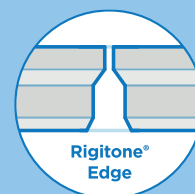




NEW



Rigitone®

*The most beautiful sensations of well-being
are created when you look up!*

Because the **most beautiful sensations of well-being** are created with our products!

At Placo®, our priority has always been to adapt to your needs in the long term. For this reason, with this ambition in mind, we're developing our Rigitone® range of decorative and acoustic ceilings by introducing a **a brand new chamfered edge** to **facilitate the installation of our panels and reduce the consumption of Rigitone® Mix jointing filler.**

Thus **Rigitone® Edge will provide you with the best solutions** for the realisation of even the most ambitious projects.

In addition to **retaining its unique aesthetics**, Rigitone® Edge will enable you to **considerably improve acoustic comfort for all occupants** and to **meet the regulatory requirements** imposed in Public Buildings.

In addition to its **100% French manufacturing, sustainable development** has always been a founding element at Placo®.

As a result, our panels contain on average **20% recycled material** in their manufacture.

Indoor air quality is not overlooked either: Rigitone® Edge also incorporates our **Activ'Air®** technology, which allows **up to 70% of formaldehydes** present in the ambient air to be neutralised.

Discover the Rigitone® range from all angles, which will seduce you through **its great creative freedom and ease of use.**

Rigitone®: ceilings that inspire creativity and well-being.

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Rigitone® Edge & Rigitone®



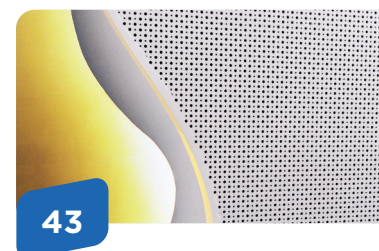
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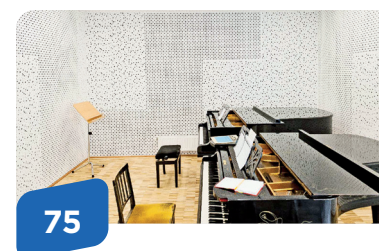


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Breathing well is essential!

Several studies have shown that the air we breathe is much more polluted indoors than outdoors. The degradation of indoor air can lead to symptoms such as headaches, fatigue, irritation, dizziness, etc.

Faced with this observation, the quality of indoor air is becoming a public health concern.

Indoor air is therefore a precious asset for our health and well-being. To improve and clean up the air we breathe, all we have to do is pay attention, respect certain rules and provide appropriate solutions.

Did you know?

- We spend **90%** of our time in enclosed spaces: at home, at work, at school, etc.
- We breathe 8,000 to 12,000 litres of air per day, which is **10 to 15kg!**

WHERE DO INDOOR AIR POLLUTANTS COME FROM AND WHAT ARE THEY?

The degradation of the quality of indoor air comes from multiple sources: building and decoration materials, poorly regulated heating or air conditioning systems, human activity (cleaning products, etc.). Pollutants can be of various types: physical, chemical, bacteriological, etc. However, the pollutants known as "VOCs" (Volatile Organic Compounds) are the most important because they can be up to **15 times more present in indoor air** than in outdoor air.

In the family of VOCs, formaldehyde can also be up to 15 times more present indoors than outdoors, both in summer and winter. According to recent studies by the Observatoire de la Qualité de l'Air Intérieur (Observatory of Indoor Air Quality), **85% of buildings** have a concentration of formaldehyde above the threshold of 10 µg/m³, with 20 µg/m³ of air on average and values up to 80 µg/m³!

WHAT IF MY INDOOR AIR IS ALREADY POLLUTED?

Today, there are POLLUTION-REMOVAL MATERIALS that can act on the quality of the air in your home. At Placo®, a patented, effective and sustainable pollution-removal solution has been integrated into many products: plasterboards, plasters, ceilings, etc.

This solution is based on an innovative technology, Activ'Air® technology, which reduces formaldehyde in the air by up to 70%.

An inert compound incorporated into the gypsum during the manufacture of the plasterboards enables formaldehyde from the ambient air to be absorbed and transformed into an inert compound stored in the core of the board without release. Activ'Air® technology remains active for over 50 years. Moreover, it is compatible with most finishes (paint, wallpaper, etc.). As you can see, breathing well is essential.

Indoor air is therefore a precious asset for our health and well-being. To improve and clean up the air we breathe, all we have to do is pay attention, respect certain rules and provide appropriate solutions.

HOW CAN THE QUALITY OF INDOOR AIR BE IMPROVED?

1. LIMIT POLLUTANT EMISSIONS AT THE SOURCE

Building products play a significant role in indoor air quality. It is therefore essential to take into account the information that appears in Environmental and Health Declaration Sheets (FDES) and on the labelling of volatile pollutant emissions.

2. EVACUATE POLLUTANTS BY RENEWING THE AIR

While opening the windows for 10 minutes a day enables you to get rid of some of the pollution in the air, ventilation is the essential complement to airing if it is not sufficient.

3. MANAGE AND CONTROL POLLUTION

Building products and equipment are not the only factors that influence indoor air quality. The occupants themselves can be the cause of air degradation, particularly through building maintenance.

4. CLEAN THE AIR

There exist so-called active building materials on the market that have the advantage of absorbing certain pollutants from indoor air. **This is the case of Placo® products with the Activ'Air® technology.**

Activ'Air® improves indoor air quality

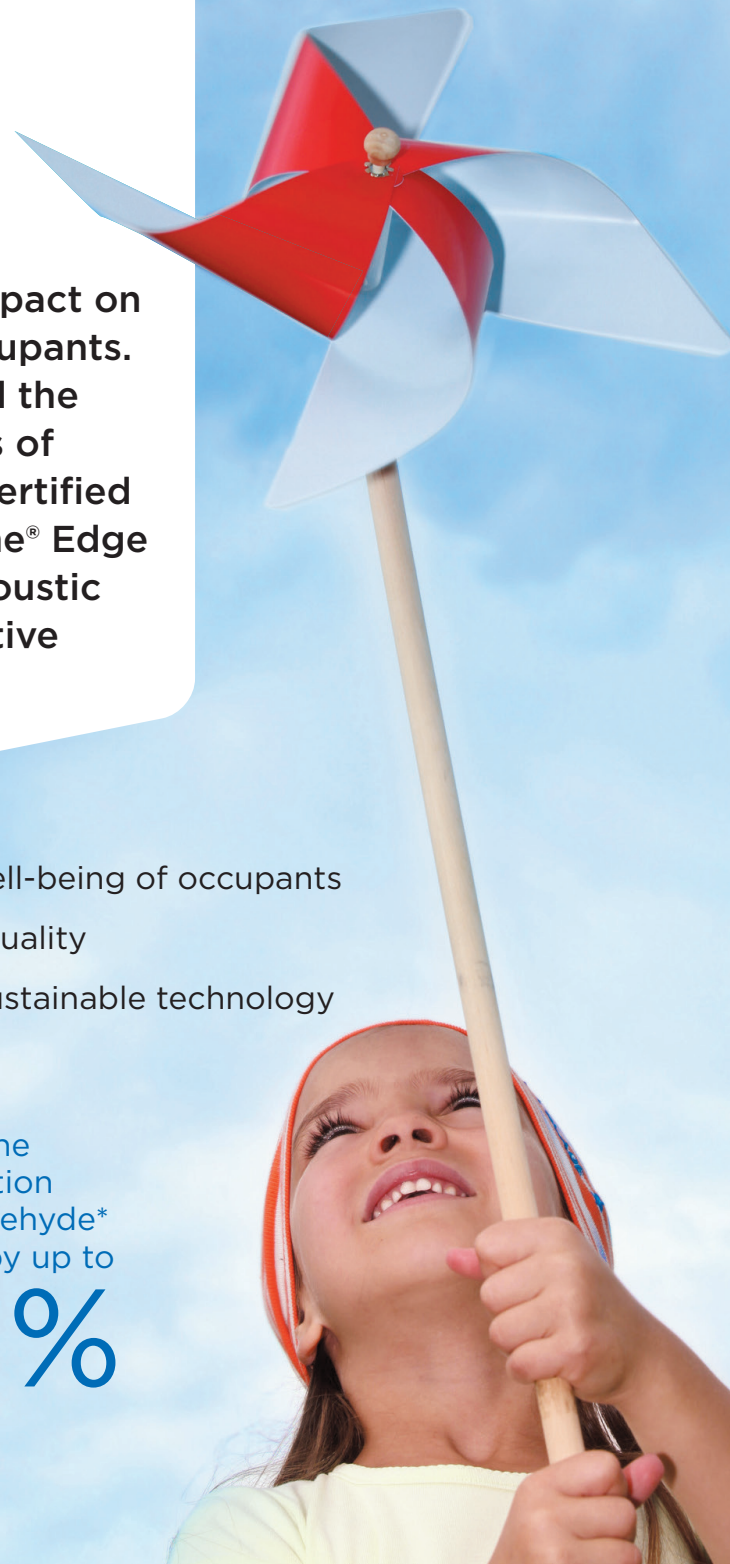
Indoor air quality has a direct impact on the health and well-being of occupants. This is why Placo® has developed the Activ'Air® technology, the results of which have been confirmed by certified and independent bodies. Rigitone® Edge and Rigitone® decorative and acoustic ceilings benefit from this innovative technology.

The Advantages

- Contributes to the well-being of occupants
- Improves indoor air quality
- High-performance, sustainable technology

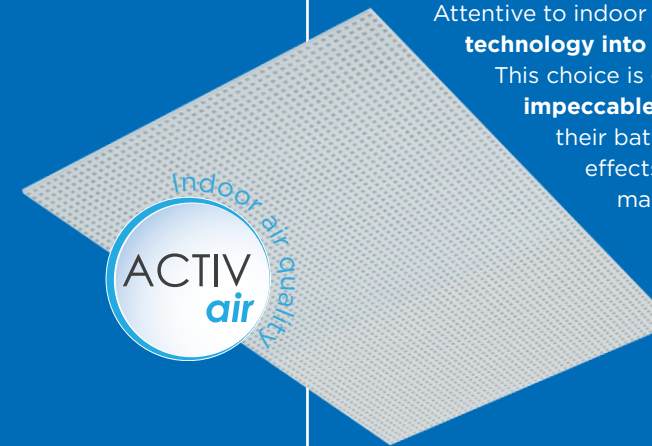
Active for at least
50 years

Reduces the
concentration
of formaldehyde*
in the air by up to
70%



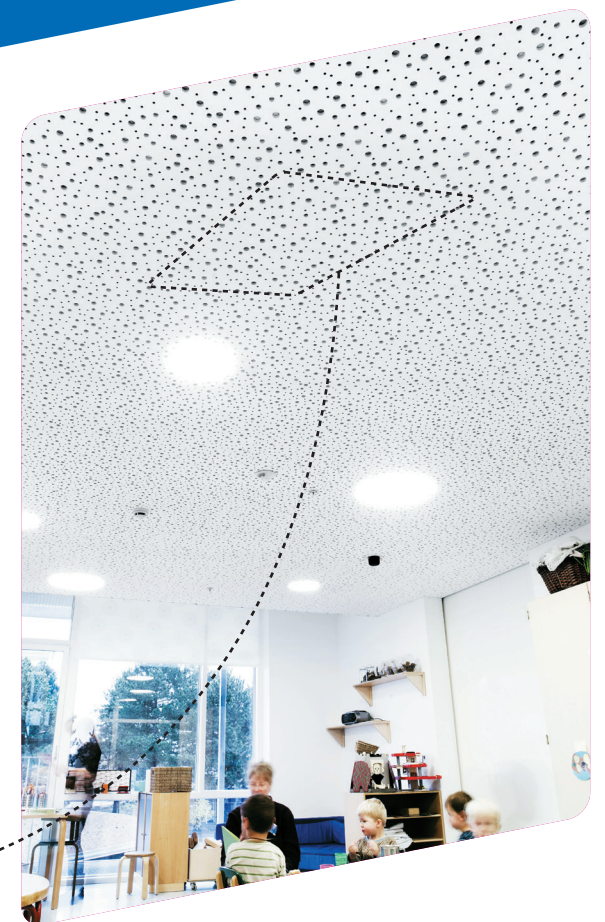
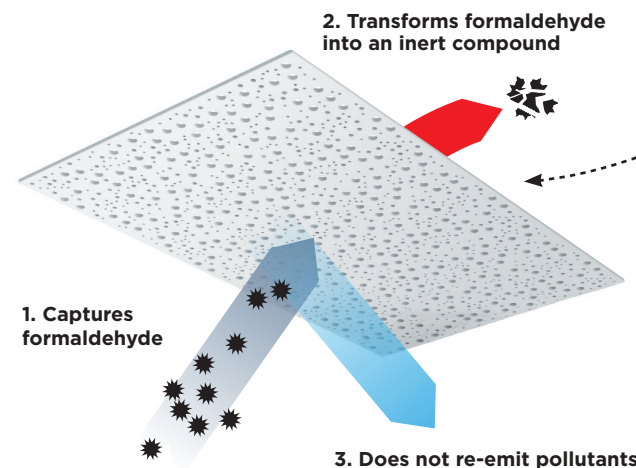
RIGITONE® CEILINGS BENEFIT FROM ACTIV'AIR® TECHNOLOGY

Attentive to indoor air quality, Placo® has integrated the Activ'Air® technology into the Rigitone® Edge and Rigitone® ceilings range. This choice is guided by the desire to offer occupants a space with **impeccable air quality** so that they can live, study and recharge their batteries in the best possible conditions. The beneficial effects of Rigitone® Activ'Air® ceilings on indoor air quality make them the **ideal solution for all public buildings**.



HOW DOES IT WORK?

Activ'Air® technology captures and **eliminates the formaldehyde*** in the air by chemically transforming the formaldehyde **into an inert compound**, thus eliminating any risk of re-emitting the pollutant. The effectiveness of the Activ'Air® technology has been confirmed by independent, certified laboratory tests. Simulations carried out by the Placo® Research Centre estimate that this process **remains active for at least 50 years**.



Recommended type of finish

In the case of the application of finishes, especially for Rigitone® Activ'Air® panels, it is necessary to use water-based **porous paints** to maintain the efficiency of the Activ'Air® process. These paints must be applied with a roller.

* With a room configuration (walls and ceiling) made of Placo® Activ'Air® products and an Activ'Air® surface area to room volume ratio of $\geq 1,3 \text{ m}^2/\text{m}^3$.
** The substance of this component is not classified according to Regulation (EC) No. 1272/2008, also known as the REACH Regulation.



PLACO® committed to sustainable building

As an industry leader, we recognise the role we have to play and the impact we can have on the environmental transformation of the building industry. We are making strong commitments to reduce the environmental footprint of our activities.

CO₂ THE BUILDING INDUSTRY IS THE LEADING CONTRIBUTOR TO CO₂ EMISSIONS IN FRANCE WITH:

- › 40% of energy consumption
- › 25% of CO₂ emissions
- › 40% of the use of natural resources
- › 40% of waste production in France



RAW MATERIALS

Producing just as well with fewer virgin raw materials

Placo®'s objectives for 2030:

- › -50%* reduction in water consumption
- › -30%* reduction in the use of virgin raw materials



Placo® plasterboards are made from natural gypsum, a healthy and infinitely recyclable material, recycled plaster, water and a recycled cardboard lining.

Today, our teams are working to:

- › Progressively replace virgin raw materials with recycled raw materials
- › Reduce the amount of water needed to manufacture products



Placo® has a long history of responsible quarry management. **Over the past 25 years:**

- **Almost 300 hectares have been redeveloped** to encourage the return of fauna and flora
- **More than 130,000 trees have been planted**



MANUFACTURE

Make in-depth process changes

Placo®'s objectives for 2030:

- › -33%* of direct CO₂ emissions on site and from electricity production on the grid
- Our products are designed and manufactured in France: as close as possible to our markets
- › Our factories are certified: ISO 14001 (environmental management) and ISO 50001 (energy management)
- › Our resources are managed sustainably



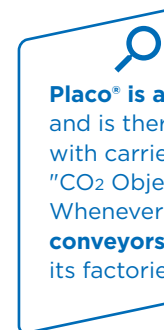
In 2021, the first Placo® ground-mounted solar park was inaugurated near the quarry in Pouillon (40).

TRANSPORT

Local sourcing

Placo®'s objectives for 2030:

- › -16%* of emissions upstream and downstream of production sites
- › Upstream, quarries are located within an average radius of 40 km from factories
- › Downstream, factories are as close as possible to construction sites: on average 218 km apart



Placo® is a signatory of the Fret21 charter and is therefore committed to working only with carriers who have been awarded the "CO₂ Objectives" label. Whenever possible, Placo® installs electric conveyors directly from its quarries to its factories.

USE

- › Placo® is partnering with players such as ISOVER to provide the market with complete systems to reduce emissions from buildings
- › Placo® is working on the modularity of its solutions to support the entire life of buildings and avoid major restructuring with a high environmental impact

RECYCLING AND WASTE RECOVERY

1st plaster recycling service in France

Placo®'s objectives for 2030:

- › x4** plaster recycling to reach 200,000 tonnes per year
- › +30%* recycled material in the manufacture of all plasterboards

In 2008, Placo® was the first manufacturer in the sector to launch a plaster waste recycling service, Placo® Recycling.

By the end of 2021, it had recycled over 65,000 tonnes.

In 2023, Placo® will once again innovate by offering a plasterboard that incorporates 50% recycled plaster, the Placo® Infini 13 board!

Placo®, the leading supplier of environmental and health declaration sheets in France.

FDES are verified by an independent third party and are available on the t base.

The objective? To measure the impact of our products on the environment. How? By analysing the life cycle of products, validated by a third party. Where can they be consulted? All our FDES are available on the inies.fr database. NEW: the FDES of our systems are also available!



LEED® AND BREEAM® CERTIFICATIONS

Placo® decorative ceilings also contribute to LEED® and BREEAM® certifications (including indoor air quality, acoustic performance and design innovation).



LEED®

Leadership in Energy and Environmental Design (LEED®) is a rating system to recognise best practices in building.

This programme was developed by the US Green Building Council in 1998 in the United States to promote development based on sustainable criteria and the high economic performance of buildings.

It includes in its scope: schools, health buildings, offices, shops, hotels, warehouses; etc.

LEED® is characterised by the impact study carried out during building, evaluating various prerequisites and credits divided into nine areas which, when added together, will provide the total score. The prerequisites and credits may differ depending on the type of building considered.

BREEAM®

BREEAM®

Building Research Establishment Environmental Assessment Method (BREEAM®) is a rating system for sustainable building projects

developed by the BRE (Building Research Establishment) in the early 1990s in the UK.

BREEAM® assesses a building's performance in 10 areas which, when added together, provide a total score.

The aim of BREEAM® certification is also to maintain the environmental performance of the building over time. Regular audits according to BREEAM® In-Use are therefore recommended during the first three years of use.



With our ceilings, the most beautiful sensations of well-being are created when you look up!



The quality of indoor air contributes to the comfort of living. This is why Placo® has developed Activ'Air®, an innovative technology that improves indoor air quality in the long term. Ceilings, partitions, linings... discover the entire range of Activ'Air® Placo® solutions.

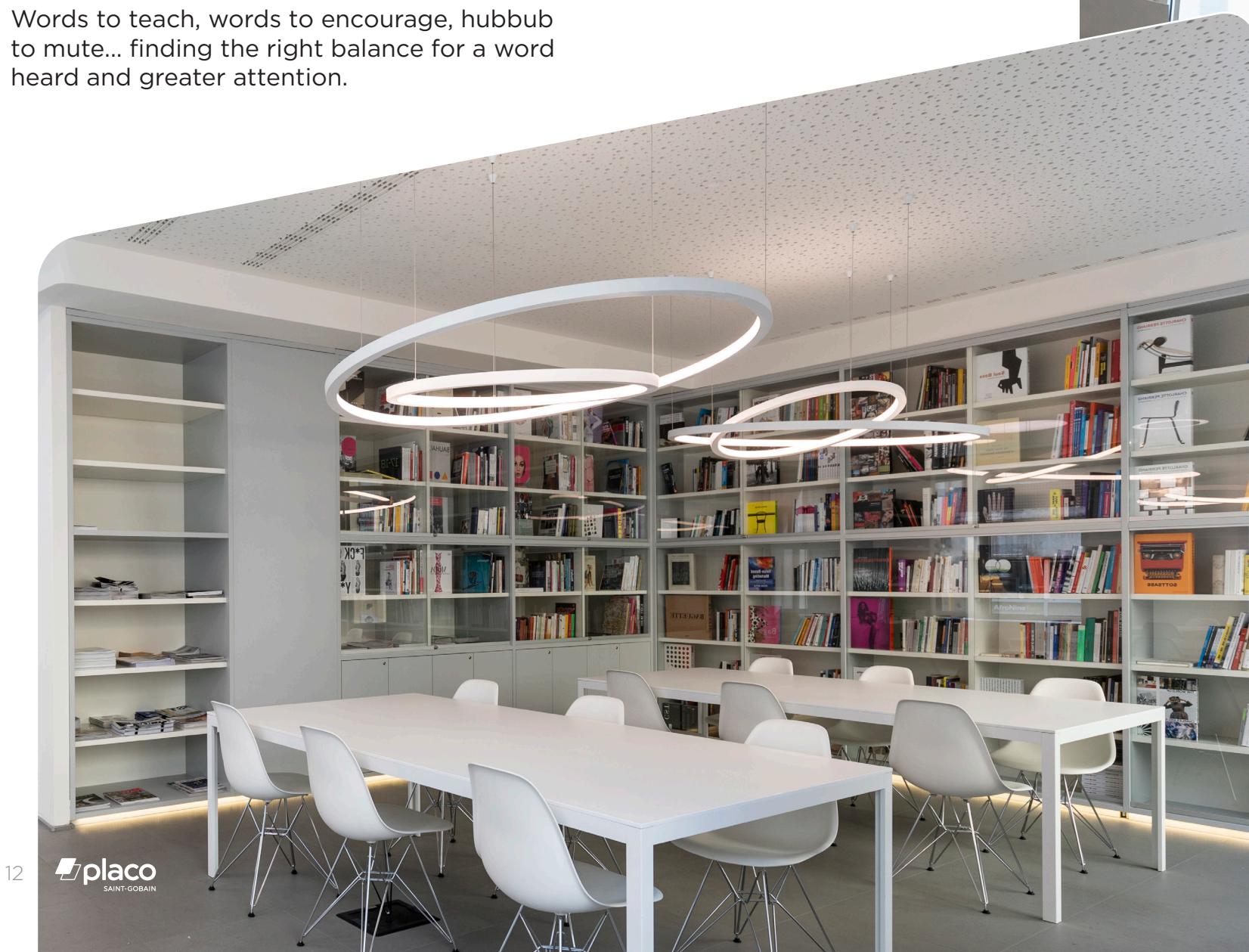
When an architect's path crosses that of a Rigitone® Edge & Rigitone® ceiling, the result is an elegant exercise in style, where volumes and trends meet to create exceptional spaces.

An inspiring range of products, inspired projects

EDUCATION

Words to teach, words to encourage, hubbub to mute... finding the right balance for a word heard and greater attention.

8-15-20 Super pattern
Istituto moda e design Milano - Lorenzo Bartoli (Saint-Gobain Italy)





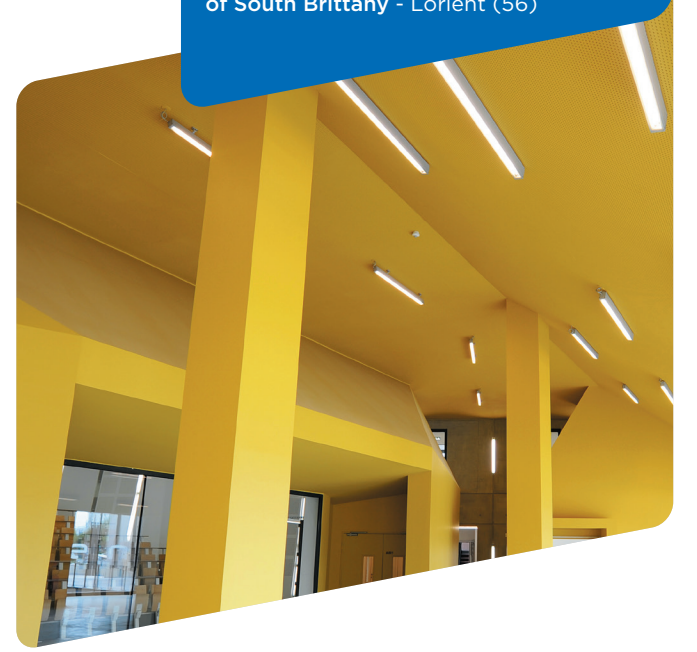
8-15-20 Super pattern
Fashion and design institute of Milano -
Lorenzo Bartoli (Saint-Gobain Italy)



8-18 pattern
National School of Engineers
of South Brittany - Lorient (56)



12/25 Q pattern
University - Aix-en-Provence (13)



HEALTH

Reduce ambient noise, facilitate the work of medical staff and create convivial spaces.

8-15-20 Super pattern
Specialized Home Diapason -
Grandchamps-des-Fontaines (44)



8-15-20 Super pattern
Adisco MIROGLI/O + LUPICA
ARCHITETTI TIELLE IMPIANTI S.R.L.

8-15-20 Super pattern
First aid centre
Regina Margherita Children's Hospital -
Turin (Italy)



OFFICES

Working in a quiet and pleasant environment is more fulfilling.

8-15-20 Super pattern
A. Martaud Company - Jarnac (17)
© Raphaël Demaret



INDIVIDUAL HOUSE

Entertaining friends, relaxing, sharing family time...
All this is easy in an atmosphere that promotes well-being.



8-15-20 Super pattern
Villa Guyvonney - Royan (17)
© Raphaël Demaret



8-15-20 Super pattern
Loft - Saint-Jean-de-Bournay (38)

CULTURE & LEISURE

Reading, listening to music, entertainment, etc.
By benefiting from efficient,
appropriate acoustics.

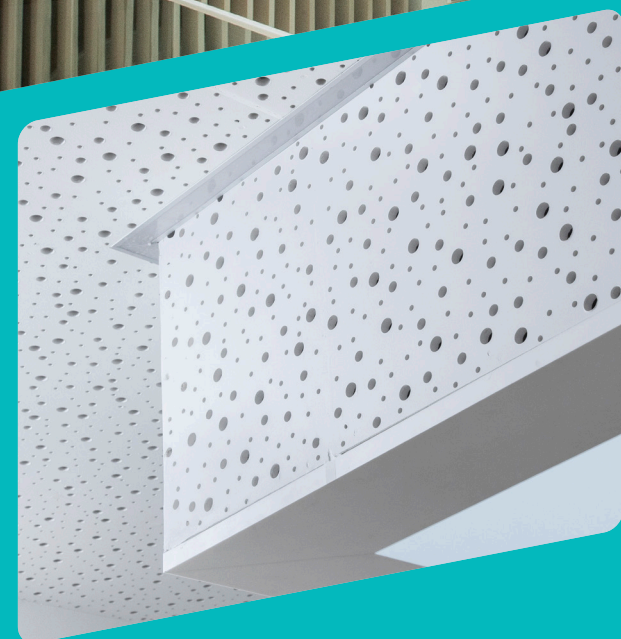


2-20/66 pattern
Cultural Center Le Forum - Mirebeau (21)
© Raphaël Demaret



PUBLIC BUILDINGS

Bringing design and modernity to the welcome of visitors.

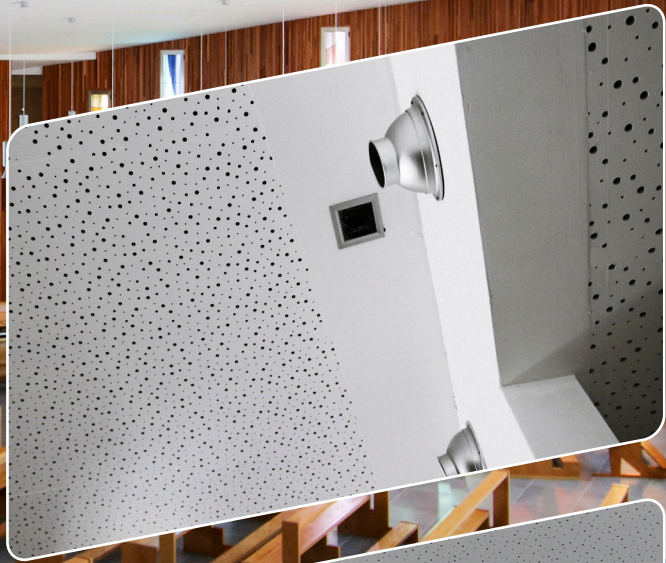


8-15-20 Super pattern
City Hall - La Rochelle (17)
© Raphaël Demaret



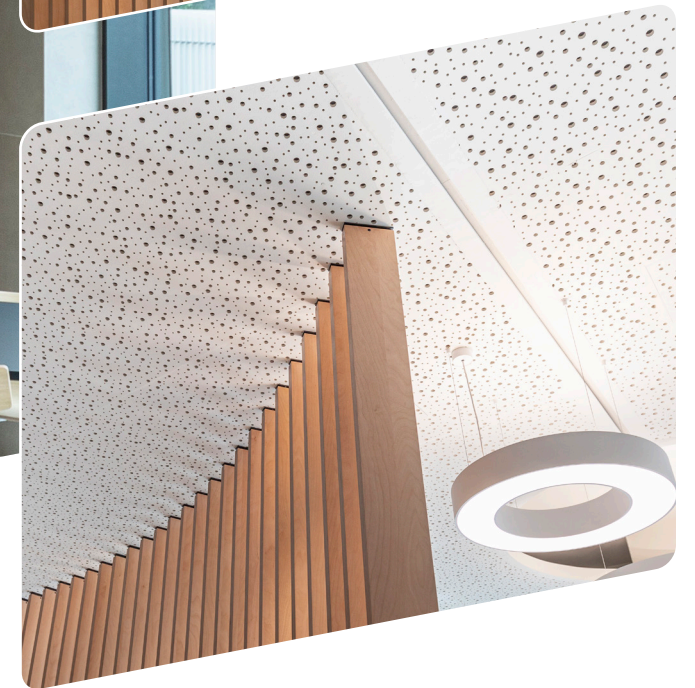
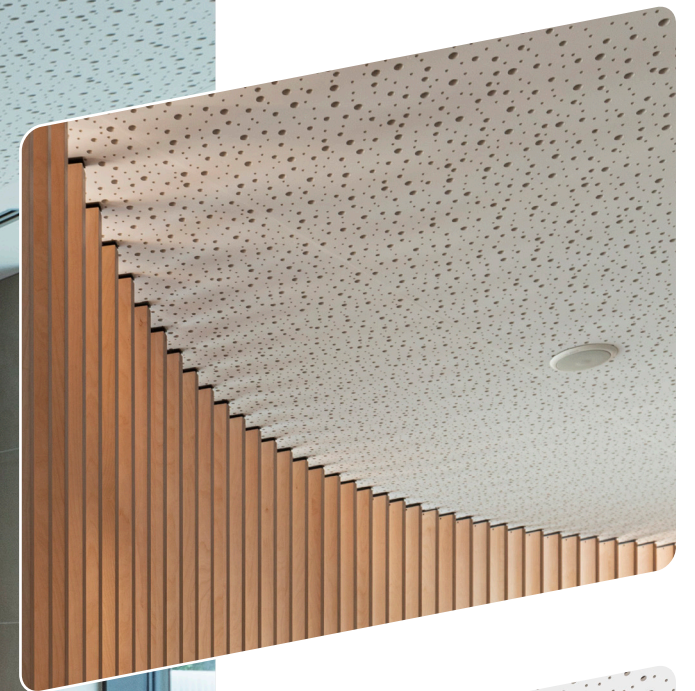
8-15-20 Super pattern
La Pouponnière - Caen (14)
© Raphaël Demaret





8-15-20 Super pattern
Church - Porto Torres (Italy)





8-15-20 Super pattern
New Fanuc headquarters - Lainate (Italy)



8-15-20 Super and 12-20/66
patterns
Institute of Music - Pécs (Hungary)

Rigitone[®] Edge & Rigitone[®]

35

Random perforations

41

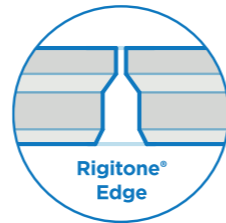
Alternated perforations

45

Regular perforations

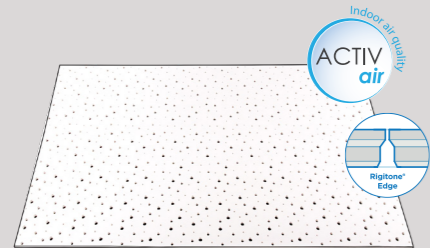
Rigitone® Edge

with its chamfered edge, makes it easy to install panels and ensures comfort and design!



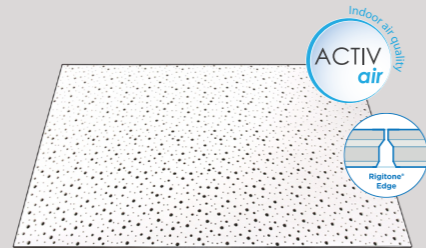
Six patterns available
Three styles of perforations

Random perforations



Rigitone® Edge Activ'Air® 8-15-20 P.35

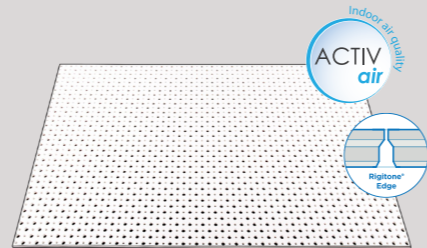
- Edges: chamfered, already sanded and primed
- Perforations: random round
 - Perforation rate: 6%
 - Dimensions: 1,199 x 2,000 x 12.5 mm
 - Acoustic absorption α_w : 0.40 (L)



Rigitone® Edge Activ'Air® 8-15-20 Super P.37

- Edges: chamfered, already sanded and primed
- Perforations: random round
 - Perforation rate: 10%
 - Dimensions: 1,204 x 1,961 x 12.5 mm
 - Acoustic absorption α_w : 0.50 (L)

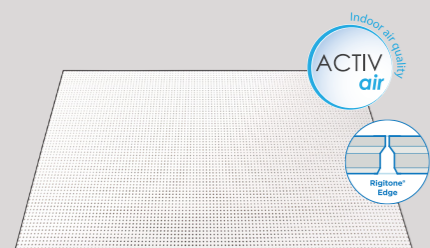
Alternated perforations



Rigitone® Edge Activ'Air® 12-20/66 P.41

- Edges: chamfered, already sanded and primed
- Perforations: alternated round
 - Perforation rate: 19.6%
 - Dimensions: 1,188 x 1,980 x 12.5 mm
 - Acoustic absorption α_w : 0.75 (L)

Regular perforations



Rigitone® Edge Activ'Air® 8/18 P.43

- Edges: chamfered, already sanded and primed
- Perforations: regular round
 - Perforation rate: 15.5%
 - Dimensions: 1,188 x 1,998 x 12.5 mm
 - Acoustic absorption α_w : 0.75 (L)



Rigitone® Edge Activ'Air® 8/18 Q P.45

- Edges: chamfered, already sanded and primed
- Perforations: regular square
 - Perforation rate: 19.8%
 - Dimensions: 1,188 x 1,998 x 12.5 mm
 - Acoustic absorption α_w : 0.80



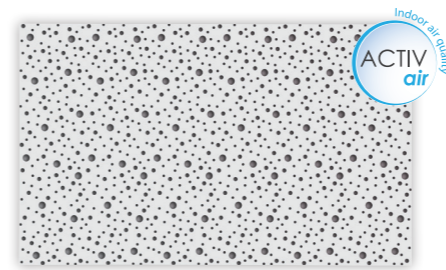
Rigitone® Edge Activ'Air® 12/25 Q P.47

- Edges: chamfered, already sanded and primed
- Perforations: regular square
 - Perforation rate: 23%
 - Dimensions: 1,200 x 2,000 x 12.5 mm
 - Acoustic absorption α_w : 0.90

With its straight edge, **Rigitone®** guarantees an **elegant design** for a wide range of spaces.

Five patterns available
Two styles of perforations

Random perforations



Rigitone® Activ'Air® 12-20-35 P.39

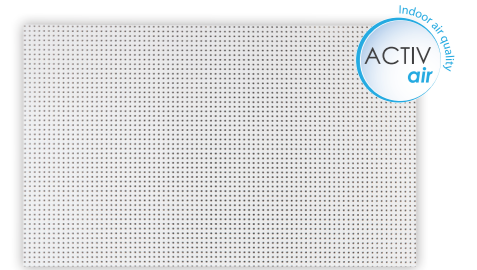
- Edges: straight, already sanded and primed
- Perforations: random round
 - Perforation rate: 11%
 - Dimensions: 1,200 x 2,000 x 12.5 mm
 - Acoustic absorption α_w : 0.50 (L)

Regular perforations



Rigitone® Activ'Air® 6/18 P.49

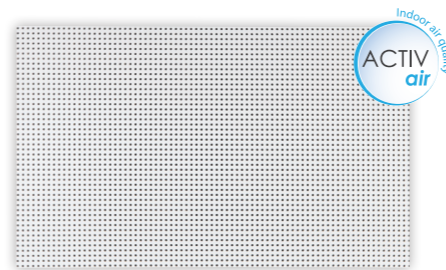
- Edges: straight, already sanded and primed
- Perforations: regular round
 - Perforation rate: 8.7%
 - Dimensions: 1,188 x 1,998 x 12.5 mm
 - Acoustic absorption α_w : 0.50 (LM)



Rigitone® Activ'Air® 10/23 P.51

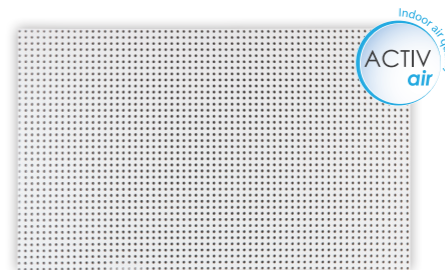
- Edges: straight, already sanded and primed
- Perforations: regular round
 - Perforation rate: 14.8%
 - Dimensions: 1,196 x 2,001 x 12.5 mm
 - Acoustic absorption α_w : 0.65 (L)

Regular perforations



Rigitone® Activ'Air® 12/25 P.53

- Edges: straight, already sanded and primed
- Perforations: regular round
 - Perforation rate: 18.1%
 - Dimensions: 1,200 x 2,000 x 12.5 mm
 - Acoustic absorption α_w : 0.70 (LM)



Rigitone® Activ'Air® 15/30 P.55

- Edges: straight, already sanded and primed
- Perforations: regular round
 - Perforation rate: 19.6%
 - Dimensions: 1,200 x 1,980 x 12.5 mm
 - Acoustic absorption α_w : 0.70 (LM)

Accessories for Rigitone® Edge and Rigitone®



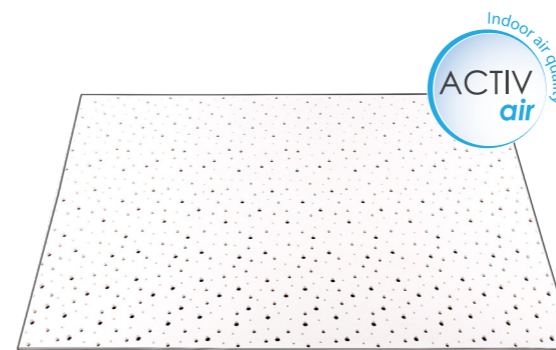
Rigitone® Access Inspection hatches P.57

- Inspection hatches
- Eleven patterns available
 - Four formats available: 300 x 300, 400 x 400, 500 x 500, 600 x 600

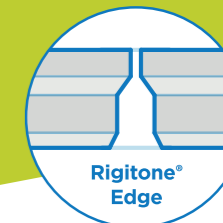
Rigitone® Edge and Rigitone® panels have A+ Indoor Air Quality classification (Eurofins report according to the ISO 16 000 standards). They also benefit from the NF EN 14190 standard.



8-15-20 pattern






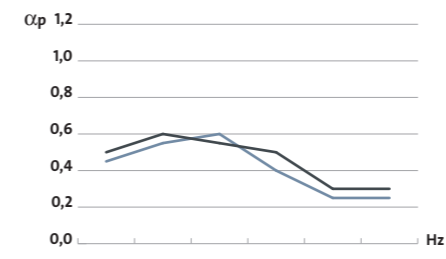
Chamfered edges



Rigitone® Edge Activ'Air® 8-15-20

PERFORMANCE

-  **Reaction to fire**
A2-s1, d0.
-  **Behaviour in wet environments**
Rigitone® Edge Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
-  **Acoustic absorption**
(mineral wool without vapour barrier)



200 mm plenum / 60 mm wool	0.50	0.60	0.55	0.50	0.30	0.30	0.40 (L)
200 mm plenum / without wool	0.45	0.55	0.60	0.40	0.25	0.25	0.35 (LM)

CSTB AC13-26048154 - E2 - CSTB AC13-26048154 - E1

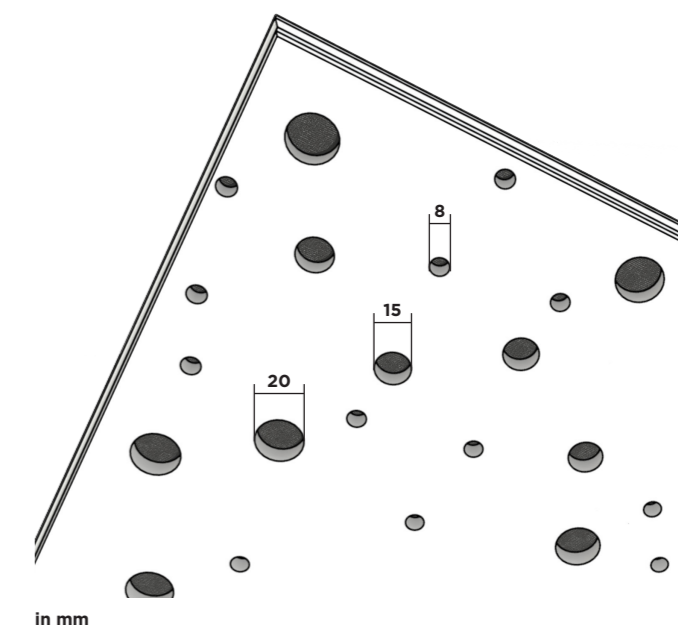
CHARACTERISTICS

Material	Gypsum-based (20% recycled gypsum in the panel)
Acoustic tissue	Black or white* or without tissue*
Type of edge	Chamfered - already sanded and primed
Surface	To be painted
Format (mm)	1,199 x 2,000
Thickness (mm)	12.5
Approx. weight (kg/m²)	10
Perforation (mm)	ø = 8, 15 & 20
Perforation rate	6%

* Available to order

ALL ADVANTAGES

- Very attractive round, random perforations
- Easy to install thanks to its chamfered edge
- Good acoustic absorption
- Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

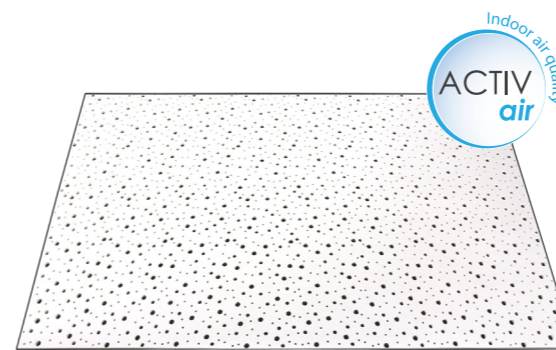
- Details on page 60.

STANDARD DESCRIPTION

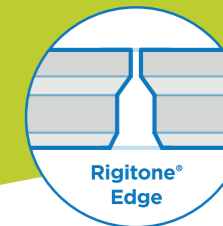
- Details on page 73.



8-15-20 Super pattern



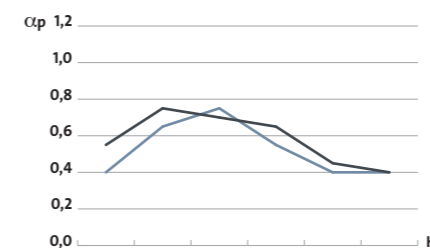
Chamfered edges



Rigitone® Edge Activ'Air® 8-15-20 Super

PERFORMANCE

- Reaction to fire**
A2-s1, d0.
- Behaviour in wet environments**
Rigitone® Edge Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
- Acoustic behaviour**
Acoustic absorption
(mineral wool without vapour barrier)



	125	250	500	1000	2000	4000	α_w
200 mm plenum / 60 mm wool	0.55	0.75	0.70	0.65	0.45	0.40	0.50 (L)
200 mm plenum / without wool	0.40	0.65	0.75	0.55	0.40	0.40	0.50 (LM)

CSTB AC10-26029022 - E1 - CSTB AC10-26029022 - E2

Lateral attenuation

- Dn, c, w (C;Ctr) = 44 (-2;-6) dB for a plenum of 710 mm with glass wool of 85 mm.
- Dn, c, w (C;Ctr) = 23 (0;-1) dB for a plenum of 710 mm with no glass wool.

CSTB AC21-03643

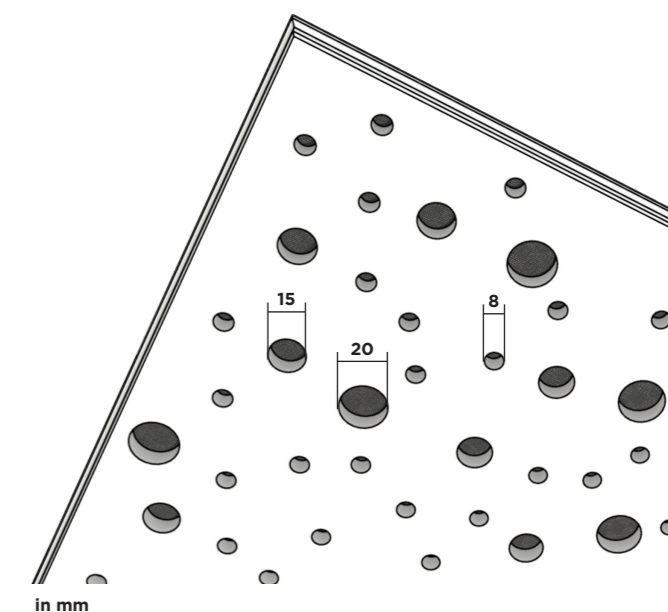
CHARACTERISTICS

Material	Gypsum-based (20% recycled gypsum in the panel)
Acoustic tissue	Black or white* or without tissue*
Type of edge	Chamfered - already sanded and primed
Surface	To be painted
Format (mm)	1,204 x 1,961
Thickness (mm)	12.5
Approx. weight (kg/m²)	10
Perforation (mm)	∅ = 8, 15 & 20
Perforation rate	10%

* Available to order

ALL ADVANTAGES

- Very attractive round, regular perforations
- Easy to install thanks to its chamfered edge
- Good acoustic absorption
- Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

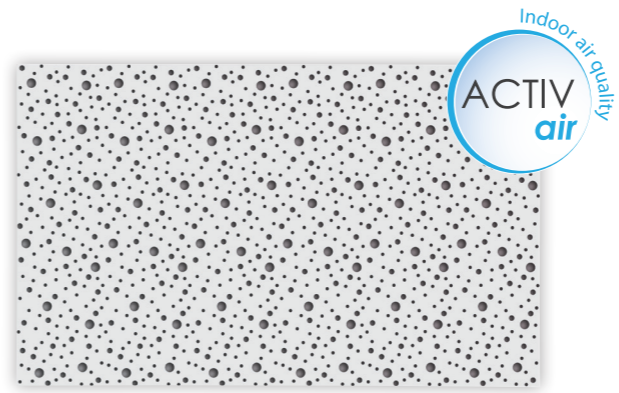
- Details on page 60.

STANDARD DESCRIPTION

- Details on page 73.






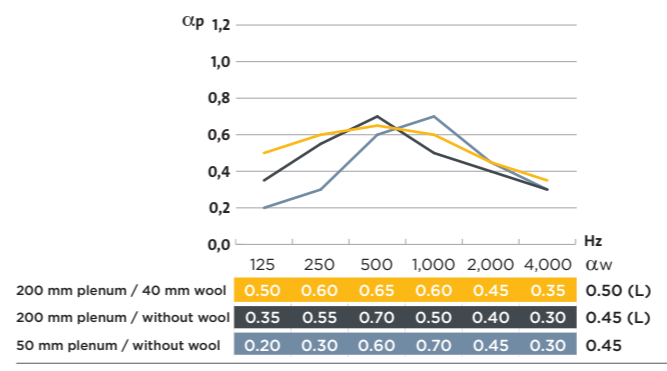
12-20-35 pattern



Rigitone® Activ'Air® 12-20-35

PERFORMANCE

-  **Reaction to fire**
A2-s1, d0.
-  **Behaviour in wet environments**
Rigitone® Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
-  **Acoustic absorption**
(mineral wool without vapour barrier)

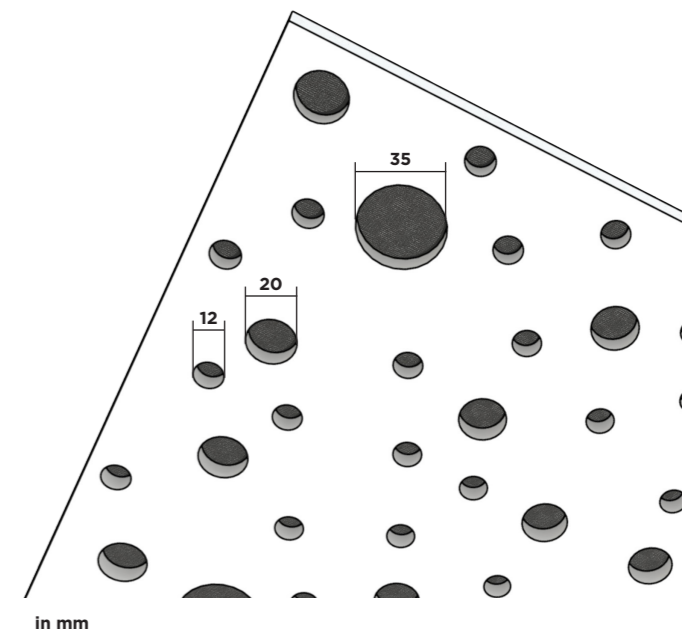


CHARACTERISTICS

Material	Gypsum-based
Acoustic tissue	Black or white*
Type of edge	Straight - already sanded and primed
Surface	To be painted
Format (mm)	1,200 x 2,000
Thickness (mm)	12.5
Approx. weight (kg/m ²)	10
Perforation (mm)	∅ = 12, 20 & 35
Perforation rate	11%

* Available to order

- ### ALL ADVANTAGES
- Very attractive round, random perforations
 - Good acoustic absorption
 - Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

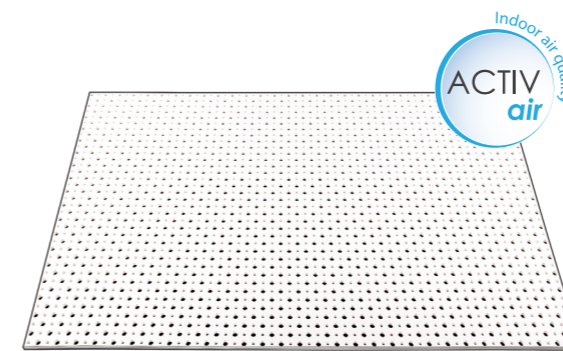
- Details on page 60.

STANDARD DESCRIPTION

- Details on page 73.



12-20/66 pattern






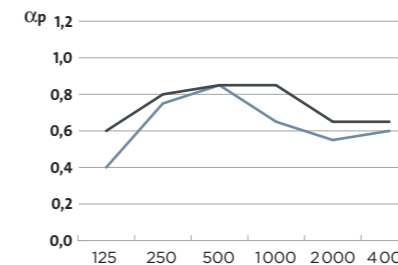
Chamfered edges



Rigitone® Edge Activ'Air® 12-20/66

PERFORMANCE

-  **Reaction to fire**
A2-s1, d0.
-  **Behaviour in wet environments**
Rigitone® Edge Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
-  **Acoustic absorption**
(mineral wool without vapour barrier)



200 mm plenum / 60 mm wool	0.60	0.80	0.85	0.85	0.65	0.65	0.75 (L)
200 mm plenum / without wool	0.40	0.75	0.85	0.65	0.55	0.60	0.65 (L)

CSTB AC11-26031077/1

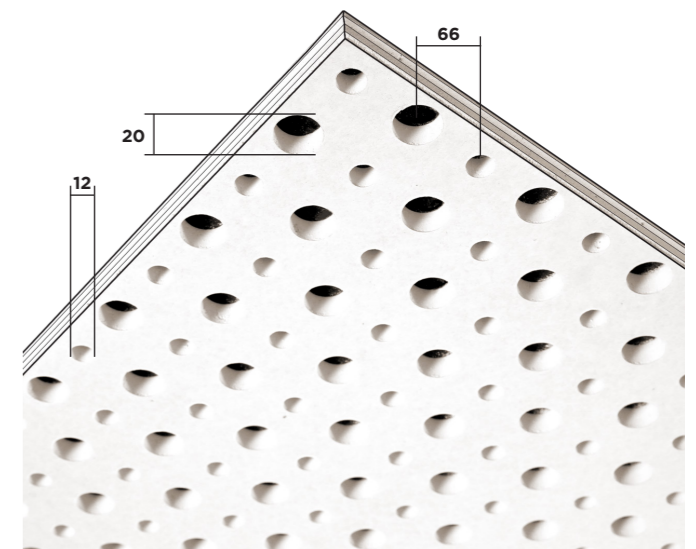
CHARACTERISTICS

Material	Gypsum-based (20% recycled gypsum in the panel)
Acoustic tissue	Black or white* or without tissue*
Type of edge	Chamfered - already sanded and primed
Surface	To be painted
Format (mm)	1,188 x 1,980
Thickness (mm)	12.5
Approx. weight (kg/m²)	9.5
Perforation (mm)	∅ = 12 & 20 - centre distance = 66
Perforation rate	19.6%

* Available to order

ALL ADVANTAGES

- Very attractive round alternated perforations.
- Easy to install thanks to its chamfered edge
- Excellent acoustic absorption
- Exclusive Activ'Air® technology for optimal IAQ



in mm

INSTALLATION

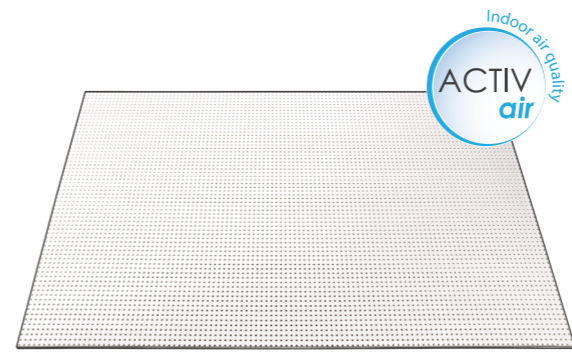
- Details on page 60.

STANDARD DESCRIPTION

- Details on page 72.



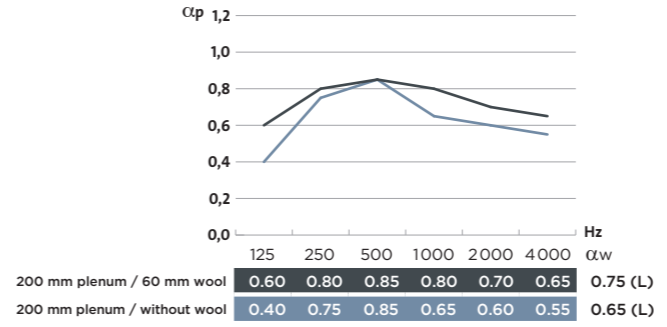
8/18 pattern



Rigitone® Edge Activ'Air® 8/18

PERFORMANCE

- Reaction to fire**
A2-s1, d0.
- Behaviour in wet environments**
Rigitone® Edge Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
- Acoustic behaviour**
Acoustic absorption
(mineral wool without vapour barrier)



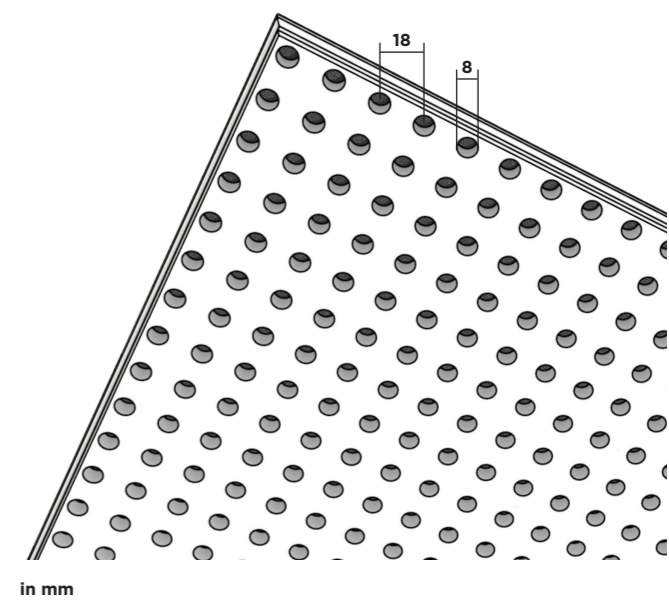
CSTB AC11-26031077/2 - E1 - CSTB AC11-26031077/2 - E2
 Lateral attenuation
 • Dn, c, w (C;Ctr) = 40 (-2;-7) dB for a plenum of 710 mm with glass wool of 85 mm.
 • Dn, c, w (C;Ctr) = 20 (0;-1) dB for a plenum of 710 mm with no glass wool.

CHARACTERISTICS

Material	Gypsum-based (20% recycled gypsum in the panel)
Acoustic tissue	Black or white* or without tissue*
Type of edge	Chamfered - already sanded and primed
Surface	To be painted
Format (mm)	1,188 x 1,998
Thickness (mm)	12.5
Approx. weight (kg/m²)	10
Perforation (mm)	∅ = 8 - centre distance = 18
Perforation rate	15.5%

* Available to order

- ### ALL ADVANTAGES
- Very attractive round, random perforations
 - Easy to install thanks to its chamfered edge
 - Good acoustic absorption
 - Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

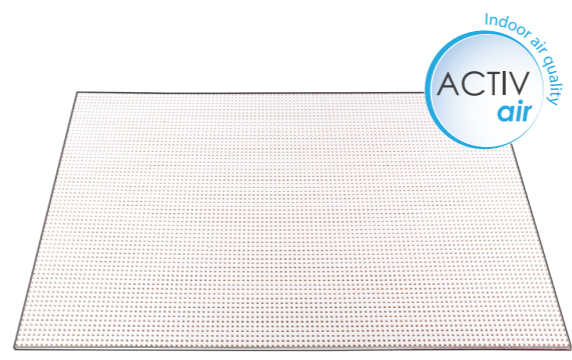
- Details on page 60.

STANDARD DESCRIPTION

- Details on page 72.



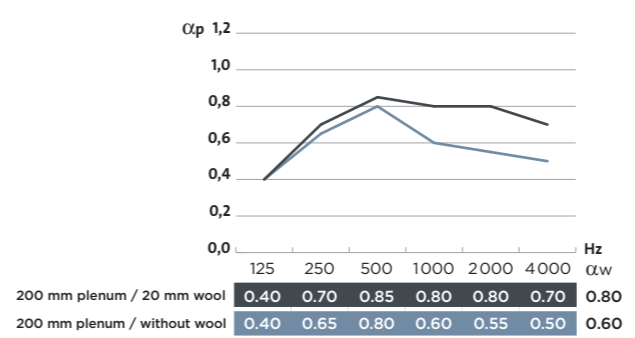
8/18 Q pattern



Rigitone® Edge Activ'Air® 8/18 Q

PERFORMANCE

- Reaction to fire**
A2-s1, d0.
- Behaviour in wet environments**
Rigitone® Edge Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
- Acoustic behaviour**
(mineral wool without vapour barrier)

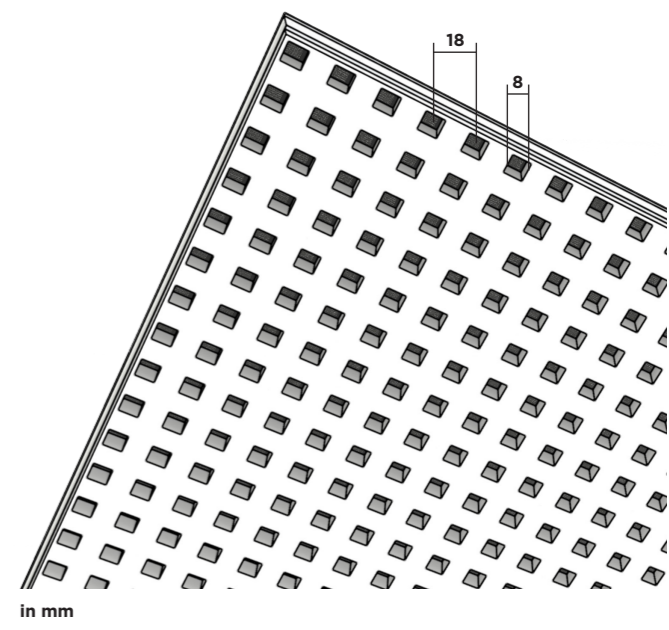


CHARACTERISTICS

Material	Gypsum-based (20% recycled gypsum in the panel)
Acoustic tissue	Black or white* or without tissue*
Type of edge	Chamfered - already sanded and primed
Surface	To be painted
Format (mm)	1,188 x 1,998
Thickness (mm)	12.5
Approx. weight (kg/m²)	9.5
Perforation (mm)	8 x 8 mm - centre distance = 18
Perforation rate	19.8%

* Available to order

- ## ALL ADVANTAGES
- Square perforations arranged regularly across the whole surface
 - Easy to install thanks to its chamfered edge
 - Excellent acoustic absorption
 - Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

- Details on page 60.

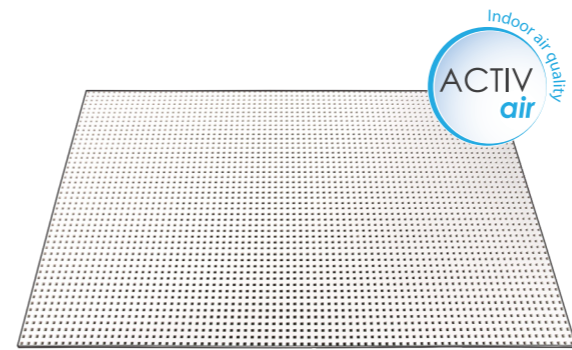
STANDARD DESCRIPTION

- Details on page 72.

Regular perforations



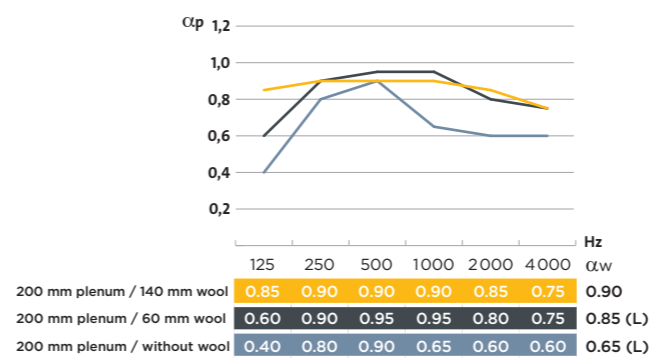
12/25 Q pattern



Rigitone® Edge Activ'Air® 12/25 Q

PERFORMANCE

- Reaction to fire**
A2-s1, d0.
- Behaviour in wet environments**
Rigitone® Edge Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
- Acoustic behaviour**
(mineral wool without vapour barrier)
Absorption class A ($\alpha_w = 0.9$) with a plenum of 200 mm and 140 mm mineral wool.



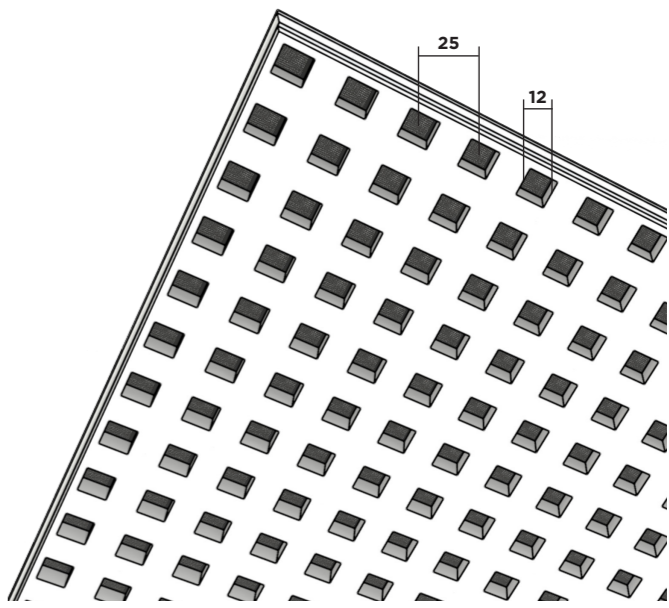
CSTB AC15-26054656 - CSTB AC11-26031077/3 - E1 - CSTB AC11-26031077/3 - E2

CHARACTERISTICS

Material	Gypsum-based (20% recycled gypsum in the panel)
Acoustic tissue	Black or white* or without tissue*
Type of edge	Chamfered - already sanded and primed
Surface	To be painted
Format (mm)	1,200 x 2,000
Thickness (mm)	12.5
Approx. weight (kg/m²)	9.5
Perforation (mm)	12 x 12 mm - centre distance = 25
Perforation rate	23%

* Available to order

- ## ALL ADVANTAGES
- Acoustic absorption class A ($w = 0.9$)*
 - Easy to install thanks to its chamfered edge
 - Square perforations arranged regularly across the whole surface
 - Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

- Details on page 60.

STANDARD DESCRIPTION

- Details on page 72.

Regular perforations






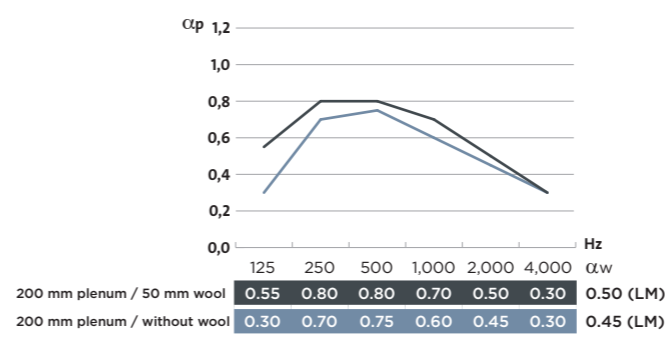
6/18 pattern



Rigitone® Activ'Air® 6/18

PERFORMANCE

-  **Reaction to fire**
A2-s1, d0.
-  **Behaviour in wet environments**
Rigitone® Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
-  **Acoustic absorption**
(mineral wool without vapour barrier)



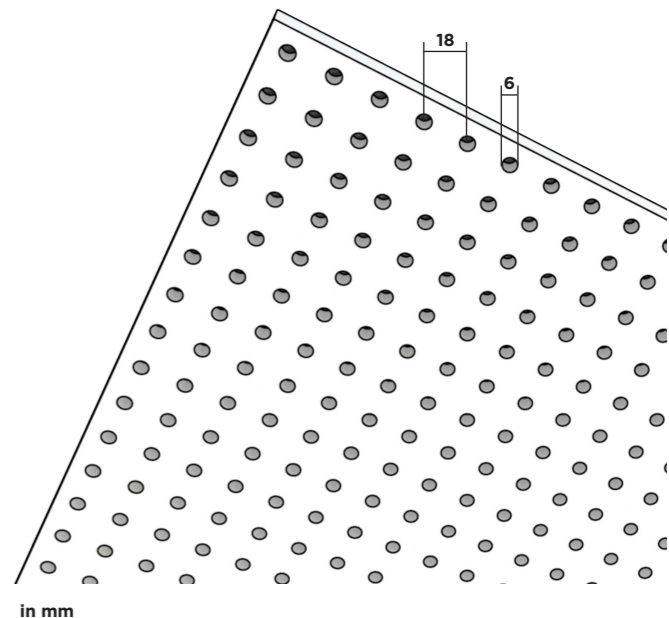
CHARACTERISTICS

Material	Gypsum-based
Acoustic tissue	Black or white*
Type of edge	Straight - already sanded and primed
Surface	To be painted
Format (mm)	1,188 x 1,998
Thickness (mm)	12.5
Approx. weight (kg/m²)	10
Perforation (mm)	∅ = 6 mm - centre distance = 18
Perforation rate	8.7%

* Available to order

ALL ADVANTAGES

- Very attractive round, regular perforations
- Good acoustic absorption
- Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

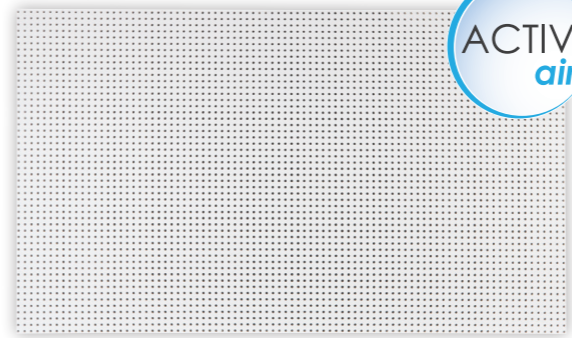
- Details on page 60.

STANDARD DESCRIPTION

- Details on page 73.






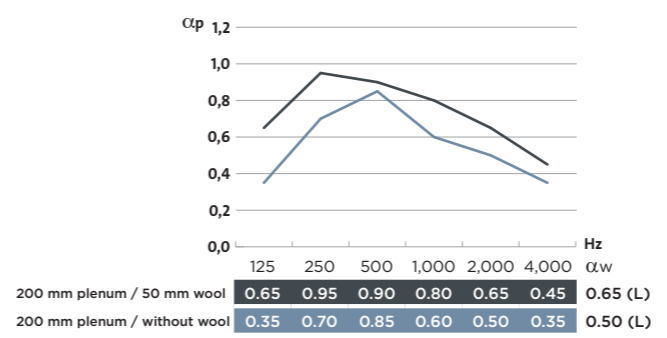
10/23 pattern



Rigitone® Activ'Air® 10/23

PERFORMANCE

-  **Reaction to fire**
A2-s1, d0.
-  **Behaviour in wet environments**
Rigitone® Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
-  **Acoustic absorption**
(mineral wool without vapour barrier)



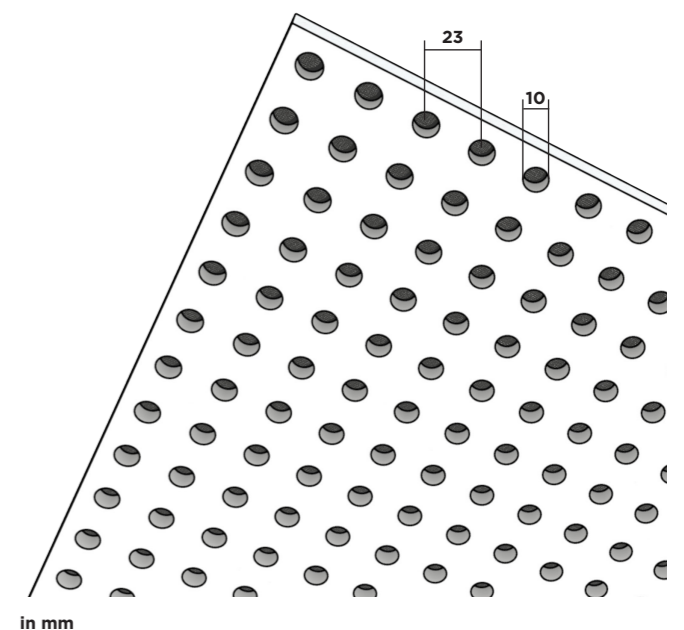
CHARACTERISTICS

Material	Gypsum-based
Acoustic tissue	Black or white*
Type of edge	Straight - already sanded and primed
Surface	To be painted
Format (mm)	1,196 x 2,001
Thickness (mm)	12.5
Approx. weight (kg/m²)	10
Perforation (mm)	$\varnothing = 10$ mm - centre distance = 23
Perforation rate	14.8%

* Available to order

ALL ADVANTAGES

- Very attractive round, regular perforations
- Very good acoustic absorption
- Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

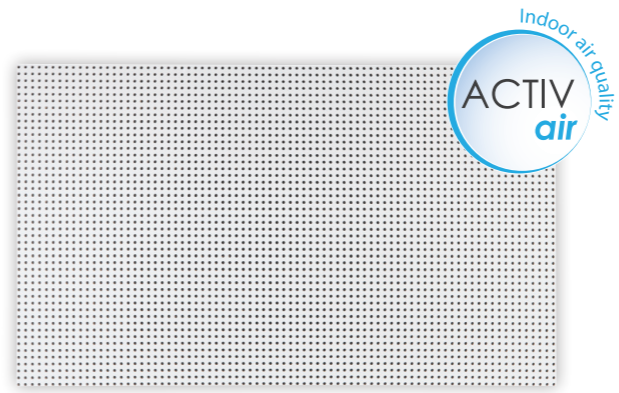
- Details on page 60.

STANDARD DESCRIPTION

- Details on page 73.



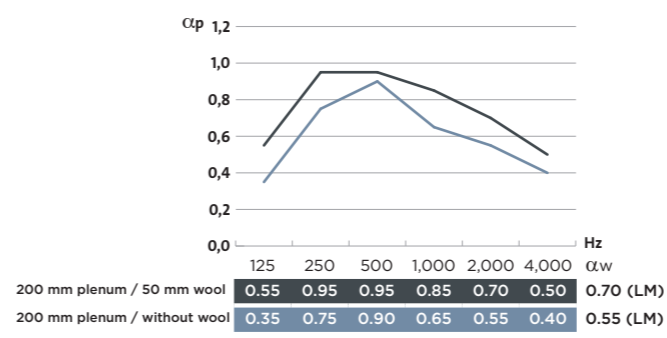
12/25 pattern



Rigitone® Activ'Air® 12/25

PERFORMANCE

- Reaction to fire**
A2-s1, d0.
- Behaviour in wet environments**
Rigitone® Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
- Acoustic absorption**
(mineral wool without vapour barrier)



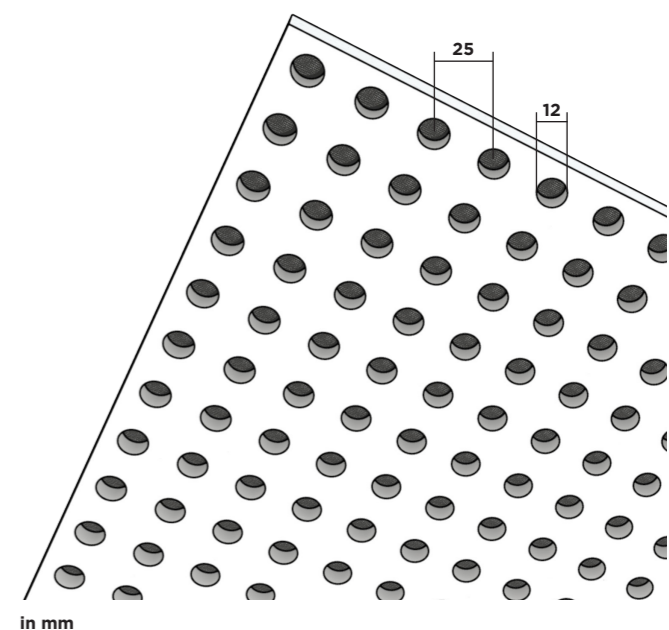
CHARACTERISTICS

Material	Gypsum-based
Acoustic tissue	Black or white*
Type of edge	Straight - already sanded and primed
Surface	To be painted
Format (mm)	1,200 x 2,000
Thickness (mm)	12.5
Approx. weight (kg/m ²)	9.5
Perforation (mm)	∅ = 12 mm - centre distance = 25
Perforation rate	18.1%

* Available to order

ALL ADVANTAGES

- Very attractive round, regular perforations
- Very good acoustic absorption
- Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

- Details on page 60.

STANDARD DESCRIPTION

- Details on page 73.






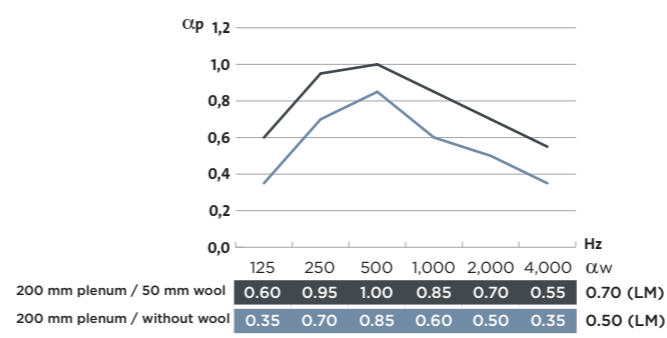
15/30 pattern



Rigitone® Activ'Air® 15/30

PERFORMANCE

-  **Reaction to fire**
A2-s1, d0.
-  **Behaviour in wet environments**
Rigitone® Activ'Air® panels can be used in premises with low and medium humidity (Class A and Class B)
-  **Acoustic absorption**
(mineral wool without vapour barrier)



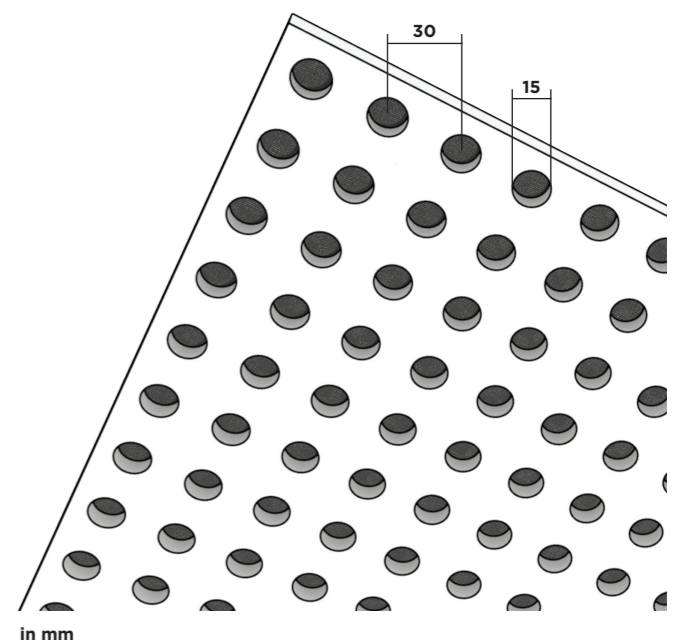
CHARACTERISTICS

Material	Gypsum-based
Acoustic tissue	Black or white*
Type of edge	Straight - already sanded and primed
Surface	To be painted
Format (mm)	1,200 x 1,980
Thickness (mm)	12.5
Approx. weight (kg/m ²)	9.5
Perforation (mm)	ø = 15 mm - centre distance = 30
Perforation rate	19.6%

* Available to order

ALL ADVANTAGES

- Very attractive round, regular perforations
- Very good acoustic absorption
- Exclusive Activ'Air® technology for optimal IAQ



INSTALLATION

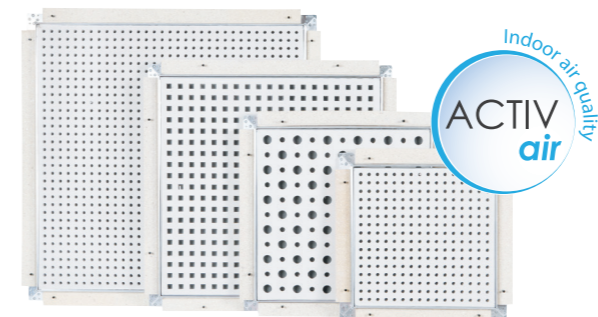
- Details on page 60.

STANDARD DESCRIPTION

- Details on page 73.



Rigitone® Access range



Rigitone® Access inspection hatches

Rigitone® Access is an attractive inspection hatch that **fits in perfectly with** perforated **Rigitone® Activ'Air®** panels.

It is available in the eleven patterns of the range and in various formats: 300 x 300 mm, 400 x 400 mm, 500 x 500 mm and 600 x 600 mm.

Non-standard formats above 600 x 600 mm can be studied.

The inspection hatch provides convenient access to the technical installations in the ceiling.

The Rigitone® Access system consists of:

- **An inspection hatch** with the same pattern as the Rigitone® Edge and Rigitone® panels, allowing a person to access the plenum (for random patterns, only the frame is supplied: the cut-out part of the panel is to be integrated directly on site);
- **A metal support frame.**

The inspection hatch is factory-fitted with a perforated panel **identical to the ceiling pattern*** to achieve a uniform appearance.

Each inspection hatch is individually packaged in high protection packaging with assembly instructions.

ALL ADVANTAGES

- Easy to install
- Hatch completely hidden in the panel
- Attractive and economical solution

PERFORMANCE



Reaction to fire
A2-s1, d0.



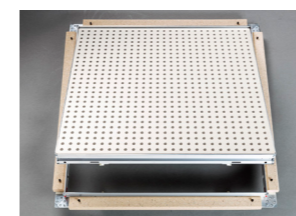
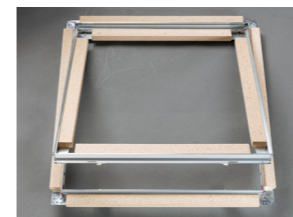
Behaviour in wet environments
Rigitone® Access inspection hatches can be used in premises with low and medium humidity (Class A and Class B).

INSTALLATION

- Details on page 73.

THE RANGE

Type of inspection hatch

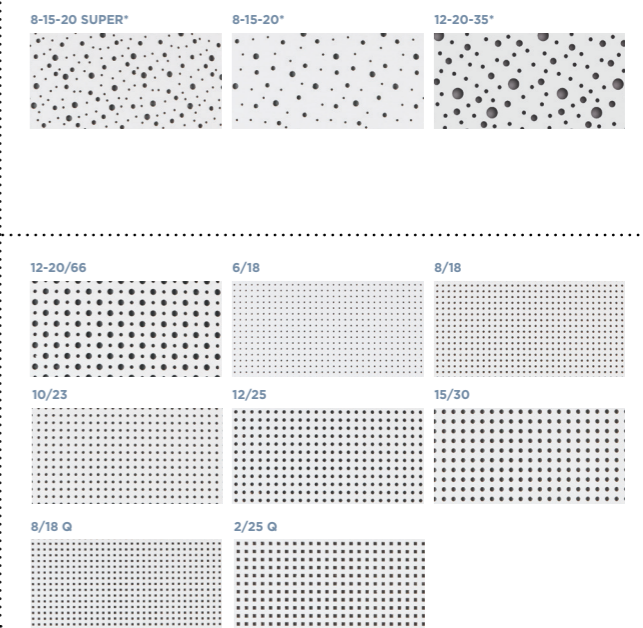


Explanations

Frame only: * for random patterns, only the frame is supplied: the cut-out part of the panel is to be integrated directly on site.

The frame is supplied with the cut-out part in the desired pattern.

Patterns concerned



Installation principles



12-20/66 pattern

Two possible types of installation:

- On RIGI 60 metal framings 60
- On Stil Prim® Tech system 62

Steps for installing a Rigitone® Access inspection hatch

Application of Rigitone® Mix filler

RIGI 60: METAL FRAMINGS SUITABLE FOR RIGITONE® EDGE & RIGITONE®

With the **Rigitone® Rigi 60** edge profile, installation of the Rigitone® Edge/Rigitone® ceiling is even easier.

+ SYSTEM

- Two Rigitone® Edge/Rigitone® panels can be screwed to a single Rigi 60 furring
- Very good structural stability and excellent ceiling rigidity
- Easy to install

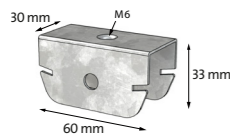
STANDARDS

- Rigi 60 furring profiles comply with EN 14195.
- Rigi 60 accessories comply with EN 13964.

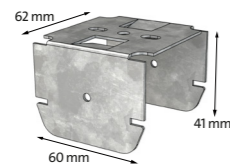
INSTALLATION

- Rigi 60 furring profiles are used with the corresponding accessories from the Rigi 60 range:

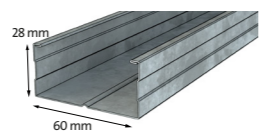
1 RIGITONE® RIGI 60 BRACKET



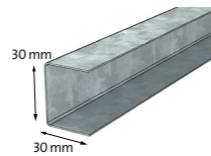
2 RIGITONE® RIGI 60 CROSS CONNECTOR



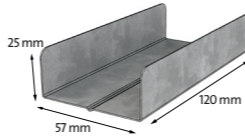
3 RIGITONE® RIGI 60 FURRING PROFILE



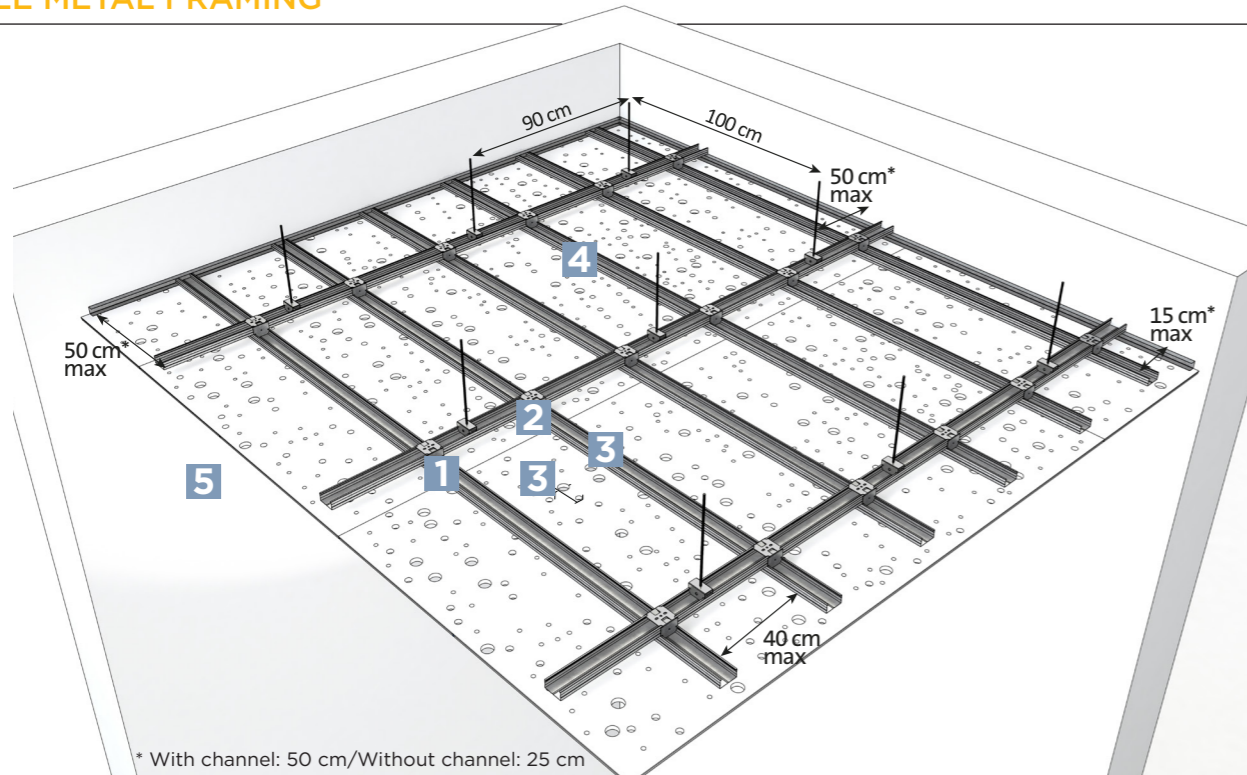
4 RIGITONE® RIGI 60 CHANNEL



5 RIGITONE® RIGI 60 EXTENSION CONNECTOR



CONSTITUTION OF A RIGITONE® EDGE & RIGITONE® CEILING ON A RIGI 60 DOUBLE METAL FRAMING



Indicative quantities for 1 m² of ceiling

Product	Unit	Quantities	
		Rigitone®	Rigitone® Edge
Panel	m ²	1.05	1.05
Rigi 60 furring profile	ml	4.3	4.3
Rigitone® Rigi 60 cross connector	piece	3	3
Rigi 60 extension connector (optional)	piece	1.3	1.3
Rigi 60 bracket	piece	1	1
TTPC 25 screw	piece	24	24
Rigitone® Mix (ready-to-use filler) or Vario® (powdered filler to be prepared)	litre	80 ml	56 ml
	kg	0.25	0.175

Quantities per m² of Rigitone® Access hatches : depending on the jobsites.

INSTALLATION ON A DOUBLE RIGI 60 METAL FRAMING

1 FIX THE BRACKETS

Fix the Rigi 60 brackets every 90 cm, keeping a centre distance of 100 cm between future primary profiles lines.

2 FIX THE PRIMARY PROFILES TO THE BRACKETS

Fix the Rigi 60 furring profiles to the Rigi 60 brackets.

3 FIX THE SECONDARY PROFILES PERPENDICULAR TO THE PRIMARY PROFILES USING CROSS CONNECTORS

Fix the Rigi 60 furring profiles using Rigi 60 cross connectors : observe a maximum centre distance of **40 cm** between the secondary profiles lines.

THINK ABOUT IT:

For the installation of Rigitone® straight-edged panels, use a panel spacer before jointing.

FLASH HERE TO SEE THE RIGITONE® EDGE INSTALLATION VIDEO



STIL PRIM® TECH FOR LONG-SPAN, NON-REMOVABLE DECORATIVE CEILINGS IN RIGITONE® EDGE & RIGITONE® PANELS

Stil Prim® Tech profiles are used to create long-span Rigitone® Edge & Rigitone® ceilings (up to 3.50 m).

+ SYSTEM

- Maximum distance between Stil Prim® Tech hangers = 3.00 m
- Structural stability and ceiling rigidity

STANDARDS

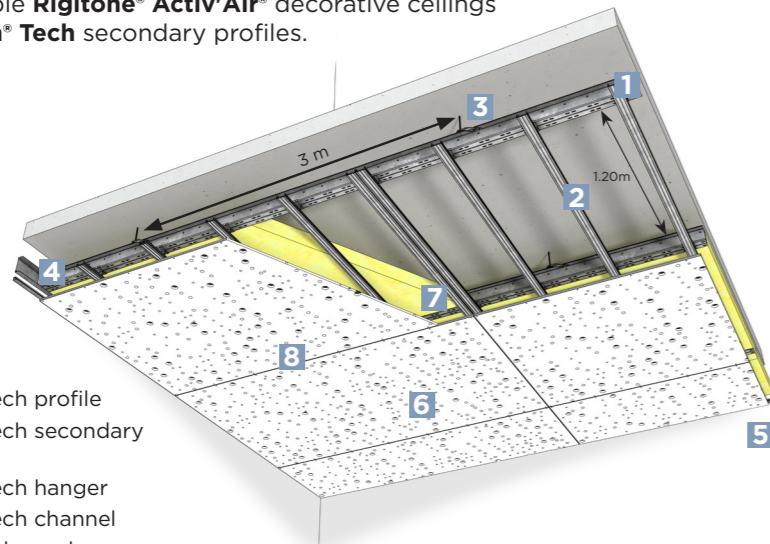
- Stil Prim® Tech profiles comply with the EN 14195 standard.

INSTALLATION

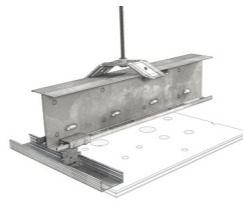
- Rigitone® Edge & Rigitone® panels are fixed to Stil® F530 furring profiles or Stil Prim® Tech secondary profiles. They are positioned every 0.40 m and fixed to the Stil Prim® Tech primary framing.

CONSTITUTION OF A RIGITONE® CEILING ON A STIL PRIM® TECH PRIMARY FRAMING

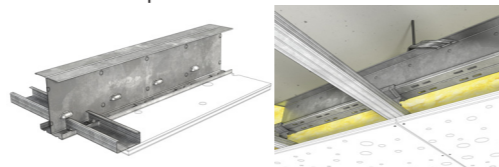
Non-removable **Rigitone® Activ'Air®** decorative ceilings with **Stil Prim® Tech** secondary profiles.



Focus on **Rigitone® Activ'Air®** with **Stil Prim® Tech** hangers



Focus on **Rigitone® Activ'Air®** with **Stil Prim® Tech** secondary profiles



- 1 Stil Prim® Tech profile
- 2 Stil Prim® Tech secondary profiles
- 3 Stil Prim® Tech hanger
- 4 Stil Prim® Tech channel
- 5 Stil® F 530 channel
- 6 Rigitone® Activ'Air® panel
- 7 Insulation: mineral wool/wood fibre/recycled textile
- 8 Rigitone® Mix or Vario®

Indicative quantities for 1 m² of ceiling

Product	Unit	Quantities	
		Rigitone® Edge	Rigitone®
Panel	m ²	1.05	1.05
Stil Prim® Tech R channel	ml	0.03	0.03
Stil® F 530 channel	piece	0.03	0.03
Stil Prim® Tech hanger	piece	0.20	0.20
Stil Prim® Tech 90 / 600 profile	ml	0.88	0.88
Stil Prim® Tech 90 extension connector	piece	0.15	0.15

Installation with Stil Prim® Tech secondary profiles

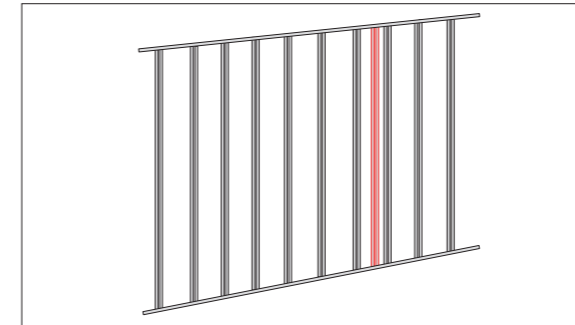
Stil Prim® Tech secondary profiles	ml	3.28	3.28
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Installation with hangers

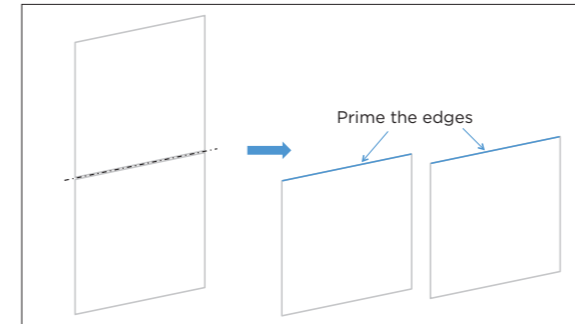
Stil Prim® Tech hangers	unit	2.74	2.74
Stil® F 530 furring profile	ml	3.28	3.28

TTPC 25 screw	piece	27	27
Rigitone® Mix (ready-to-use filler) or Vario® (powdered filler to be prepared)	litre	56 ml	80 ml
	kg	0.175	0.25

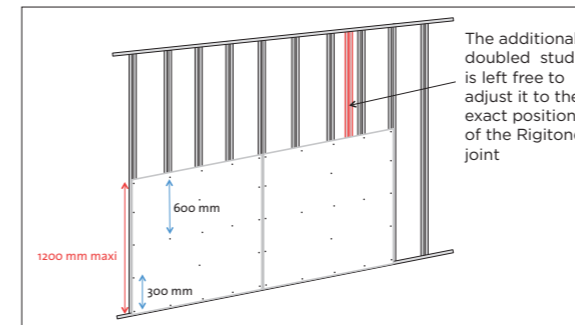
VERTICAL PARTITION INSTALLATION



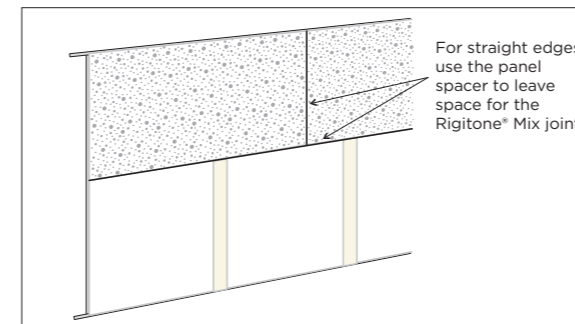
- 1 Install **Stil® R48** top and bottom channels (maximum height between supports: 2.50 m). Install **Stil® M48** studs, doubled back to back, every 300 mm. Add an additional **Stil® M48** doubled stud positioned at the **Rigitone®** panels joint place (shown in red in the diagram).



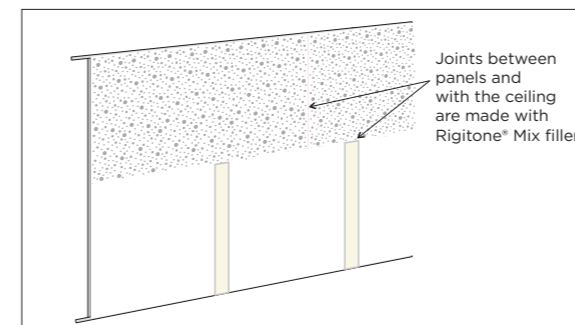
- 2 Cut the **Placoplatre® BA 13** panels to required size and prime the edges where the junctions with either **Rigitone® Edge** or **Rigitone®** panels will be made.



- 3 Screw in the **Placoplatre® BA 13** panels at the bottom (minimum height of 1.2 m). The additional doubled stud is left free to adjust it to the exact position of the **Rigitone®** joint. **Rigitone® Edge/Rigitone®** panels are installed horizontally.



- 4 Make the joints in the lower part of the wall. **Install the Rigitone® Edge/Rigitone®** panels. For **straight-edged** Rigitone® panels: use the panel spacer to leave space for the joint with **Rigitone® Mix** filler. For Rigitone® Edge panels with a **chamfered** edge: use the chamfered edges to wedge the panels for the joint with **Rigitone® Mix** filler.



- 5 Make the joints in the top part of the wall, with **Rigitone® Mix** filler. Joints between panels and with the ceiling are also made with **Rigitone® Mix** filler. The panels are ready to be painted.

Rigitone® Edge/Rigitone® panels can be used as **wall lining** to improve the acoustic comfort of a room or to decorate it. Rigitone® Edge/Rigitone® is ideally used for lining a wall from 1.20 m height.

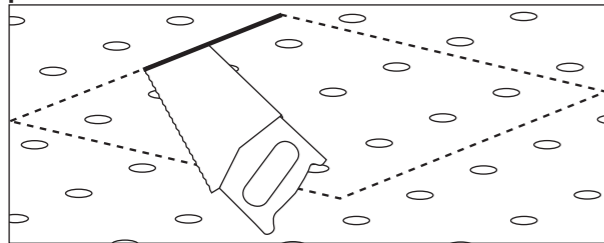
RIGITONE® ACCESS RANGE

Hatch enabling convenient access to technical ceiling installations.

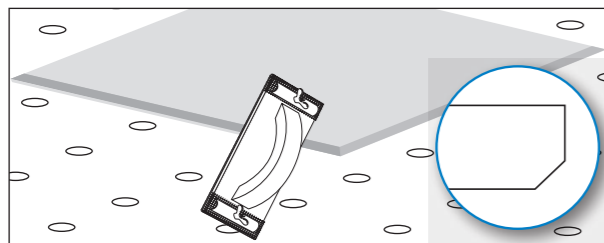
+ SYSTEM

- Attractive inspection hatch
- Fits in perfectly with perforated Rigitone® Activ'Air® panels

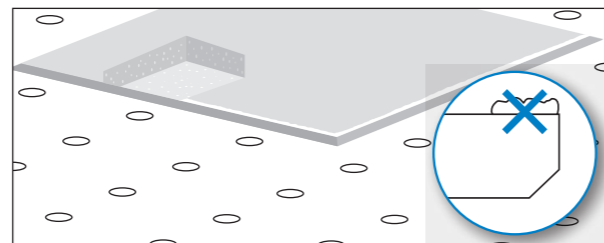
Inspection hatches with integrated perforated panel.



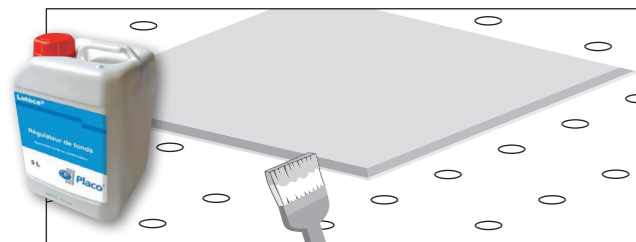
- 1 Size the space corresponding to the location of the frame. Cut the panel with a saw using the frame of the hatch as a template (refer to the guide provided in the hatch box for nominal cutting dimensions and minimum plenum).



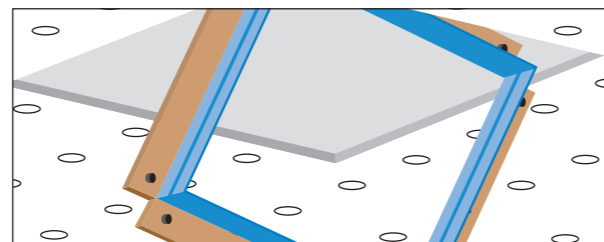
- 2 Sand the edges.



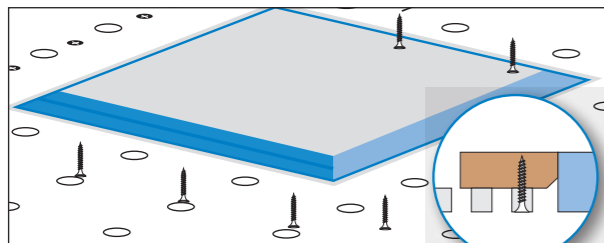
- 3 Clean the surface from plaster dust.



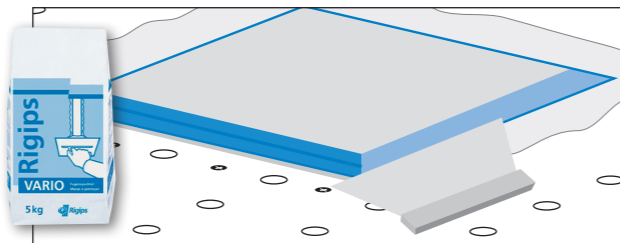
- 4 Apply **Lutece®** primer.



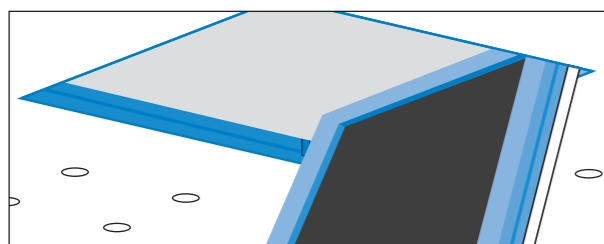
- 5 Fit the frame and adjust using the bolts.



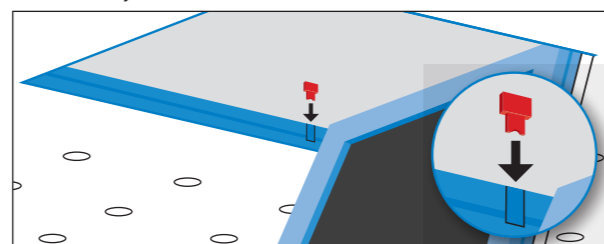
- 6 Fix the frame using the screws.



- 7 Fill the joint with filler.



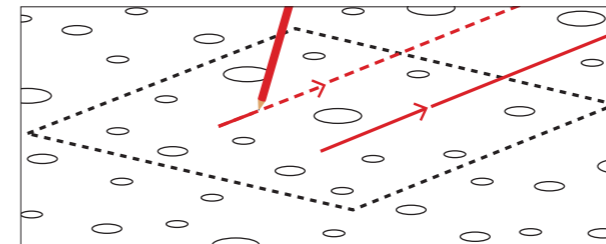
- 8 Press in the damper and push into place.



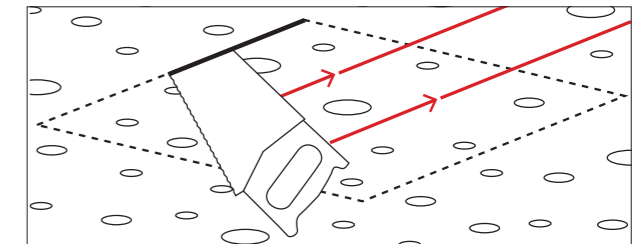
- 9 Install the safety pins and close the damper.

Inspection hatches with integrated perforated panel.

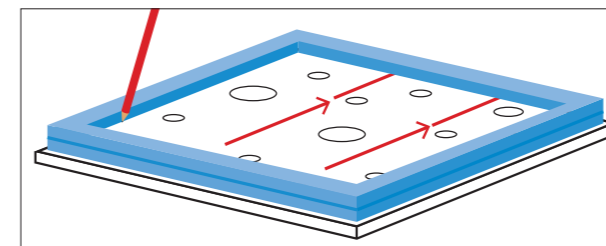
Cutting of Rigitone® Edge & Rigitone® panels (random patterns) to be integrated in the Rigitone® Access frame.



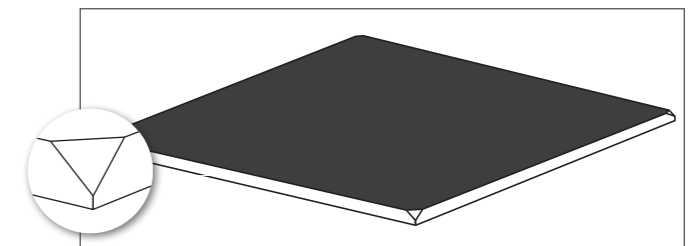
- 1 Using a pencil, indicate the direction of the panel.



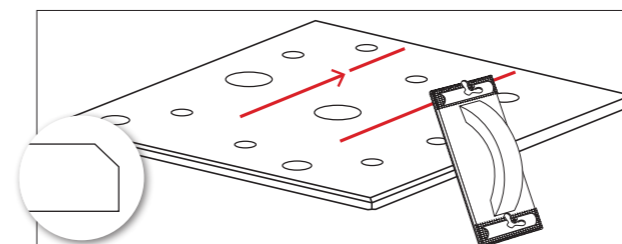
- 2 Measure, draw and cut out the contours.



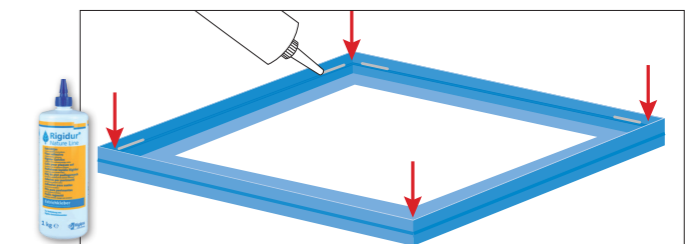
- 3 Position the frame in the middle of the cut-out part and draw the outline.



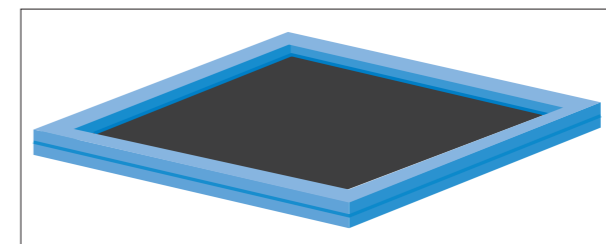
- 4 Notch the four corners on the back of the panel.



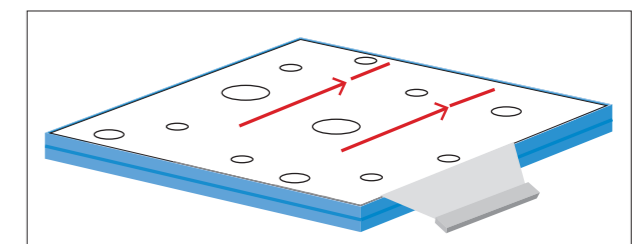
- 5 Sand the edges of the panel on its top.



- 6 On the inside of the frame, apply a 2 to 4cm wide strip of **Rigidur® Nature Line** joint adhesive or another polyurethane-based glue suitable for aluminium and plasterboard.



- 7 Place the created **Rigitone®** tile on a flat surface, visible face on the floor. Place the frame on the tile and press lightly and then let dry for about 1.5 hour.



- 8 Fill the remaining space between the **Rigitone®** panel and the frame with **Vario®** filler. Install the **Rigitone® Access** hatch as shown in the previous diagram.

RIGITONE® MIX FILLER: READY-TO-USE FILLER

Rigitone® Mix is the ready-to-use filler solution developed by Placo® to facilitate the installation of Rigitone® Edge and Rigitone® ceilings.

In addition to a significant time and efficiency savings thanks to the elimination of several steps of preparation of Vario® filler (mixing, cleaning of the bucket), Rigitone® Mix also allows for a cleaner jobsite.

+ SYSTEM

- Ready-to-use solution
- Easy and quick to apply
- Easy to level and sand
- Easy to clean with water
- Light
- Cleanliness of the site facilitated

CONSUMPTION

A 600 ml joint filler pack is equivalent to the installation of:

Consumption	Rigitone® Edge ceilings	Rigitone® ceilings
Surface area (m ²)	Up to 11 m ²	Up to 8 m ²

STANDARDS

Rigitone® Mix filler benefits from A+ classification for Internal Air Quality (Eurofins report in accordance with ISO 16 000).

CHARACTERISTICS

Types	Detail
Type of product	Rigitone® ceiling jointing filler
Material	Jointing filler
Capacity	600 ml
Refill weight	Approx. 325 g
Type of packaging	Flexible refill
Expiration date	7 months (joint filler pack closed and protected against frost)
Application temperature	5 to 35°C
Drying time	12 to 48 hours (depending on humidity conditions)
Sanding time	After 12 to 24 hours (depending on humidity)
Reaction to fire	F
Colour	White

INSTALLATION

- Rigitone® Mix filler is to be used with the Rigitone® Mix Kit. No cleaning is required between applications (except for the nozzle, which can be reused afterwards).
- The Rigitone® Mix Kit includes the following accessories:

1 RIGITONE® MIX GUN



2 RIGITONE® NOZZLES



2 RIGITONE® CAPS



1 RIGITONE® SCRAPER



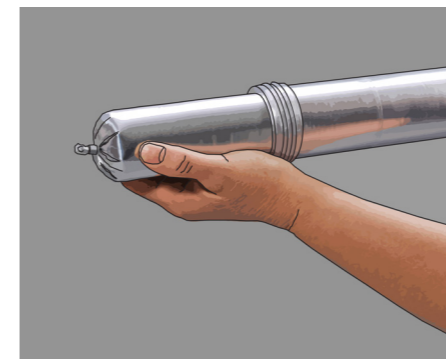
1 RIGITONE® SPATULA
(FOR COVERING SCREW HEADS)



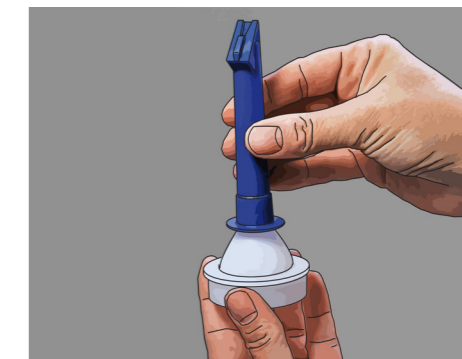
1 CLEANING BRUSH



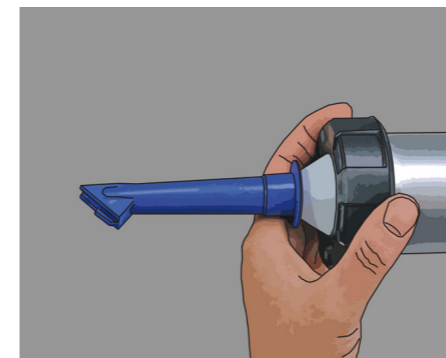
JOINTING: PREPARATION OF THE RIGITONE® MIX KIT



- 1 Slide the Rigitone® Mix cartridge into the Rigitone® Mix gun and cut off the end.



- 2 Screw the dispensing nozzle onto the cap.

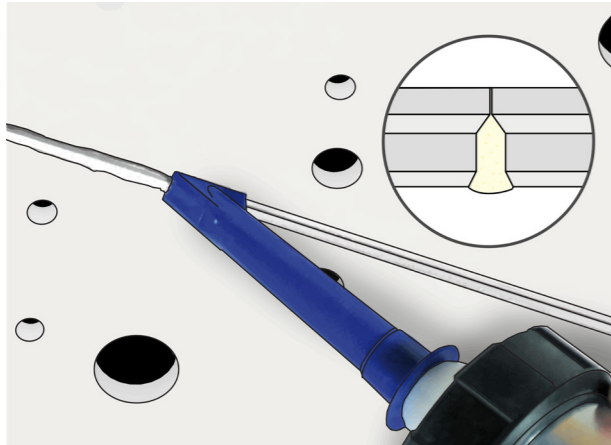


- 3 Place the cap on the end of the gun. Screw the assembly on using the black end cap and tighten it on the gun.



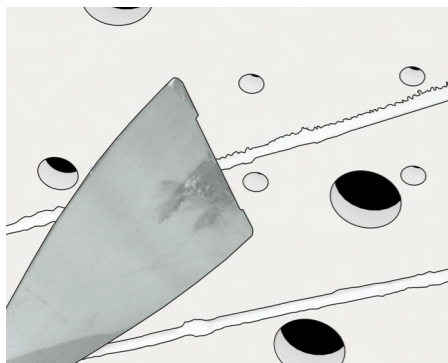
- 4 Engage the gun trigger and press the gun gradually to release the filler from the nozzle.

JOINTING: APPLICATION OF RIGITONE® MIX FILLER

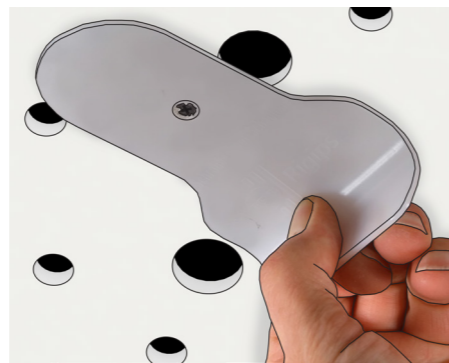


- 5 Pull the trigger until the Rigitone® Mix reaches the dispensing nozzle. Fill the joints to their full depth.

JOINTING: LEVELLING AND FINISHING



- 6 After 1 hour, carefully remove excess filler with the spatula and smooth the joint cleanly.




- 7 Mask the screw heads with the Rigitone® spatula, let dry and level off the excess with the spatula. If necessary, lightly sand after 24 hours.



- 8 After 12 to 24 hours, depending on the humidity of the room, lightly sand the surface with very fine sandpaper to remove the last residues.

The surface is ready to be painted, using a roller only.

 In order to ensure a uniform effect of the final paint, apply an undercoat.





12-25 Q pattern

Standard descriptions

Rigitone® Edge Activ'Air® 72

Rigitone® Activ'Air® 73



INSTALLATION

(Width and length to be specified according to the pattern)

- The ceiling will be made of Rigitone® Edge Activ'Air® panels, with 4 **chamfered** edges, with a thickness of 12.5 mm and dimensions mm.
- The panels will be screwed at most every 17 cm on a **double framing** system **consisting of Rigi 60 furring profiles**.
- The primary profiles, with a maximum centre distance of 1,000 mm, will be fixed to the support by means of Rigi 60 brackets positioned every 900 mm.
- The secondary profiles will have a maximum centre distance of **400 mm**.
- Joints will be made using Rigitone® Mix filler.
- **The mineral wool**, mm thick, will be **without a vapour barrier**. Insulation possible with bio-based insulation: wood fibre or recycled textile.
- The panels, which comply with the NF EN 14190 standard, will be made of 100% recyclable plaster.

INDOOR AIR QUALITY

- Panels will be labelled **A+**.
- They will have a measured absorption rate of up to **70%** of indoor air pollutants (formaldehydes), depending on the configuration of the room (with a ratio of Activ'Air® surface area to room volume of 0.4m²/m³) - Performance measured by the independent laboratory Eurofins.

ACOUSTIC PERFORMANCE

- The ceiling will have an absorption coefficient α_w of..... .
- Absorption coefficients will be measured according to the EN ISO 354 standard and calculated according to the EN ISO 11654 standard.

ACCESSIBILITY

- The plenum can be made accessible by installing Rigitone® Access inspection hatches.

REACTION TO FIRE

- A2-s1, dO.

INSTALLATION

(Width and length to be specified according to the pattern)

- The ceiling will be made of Rigitone® Activ'Air® panels, with 4 **straight** edges, a thickness of 12.5 mm and dimensions mm.
- The panels will be screwed every 17 cm at most on a **double framing** system **consisting of Rigi 60 furring profiles**.
- The primary profiles, with a maximum centre distance of 1,000 mm, will be fixed to the support by means of Rigi 60 brackets positioned every 900 mm.
- The secondary profiles will have a maximum centre distance of **400 mm**.
- Joints will be made with Rigitone® Mix filler.
- **The mineral wool**, mm thick, will be **without a vapour barrier**. Insulation possible with bio-based insulation: wood fibre or recycled textile.
- The panels, which comply with the NF EN 14190 standard, will be made of 100% recyclable plaster.

INDOOR AIR QUALITY

- Panels will be labelled **A+**.
- They will have an average measured absorption rate of up to **70%** of indoor air pollutants (formaldehydes), depending on the configuration of the room (with a ratio of Activ'Air® surface area to room volume of 0.4m²/m³) - Performance measured by the independent laboratory Eurofins.

ACOUSTIC PERFORMANCE

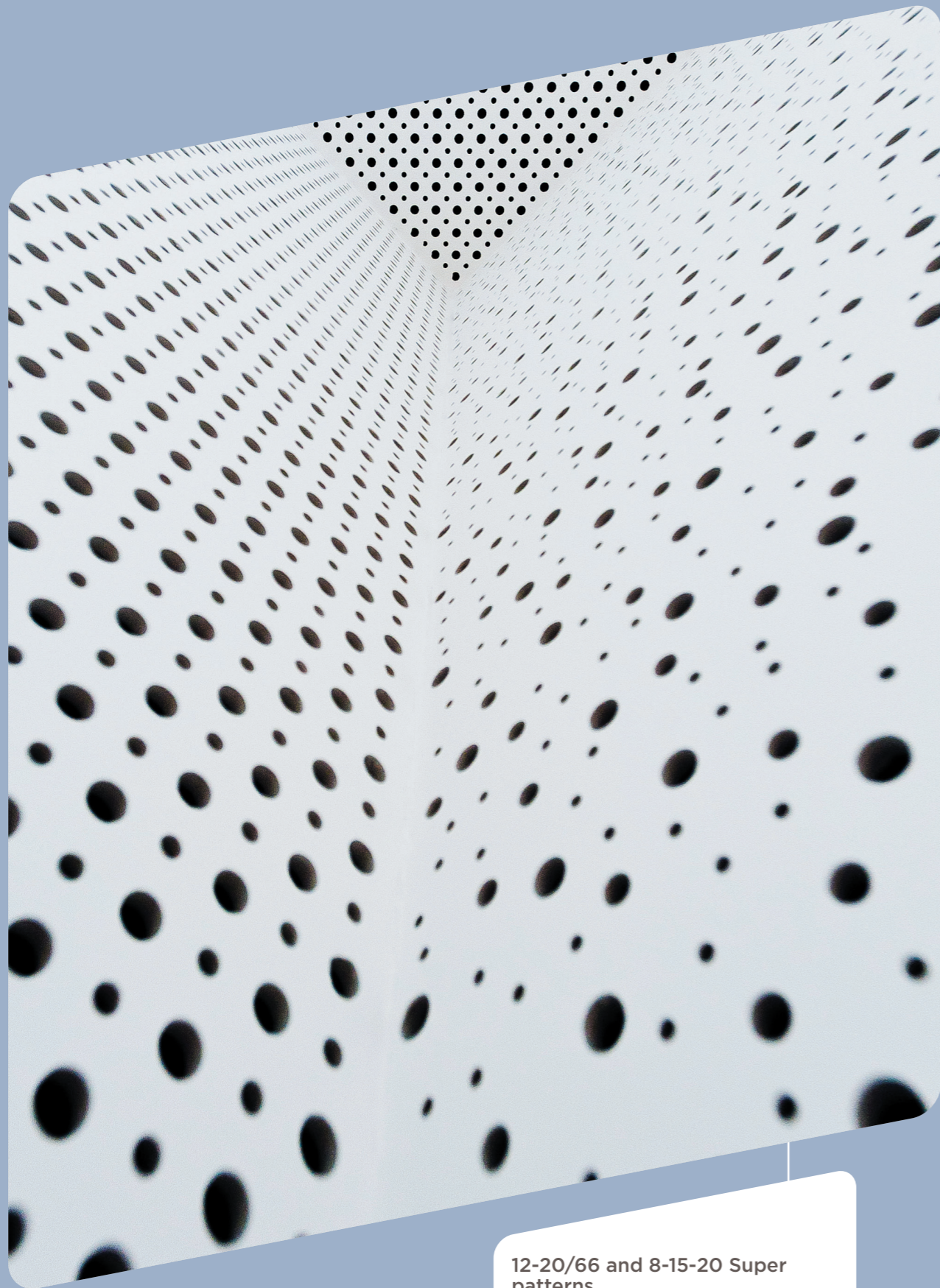
- The ceiling will have an absorption coefficient α_w of..... .
- Absorption coefficients will be measured according to the EN ISO 354 standard and calculated according to the EN ISO 11654 standard.

ACCESSIBILITY

- The plenum can be made accessible by implementing Rigitone® Access inspection hatches.

REACTION TO FIRE

- A2-s1, dO.



Regulations & technical performance

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12-20/66 and 8-15-20 Super patterns



REACTION TO FIRE

Fire behaviour is assessed according to two criteria, reaction to fire and resistance to fire.

REACTION TO FIRE

The concept of reaction to fire characterises the ability of a material to participate or not in the development of fire.

Rigitone® Edge and Rigitone® ceilings are classified **A2-s1, d0**, which means:

ACCORDING TO THE EUROCLASSES APPLICABLE TO BUILDING PRODUCTS:

- **A1, A2:** very low or no contribution to fire even in the case of a very large fire.

Classification for smoke production:

- **s1:** very limited smoke production.

Classification d for the production of flaming droplets and particles:

- **d0:** no droplets (SBI test).

FIRE RESISTANCE

Fire resistance characterises the time during which the building elements can perform their intended function despite the action of a fire.

The degrees of fire resistance are expressed in duration:


- French system in hours or fractions of hours: 1/4 hour, 1/2 hour, 1 hour, 1 hour 30 minutes, 2 hours, 3 hours, 4 hours, 6 hours.
- European system in minutes: 15, 20, 30, 45, 60, 90, 120, 180, 240, 360.

THE MAIN CLASSIFICATIONS ARE AS FOLLOWS:

- **Load-bearing capacity - SF (French classification) or R (European classification):** time during which a load-bearing building element assumes its structural function (mechanical resistance).
- **Fire resistance - PF (French classification) or E (European classification):** time during which a building element is fire-stable, tight to flames, hot or flammable gases.
- **Fire tightness and thermal insulation - CF (French classification) or I (European classification):** time during which a building element is stable to fire, flame-block and where the temperature rise does not exceed an average of 140°C and 180°C at any point.

In combination with an PRF® ceiling, Rigitone® Edge and Rigitone® panel ceilings have the following fire resistance performance:

- **REI 30 to REI 120** under wooden floors - see report No. RS 16.038 O 1616.041.



ACOUSTIC COMFORT

Acoustics concerns the emission, propagation and reception of sounds and noises within the same room or between different rooms. Good acoustic insulation contributes in a harmonious way to the creation of a healthy and pleasant atmosphere.

- **Internal acoustics:** this enables to ensure the acoustic quality of premises. This can be a place where listening must be eased (auditoriums, teaching rooms, etc.), a place where the noise level must be reduced (offices, industrial premises, entrance halls, etc.) or a place where the acoustics are specific (sports halls, restaurants, home cinema rooms and other private areas).

These are the essential performances required and possible thanks to the entire range of Placo® decorative ceilings.

- **Acoustic insulation:** this enables to limit or control the sound transmission between different premises.

Noises can be:

- Airborne: speech, television, sound animations
- Impacts: walking, shocks, vibrations
- Equipment: ventilation, taps, air conditioning

By their very nature, Placo® decorative ceilings meet the requirements for acoustic insulation.

- **Decibel (dB):** the decibel is the unit of measurement for noises. It is equal to 10 times the logarithmic ratio between the measured intensity and the reference intensity.

- **Frequency:** this quantifies the pitch of a sound. It is expressed in Hertz (Hz).

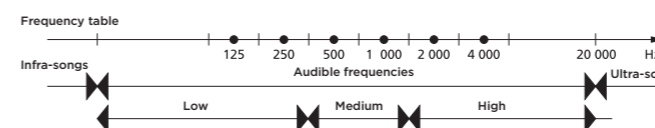
There are three types of frequencies:

- Low frequencies (from 20 to 400 Hz)
- Medium frequencies (400 to 1,600 Hz)
- High frequencies (1,600 to 20,000 Hz)

There are six frequency groups, each with a centre frequency.

These 6 groups, called octaves, are centred on 125 Hz, 250 Hz, 500 Hz, 1,000 Hz, 2,000 Hz and 4,000 Hz.

Frequency table:



- **Absorption coefficient (α_w):** this index corresponds to the ratio of the absorbed acoustic energy to the incident acoustic energy.

When an acoustic wave hits a surface, a very small fraction of the incident energy passes through the surface (acoustic insulation). The other, larger fraction of the wave is partly reflected and partly absorbed.

If a material has a $\alpha_w = 0$, it is totally reflective; if its $\alpha_w = 1$, it is absorbing.

According to the standards, five product classes are defined as follows:

ABSORPTION CLASSES	REQUIREMENT (α_w)
A	0.90/0.95/1
B	0.80/0.85
C	0.60/0.65/0.70/0.75
D	0.30/0.35/0.40/0.45/0.50/0.55
E	0.15/0.20/0.25
Not classified	0.15/0.20/0.25

The quality of absorption is also measured by the ability of the material to absorb across the entire range of frequencies, which is the main characteristic of plasterboard-based ceilings.

- **Speech intelligibility:** this characterises the quality of speech perception and understanding and depends on several parameters, such as the geometric configuration of the room, the nature of the walls, floors and ceilings, and the ambient noise level. The RASTI (Rapid Speech Transmission Index) is used and ranges from 0 (poor understanding) to 1 (good understanding).

- **Equivalent absorption area A in m²** of a room (wall, ceiling, floor): this is the sum of the products of the surface areas of the walls of a room by their respective α_w absorption assessment index: $A = \sum \alpha_{wi} S_i$.

- **Reverberation time T in seconds:** the reverberation time is the time it takes for a sound to decrease by 60 dB after the sound source has stopped.

It is expressed in seconds and defines the acoustic characteristics of the room.



BEHAVIOR TO HUMIDITY

The EN 13964 standard classifies premises according to their exposure conditions into four classes.

CLASS A

Maximum ambient temperature 25°C 70% RH (equivalent to the EA and EB classification of premises as defined in CSTB specification 3335).

CLASS B

Maximum ambient temperature 30°C 90% RH (equivalent to the EB+ classification of private premises as defined in CSTB specification 3335).

CLASS C

Maximum ambient temperature of 30°C with risk of condensation (similar to the EB+ collective and EC classification of premises as defined in CSTB specification 3335).

CLASS D

Ambient conditions above 90% RH with risk of condensation and aggressive environment (similar to the collective EB+ and EC classification of premises as defined in CSTB specification 3335).

Rigitone® panels can be used in premises with low and medium humidity, i.e. class A and B premises.



PAINTING STORAGE MAINTENANCE

PAINTING

Painting must be **carried out using a roller to avoid altering the acoustic properties and obstructing the tissue**, in accordance with the rules of DTU 59.1 (painting works).

It is recommended to apply an undercoat in order to prepare the support for future painting and to avoid see the panel joints appear.

STORAGE

Stacks of panels must be stored:

- Flat;
- On dry and level ground;
- Protected against weather and dirt.

The storage of the panels must be carried out flat on wedges arranged in the direction of the width and on a level floor.

The wedges are at least as long as the width of the panels and are spaced at most 0.50m apart. Damaged panels (broken or cracked) must not be used.

MAINTENANCE

Panels must be fitted under enclosed, **covered** site conditions.

In the event of soiling, use a dry or very slightly damp cloth (preliminary test recommended).



PACKAGING

Type	Reference	Product dimensions (mm)	Packaging
Rigitone® Edge Activ'Air® panels	Rigitone® Edge Activ'Air® 8-15-20	1,200 x 2,000 x 12.5 mm	Pallet of 20 panels with protective film
	Rigitone® Edge Activ'Air® 8-15-20 Super	1,204 x 1,961 x 12.5 mm	
	Rigitone® Edge Activ'Air® 8/18	1,188 x 1,998 x 12.5 mm	
	Rigitone® Edge Activ'Air® 8/18 Q	1,188 x 1,998 x 12.5 mm	
	Rigitone® Edge Activ'Air® 12-25 Q	1,200 x 2,000 x 12.5 mm	
	Rigitone® Edge Activ'Air® 12-20/66	1,188 x 1,980 x 12.5 mm	
Rigitone® Activ'Air® panels	Rigitone® Activ'Air® 6/18	1,188 x 1,998 x 12.5 mm	Pallet of 20 panels with protective film
	Rigitone® Activ'Air® 15/30	1,200 x 2,010 x 12.5 mm	
	Rigitone® Activ'Air® 12-20-35	1,200 x 2400 x 12.5 mm	
	Rigitone® Activ'Air® 12/25	1,200 x 2,000 x 12.5 mm	
	Rigitone® Activ'Air® 10/23	1,196 x 2,001 x 12.5 mm	
Rigitone® Access inspection hatches	Rigitone® Access 300 x 300mm	300 x 300mm	Inspection hatch delivered in a box by unit
	Rigitone® Access 400 x 400mm	400 x 400 mm	
	Rigitone® Access 500 x 500mm	500 x 500 mm	
	Rigitone® Access 600 x 600mm	600 x 600 mm	



TECHNICAL ASSISTANCE



In order to **provide solutions to the technical problems you encounter**, Placo® provides technical assistance dedicated to specifiers and installation companies.

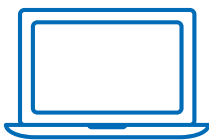
The team provides a daily hotline and assists professionals in finding solutions to the technical problems they encounter.

YOU CAN REACH US AT THIS TOLL-FREE NUMBER:

+33 (0)9 72 72 00 53

Opening hours:

- from Monday to Thursday from 8am to 12pm and from 1.30pm to 5pm;
- and Friday from 8am to 12pm and from 2pm to 4pm.



And for more information **Placo® keeps you informed:**

placo.fr

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SAINT-GOBAIN

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