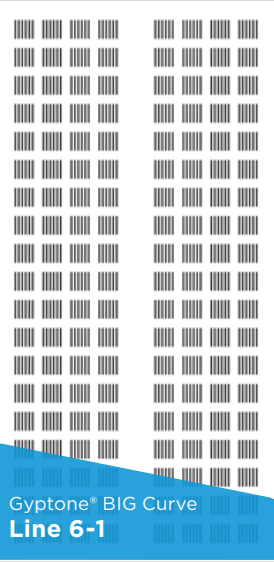
Perforation size: 12 x 12 mm

Gyptone BIG Curve range includes oblong, point or square perforations which comes in different designs. You can get the full overview of the product range on next page.

# Standard products Gyptone® BIG Curve



# Special products Gyptone® BIG Curve



Gyptone ceilings feature Activ'Air, a patented technology that actively breaks formaldehyde down into harmless, non-volatile compounds.

There are many other options to customize your preferred BIG Curve design.

Please contact us for more information.



**Gyptone® BIG Curve ceilings**  
are made from natural materials  
and 100% recyclable.





Gyptone® acoustic solutions can be used in nearly any room that requires excellent acoustics and design. Our systems provide a good indoor air quality and strong surfaces with a very long lifespan based on sustainable manufacturing. Gyptone® is produced and marketed by Saint-Gobain.

## Gyptone Systems include:

- Gyptone® Tiles
- Gyptone® BIG boards
- Gyptone® BIG Curve

For more information visit:

**[www.gyptone.com](http://www.gyptone.com)**

## Contact:

Head office and factory  
Gyproc A/S  
Hareskovvej 12  
DK-4400 Kalundborg  
Denmark

Tel.: +45 5957 0330  
Fax: +45 5957 0301

Email: [info.gyprocdk@saint-gobain.com](mailto:info.gyprocdk@saint-gobain.com)