ALPHA ACOUSTIKI

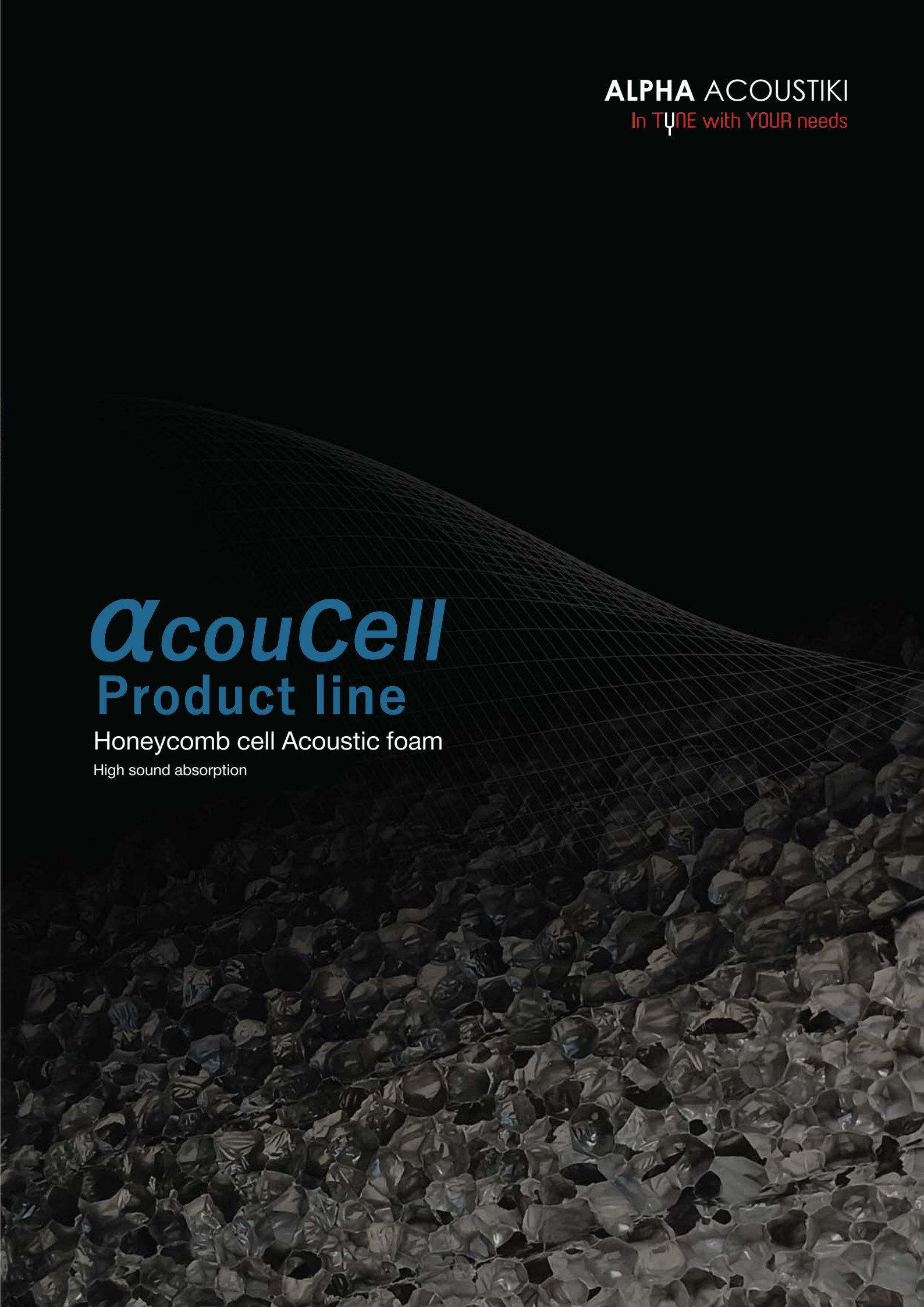
In TUNE with YOUR needs

αcouCell

Product line

Honeycomb cell Acoustic foam

High sound absorption



αcouCell

Honeycomb closed cell foam

HIGH SOUND ABSORPTION

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23 #Votsalo
SET OF ORGANIC FORM PANELS

26 #Expa
EXPANDABLE SLAB

αcouCell
#Slab

Honeycomb closed cell foam

HIGH SOUND ABSORPTION - SLABS

αcouCell-Slab: An innovative acoustic material for high sound absorption in Slabs

αcouCell-Slab

Description

αcouCell-Slab is a honeycomb foam made of polyethylene foam. It has closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal clarity. In black color its original external appearance resembles, looked at from a distance, as granite relief surface

Please contact us if it is intended for exterior installation.

Main characteristics

High sound absorption especially in the mid frequency (human speech), low weight, fiber free, structurally indedent, moisture resistant, washable surface, fire retardant.
The acoustic energy enters internally the cells stimulating the membranes of each cell converting this energy to heat.
Due to the light weight and its self supporting structure – it is very easy to be cut and installed on site.

Main advantages

Sound absorption: High sound absorption in the mid frequency
Water resistance: Provides unaltered and sustained acoustic performance in wet or humid conditions.
Strong structure: Semi-Rigid, self-supporting structure, easy to cut and easy to install on site
Light weight: Less than 1.5kg per square meter at 50mm
Fiber free: No fibrous materials, low VOC, zero ODP, does not cause irritations, does not crumble
Transmission loss: 13dB at 50mm thickness

Dimensions: 120 x 240 cm
Color: Dark grey/ White
Thickness: 50mm standard, 25mm upon request
Fire rating: According to DIN 4102:B1, EN 13501-1 (B, S2 d0)

αcouCell #Slab

Honeycomb closed cell foam
HIGH SOUND ABSORPTION - SLABS

Typical applications

αcouCell-Slab can be used to offer sound absorption in a variety of projects such as recording studios, home cinemas, night clubs, restaurants, indoor pools, gyms, car washing tunnels, shooting ranges, sports halls etc. It can also be applied as ceiling vertical baffles, high speed rail/motorway Noise barriers, internal air-ducts lining, ventilation and air conditioning – sound attenuators/ silencers specially where there is high humidity, etc.
Moreover, it can be installed as self-supporting panels with mechanical support (expandable anchors with suitable washers) or liquid or spray magnetic adhesive. It is very easy to cut with a blade or a suitable saw.

Bellow you are some panel combination examples on a typical wall:

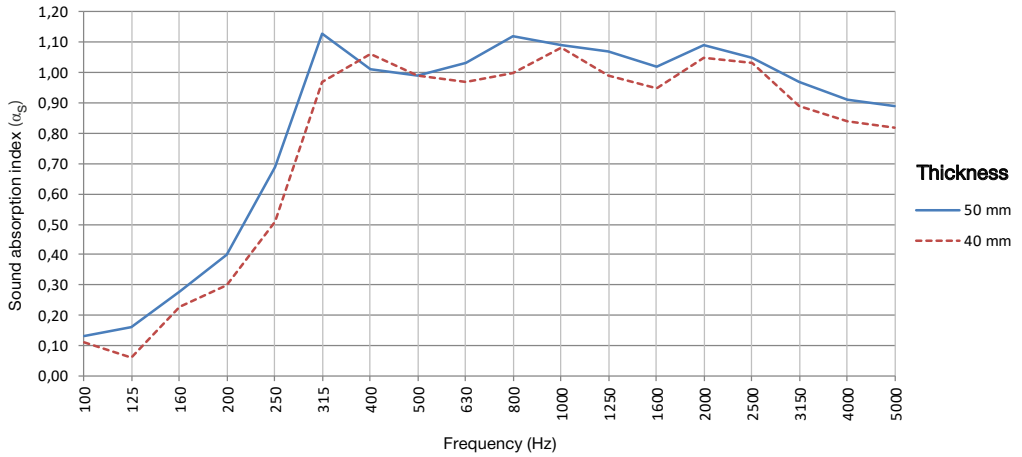
AcouCell #Slab

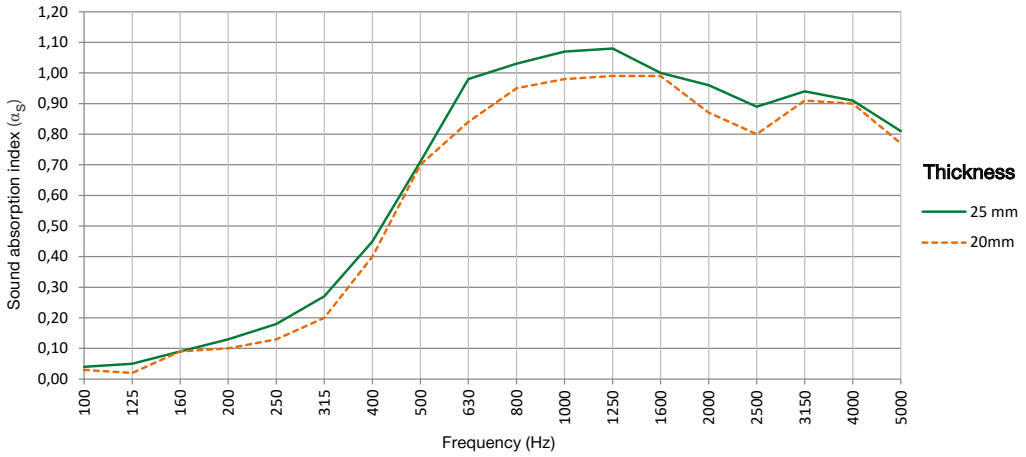
Honeycomb closed cell foam

HIGH SOUND ABSORPTION - SLABS

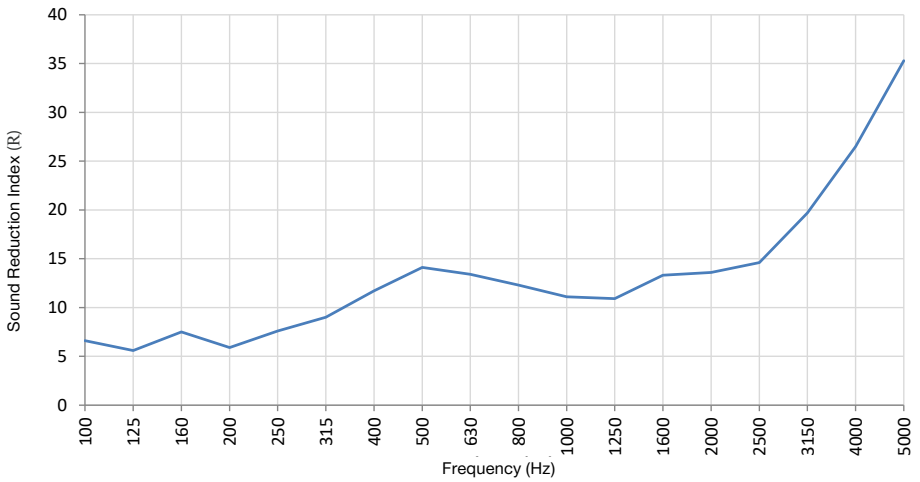
Acoustic characteristics

Lab measurements of sound absorption in reverberation room according to EN ISO 354





Transmission loss according to EN ISO 140 & ISO 717.1



Rw=13 dB

for 50 mm thickness

αcouCell #Slab

Honeycomb closed cell foam

HIGH SOUND ABSORPTION - SLABS

Technical specifications

Physical Properties	Test Method	Unit	Typical Physical Properties
Nominal Density	ASTM D3575-08 Suffix W ISO 845:2006	Kg/m^3	25
Compressive Strength Vertical @ 25%	ASTM D3575-08 Suffix D ISO 7214:2007	KPa	7 12
Compressive Strength 25% (4th compression) 50% (4th compression) 70% (4th compression) (100mm/min compression speed)	ISO 3386 1986 part 1 DIN 53577	KPa	3 7 25
Compression Set	ASTM D3575-08 Suffix B (50% Compression) ISO 1856:2000 (25% compression)	%	< 30 < 20
Cell Size	BS 4443/1 Met.4	Cells/25mm	< 10
Fire-test-response Characteristics (1) Transportation Automotive Building & Construction	TS EN 45545-2 NF F 16-101 DIN 54837 FMVSS 302 DIN 4102 EN 13501-1	Class Class - Class Class	HL2 for flooring. HL1 for ceiling and wall. F1 S3, SR2, ST2 Pass B1
Water Pick Up by Diffusion (RH > 95% - after 28 days)	UNI EN 12088	Kg/m2	< 3
Water Pick Up by Diffusion (RH > 95% - after 28 days)	UNI EN 12088	Volume %	< 5
Thermal Conductivity @ 23°C @ -5°C	ASTM D3575-08 Suffix V ISO 8301	W/mK	0.104 0.082
Thermal stability (24hrs at 70°C)	ASTM D3575-08 Suffix S ISO 2796	%	< 3
Tensile Strength @ Peak	ASTM D3575 Suffix T ISO1798	KPa	130
Tensile Elongation	ASTM D3575 Suffix T ISO1798	%	60
VOC Emissions	AFNOR NF EN ISO 16000-9	Class	A+

(1) These numerical laboratory fire-test-response characteristics are not intended to reflect hazards presented by this material under actual fire conditions.

αcouCell #Hexa

Honeycomb closed cell foam

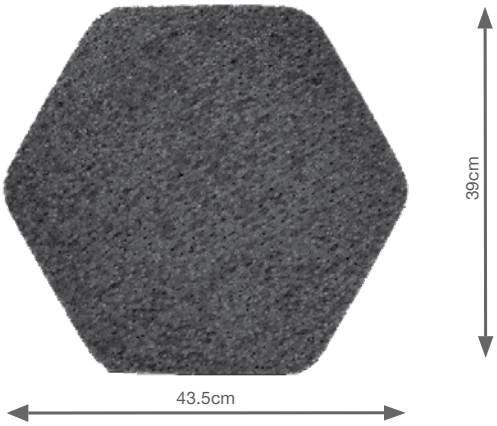
HIGH SOUND ABSORPTION - HEXAGON FORM

αcouCell-Hexa: An innovative acoustic panel for high sound absorption in hexagon form.

αcouCell-Hexa

Description

αcouCell-Hexa is a honeycomb foam, in hexagon form. It has closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal clarity. Its original external appearance resembles, looked at from a distance, as granite relief surface (some people even simulate it as volcanic).



Front View

Main characteristics

High sound absorption especially in the mid frequency (human speech), low weight, fiber free, structurally indedent, moisture resistant, washable surface, fire retardant.
The acoustic energy enters internally the cells stimulating the membranes of each cell converting this energy to heat.

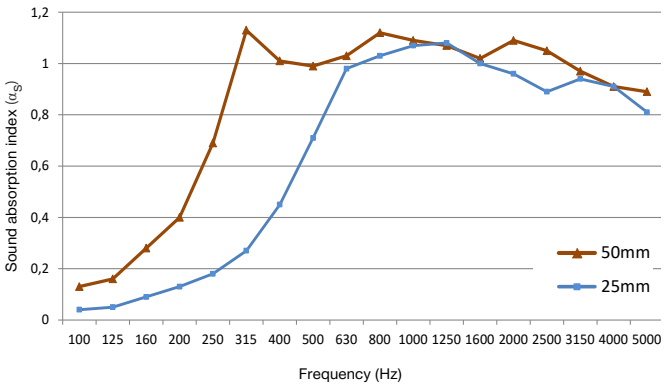
Dimensions: 43.5 x 39 cm
Thickness: 50mm standard
Color: Dark grey standard /White on demand
Packing: Box of 6 pieces.
Fire rating: According to DIN 4102:B1, EN 13501-1 (B, S2 d0)
Water resistance: Provides unaltered and sustained acoustic performance in wet or humid conditions.

Acoustic performance

The sound absorption index (α_s) according to ISO 354.2003 per square meter is presented in the diagram on the right. The weighted sound absorption coefficient (α_w) according to ISO 11654.1997 can be found in the following table:

Type: αcouCell	Weighted Sound Absorption Coefficient (α_w)	Sound Absorption Class
50mm	1	A
25mm	0.50	D

Tested by accredited laboratories.



αcouCell #Hexa

Honeycomb closed cell foam

HIGH SOUND ABSORPTION - HEXAGON FORM

Typical applications

αcouCell-Hexa can be used in a variety of projects even in spaces with high humidity. They can be attached to the wall or ceiling to form patterns.

Theyaretypicallyinstalledinhome Theaters,Recording&PostProduction Studios,RehearsalRooms,ConferenceRooms,nightclubs,bars,offices, meetingrooms,swimmingpools,mechanicalrooms,restaurantsetc.

Bellowyouaresomepanelcombinationexamplesonatypicalwall:

Installation method

Due to the light weight and its self- supporting structure of the panels it is very easy to be installed on site.
Step 1: The panels can be installed in contact to one another or leaving a gap and form compositions.
Step 2: Once the desired pattern is decided the positions of the panels on the wall or ceiling should be determined.
Step 3: Then, each piece can be glued with magnetic spray adhesive (ask us for information) or using mechanical fastening with suitable plastic anchors.

Alternatively, the accessories shown in the figure can be used to attach the panels to the wall or ceiling. The metal elements are manually screwed onto the back side of the panel. The suspension hooks thus inserted into the panel can be anchored to the L-shaped screws attached to the ceiling or wall.

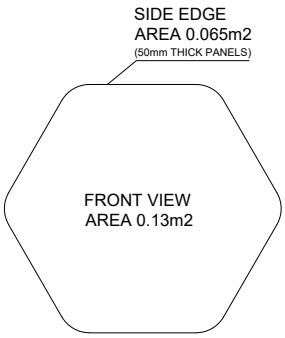
Not included

Available sound absorbing area

According to the selected installation method, the available sound absorbing area may be the front, the sides or also the back of the panel.

For the 50mm thick standard hexa panels the front and back side area are 0.13m^2 each. The side edges total area is 0.065m^2. Therefore, if the panels are eg attached to a wall at a distance from each other the available sound absorbing are is 0.195m^2 for each panel.

The maximum sound absorbing area is achieved if all sides of the panel are visible e.g. when hang from the ceiling at a distance from walls or other surfaces.



AcouCell #Hexa Wood

Honeycomb closed cell foam
HIGH SOUND ABSORPTION - HEXAGON FORM

Wood face hexagon panels

AcouCell-Hexa is produced in its plain for and with a variety of faces. Our Wood face line adds a perforated form panel on the front side of the panel, offering a warm, natural aesthetic.

By covering the front surface of the sound-absorbing material with a wooden face with appropriate perforation we present a new look in the warm and natural shades of wood, offering a modern product that meets the particular preferences of customers.

As the wood perforation exceeds 20%, the sound absorption capacity of the underlying material remains unchanged.

Having developed the cutting technology we can create various designs, based on the needs of our customers, depending on the size of the order.

Hexa Bubble

The face material

The wooden face is made of an High-Density-Fiberboard (Masonite - HDF) with a wood appearance lamination.

The wooden panel is perforated to form a pattern that allows the AcouCell material to be partially visible. The sound is transferred to the acoustic material through the perforation to achieve the desired acoustic result.

The wooden panel is also sold separately. It can be attached to the standard Hexa panels using a magnetic spray adhesive to change their appearance.

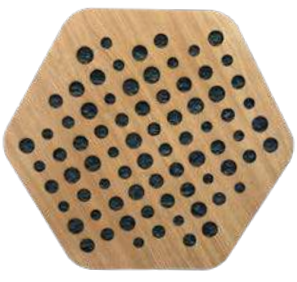
Hexa Maze

The perforation patterns

The panels are perforated to form patterns on the wood panel. There is a variety of patterns in our collection in different design styles. The possibilities are limitless. It is possible to micro-perforate the panel in order to achieve a plain wood effect without compromising the acoustic performance of the panel.

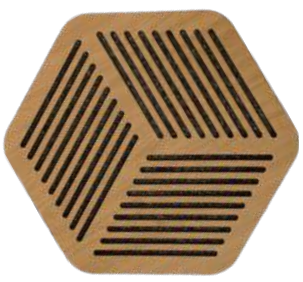
The main perforation patterns are presented below:

Hexa Maze



Hexa Bubble

Hexa Jali



Hexa Qube

αcouCell #Hexa Felt

Honeycomb closed cell foam
HIGH SOUND ABSORPTION - HEXAGON FORM

Felt face hexagon panels

αcouCell-Hexa is produced in its plain form and with a variety of felt faces. Our Felt face line adds a new look on the front side of the panel offering more aesthetic options.

By covering the front surface of the sound-absorbing material with a special sound transparent recycled polyester PET felt, we offer more color options in order to satisfy the special requirements of each project.

The main acoustic core element is a honeycomb foam, with closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal clarity.

Hexa FM 03

The face material

The felt face is made of a carefully selected sound transparent felt with a warm appearance.

The felt face is attached on either a dark grey or a white Hexa panel to create a variety of color combinations. It is available in a collection of standard colors.

Hexa FM 05

Core material

FM 01

FM 02

FM 03

FM 04

FM 05

Color Matching
Batch to batch variations in shade may occur with commercial tolerances.
Photographic felt scans are not color accurate. Always request actual felt samples, before ordering.

αcouCell
#Petalo

Honeycomb closed cell foam

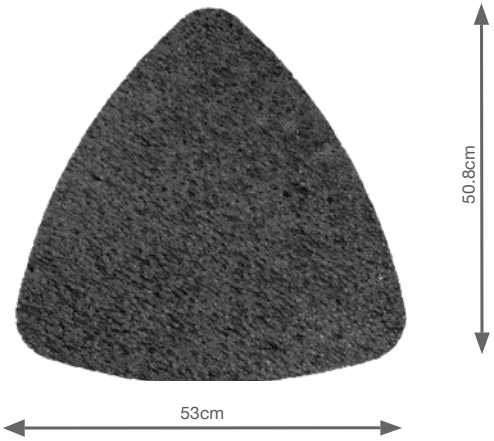
HIGH SOUND ABSORPTION - ROUNDED TRIANGLE FORM

αcouCell-Petalo: An innovative acoustic panel for high sound absorption in rounded triangle form.

αcouCell-Petalo

Description

αcouCell-Petalo is a panel made of honeycomb acoustic cell foam. Inspired by nature and the symmetry of flower petals, we created the curved triangular form. It has closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal clarity. Its original external appearance resembles, looked at from a distance, as granite relief surface (some people even simulate it as volcanic).



Front View

Main characteristics

High sound absorption especially in the mid frequency (human speech), low weight, fiber free, structurally indedent, moisture resistant, washable surface, fire retardant.
The acoustic energy enters internally the cells stimulating the membranes of each cell converting this energy to heat.

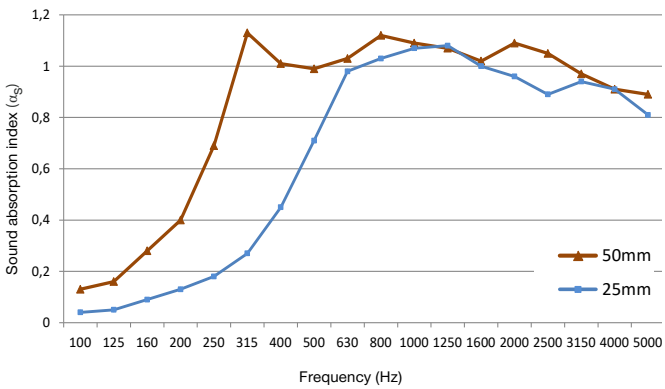
Dimensions: 53 x 50.8cm
Thickness: 50mm standard
Color: Dark grey standard /White on demand
Packing: Box of 6 pieces.
Fire rating: According to DIN 4102:B1, EN 13501-1 (B, S2 d0)
Water resistance: Provides unaltered and sustained acoustic performance in wet or humid conditions.

Acoustic performance

The sound absorption index (α_s) according to ISO 354.2003 per square meter is presented in the diagram on the right. The weighted sound absorption coefficient (α_w) according to ISO 11654.1997 can be found in the following table:

Type: αcouCell	Weighted Sound Absorption Coefficient (α_w)	Sound Absorption Class
50mm	1	A
25mm	0.50	D

Tested by accredited laboratories.



αcouCell #Petalo

Honeycomb closed cell foam

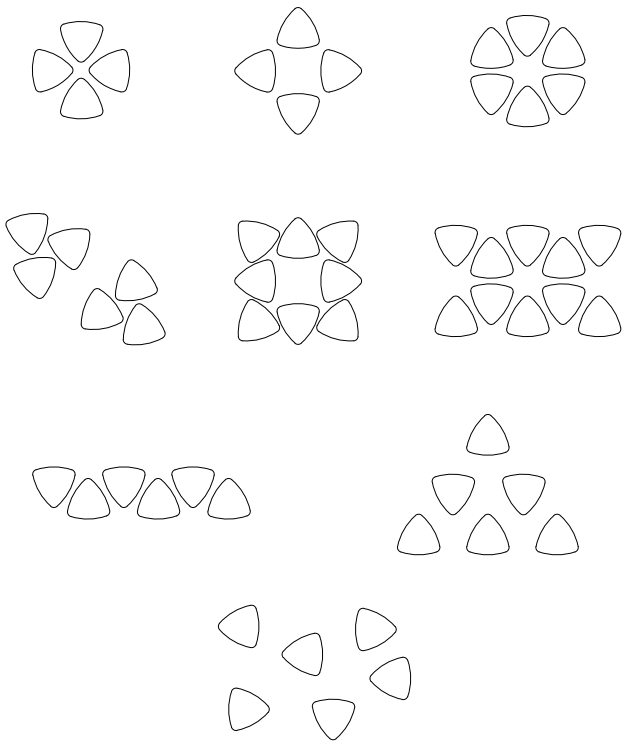
HIGH SOUND ABSORPTION - ROUNDED TRIANGLE FORM

Typical applications

αcouCell-Petalo can be used in a variety of projects even in spaces with high humidity. They can be attached to the wall or ceiling to form patterns.

Theyaretypicallyinstalledinhome Theaters,Recording&PostProduction Studios,RehearsalRooms,ConferenceRooms,nightclubs,bars,offices, meetingrooms,swimmingpools,mechanicalrooms,restaurantsetc.

Bellow you are some panel combination examples:



Installation method

Due to the light weight and its self- supporting structure of the panels it is very easy to be installed on site.
Step 1: The panels can be installed in contact to one another or leaving a gap and form compositions.
Step 2: Once the desired pattern is decided the positions of the panels on the wall or ceiling should be determined.
Step 3: Then, each piece can be glued with magnetic spray adhesive (ask us for information).

Alternatively, the accessories shown in the figure can be used to attach the panels to the wall or ceiling. The metal elements are manually screwed onto the back side of the panel. The suspension hooks thus inserted into the panel can be anchored to the L-shaped screws attached to the ceiling or wall.

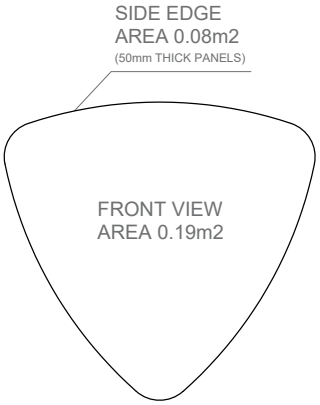
Not included

Available sound absorbing area

According to the selected installation method, the available sound absorbing area may be the front, the sides or also the back of the panel.

For the 50mm thick standard Petalo panels the front and back side area are 0.19m^2 each. The side edges total area is 0.08m^2. Therefore, if the panels are e.g. attached to a wall at a distance from each other the available sound absorbing are is 0.27m^2 for each panel.

The maximum sound absorbing area is achieved if all sides of the panel are visible eg when hang from the ceiling at a distance from walls or other surfaces.



AcouCell
#Petalo Wood

Honeycomb closed cell foam
HIGH SOUND ABSORPTION - ROUNDED TRIANGLE FORM

Wood face petal shaped panels

AcouCell-Petalo is produced in its plain for and with a variety of faces. Our Wood face line adds a perforated form panel on the front side of the panel, offering a warm, natural aesthetic.

By covering the front surface of the sound-absorbing material with a wooden face with appropriate perforation we present a new look in the warm and natural shades of wood, offering a modern product that meets the particular preferences of customers.

As the wood perforation exceeds 20%, the sound absorption capacity of the underlying material remains unchanged.

Having developed the cutting technology we can create various designs, based on the needs of our customers, depending on the size of the order.

Petalo Bubble

The face material

The wooden face is made of an High-Density-Fiberboard (Masonite - HDF) with a wood appearance lamination.

The wooden panel is perforated to form a pattern that allows the AcouCell material to be partially visible. The sound is transferred to the acoustic material through the perforation to achieve the desired acoustic result.

The wooden panel is also sold separately. It can be attached to the standard Petalo panels using a magnetic spray adhesive to change their appearance.

Petalo Omni

The perforation patterns

The panels are perforated to form patterns on the wood panel. There is a variety of patterns in our collection in different design styles. The possibilities are limitless. It is possible to micro-perforate the panel in order to achieve a plain wood effect without compromising the acoustic performance of the panel.

αcouCell #Petalo Felt

Honeycomb closed cell foam

HIGH SOUND ABSORPTION - ROUNDED TRIANGLE FORM

Felt face petal shaped panels

αcouCell-Petalo is produced in its plain form and with a variety of felt faces. Our Felt face line (with felt feel) adds a new look on the front side of the panel offering more aesthetic options.

By covering the front surface of the sound-absorbing material with a special sound transparent recycled polyester PET felt, we offer more color options in order to satisfy the special requirements of each project.

The main acoustic core element is a honeycomb foam, with closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal clarity.

Petalo FM 01

The face m aterial

The felt face is made of a carefully selected sound transparent felt with a warm appearance.

The felt face is attached on either a dark grey or a white Petalo panel to create a variety of color combinations. It is available in a collection of standard colors.

Petalo FM 05

The standard color collection

The panels are available in a variety of standard colors. Most colors have a mélange felt appearance. It is possible to choose other color shades of felts, depending on the quantity.

The main colors available are presented below:

Core material

FM 01

FM 02

FM 03

FM 04

FM 05

Color Matching

Batch to batch variations in shade may occur with commercial tolerances.

Photographic felt scans are not color accurate. Always request actual felt samples, before ordering.

αcouCell #Rec

Honeycomb closed cell foam

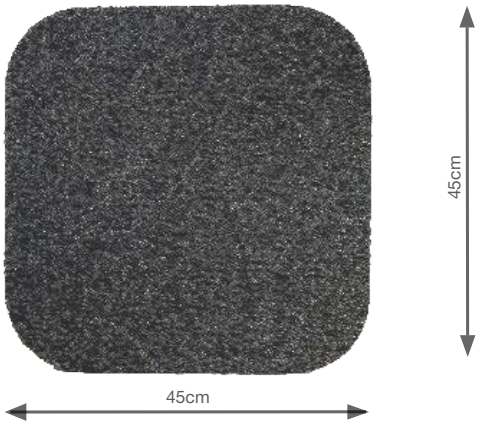
HIGH SOUND ABSORPTION - RECTANGLE FORM

αcouCell-Rec: An innovative acoustic panel for high sound absorption in Rectangle form.

αcouCell-Rec

Description

αcouCell-Rec is a honeycomb foam, in rectangle and square forms with curved corners. It has closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal clarity. Its original external appearance resembles, looked at from a distance, as granite relief surface (some people even simulate it as volcanic).



Front View

Main characteristics

High sound absorption especially in the mid frequency (human speech), low weight, fiber free, structurally indedent, moisture resistant, washable surface, fire retardant.
The acoustic energy enters internally the cells stimulating the membranes of each cell converting this energy to heat.

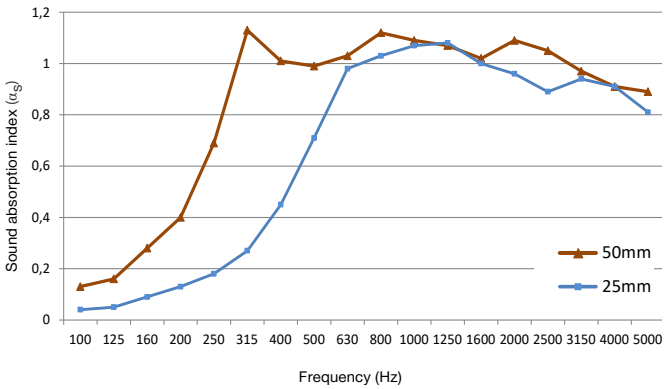
Dimensions: 45 x 45 cm
Thickness: 50mm standard
Color: Dark grey standard /White on demand
Packing: Box of 6 pieces.
Fire rating: According to DIN 4102:B1, EN 13501-1 (B, S2 d0)
Water resistance: Provides unaltered and sustained acoustic performance in wet or humid conditions.

Acoustic performance

The sound absorption index (α_s) according to ISO 354.2003 per square meter is presented in the diagram on the right. The weighted sound absorption coefficient (α_w) according to ISO 11654.1997 can be found in the following table:

Type: αcouCell	Weighted Sound Absorption Coefficient (α_w)	Sound Absorption Class
50mm	1	A
25mm	0.50	D

Tested by accredited laboratories.



αcouCell #Rec

Honeycomb closed cell foam
HIGH SOUND ABSORPTION - RECTANGLE FORM

Typical applications

αcouCell-Rec can be used in a variety of projects even in spaces with high humidity. They can be attached to the wall or ceiling to form patterns.

Theyaretypicallyinstalledinhome Theaters,Recording&PostProduction Studios,RehearsalRooms,ConferenceRooms,nightclubs,bars,offices, meetingrooms,swimmingpools,mechanicalrooms,restaurantsetc.

Bellowyouaresomepanelcombinationexamplesonatypicalwall:

Installation method

Due to the light weight and its self- supporting structure of the panels it is very easy to be installed on site.
Step 1: The panels can be installed in contact to one another or leaving a gap and form compositions.
Step 2: Once the desired pattern is decided the positions of the panels on the wall or ceiling should be determined.
Step 3: Then, each piece can be glued with magnetic spray adhesive (ask us for information).

Alternatively, the accessories shown in the figure can be used to attach the panels to the wall or ceiling. The metal elements are manually screwed onto the back side of the panel. The suspension hooks thus inserted into the panel can be anchored to the L-shaped screws attached to the ceiling or wall.

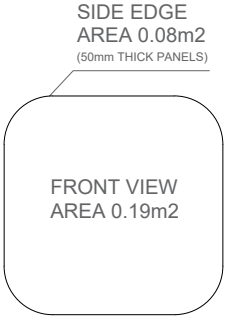
Not included

Available sound absorbing area

According to the selected installation method, the available sound absorbing area may be the front, the sides or also the back of the panel.

For the 50mm thick standard Rec panels the front and back side area are 0.19m^2 each. The side edges total area is 0.08m^2. Therefore, if the panels are eg attached to a wall at a distance from each other the available sound absorbing are is 0.27m^2 for each panel.

The maximum sound absorbing area is achieved if all sides of the panel are visible e.g. when hang from the ceiling at a distance from walls or other surfaces.



AcouCell
#Rec Wood

Honeycomb closed cell foam
HIGH SOUND ABSORPTION - RECTANGLE FORM

Wood face rectangle panels

AcouCell-Rec is produced in its plain for and with a variety of faces. Our Wood face line adds a perforated form panel on the front side of the panel, offering a warm, natural aesthetic.

By covering the front surface of the sound-absorbing material with a wooden face with appropriate perforation we present a new look in the warm and natural shades of wood, offering a modern product that meets the particular preferences of customers.

As the wood perforation exceeds 20%, the sound absorption capacity of the underlying material remains unchanged.

Having developed the cutting technology we can create various designs, based on the needs of our customers, depending on the size of the order.

Rec Lines

The face material

The wooden face is made of an High-Density-Fiberboard (Masonite - HDF) with a wood appearance lamination.

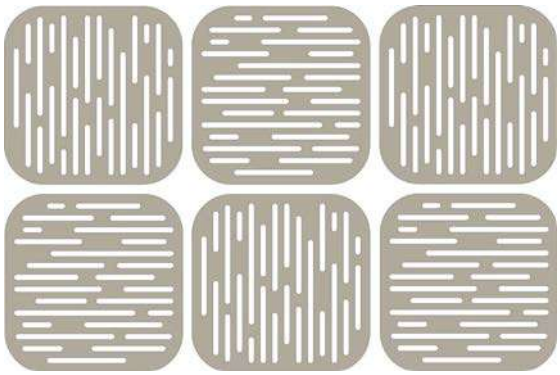
The wooden panel is perforated to form a pattern that allows the AcouCell material to be partially visible. The sound is transferred to the acoustic material through the perforation to achieve the desired acoustic result.

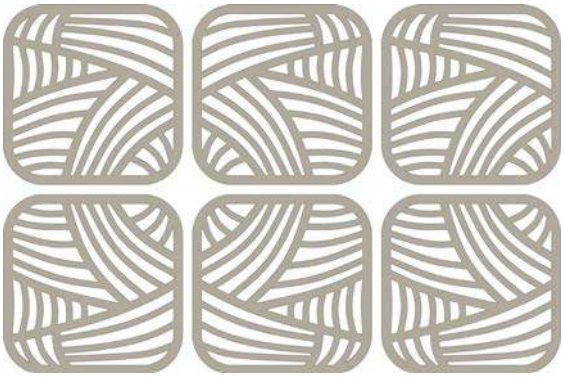
The wooden panel is also sold separately. It can be attached to the standard Rec panels using a magnetic spray adhesive to change their appearance.

Rec Leaf

The perforation patterns

The panels are perforated to form patterns on the wood panel. There is a variety of patterns in our collection in different design styles. The possibilities are limitless. It is possible to micro-perforate the panel in order to achieve a plain wood effect without compromising the acoustic performance of the panel.





αcouCell #Rec Felt

Honeycomb closed cell foam
HIGH SOUND ABSORPTION - RECTANGLE FORM

Felt face rectangle panels

αcouCell-Rec is produced in its plain form and with a variety of felt faces. Our Felt face line adds a new look on the front side of the panel offering more aesthetic options.

By covering the front surface of the sound-absorbing material with a special sound transparent recycled polyester PET felt, we offer more color options in order to satisfy the special requirements of each project.

The main acoustic core element is a honeycomb foam, with closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal clarity.

Rec FM 01

The face material

The felt face is made of a carefully selected sound transparent felt with a warm appearance.

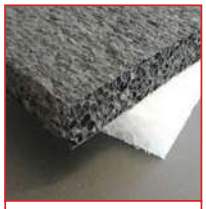
The felt face is attached on either a dark grey or a white Rec panel to create a variety of color combinations. It is available in a collection of standard colors.

Rec FM 02

The standard color collection

The panels are available in a variety of standard colors. Most colors have a mélange felt appearance. It is possible to choose other color shades of felts, depending on the quantity.

The main colors available are presented below:



Core material

FM 01

FM 02

FM 03

FM 04

FM 05

Color Matching
Batch to batch variations in shade may occur with commercial tolerances.
Photographic felt scans are not color accurate. Always request actual felt samples, before ordering.

αcouCell #TF

Honeycomb closed cell foam

HIGH SOUND ABSORPTION - TOTAL FABRIC COVERED PANELS

αcouCell-TF: An innovative acoustic panel for high sound absorption, with fabric cover, in a variety of shapes

AcouCell - Hexa.TF

Description

αcouCell-TF acoustic panels are produced with a Total Fabric covering on all visible front and sides of the basic panel, providing a visually pleasing solution while maintaining the sound absorption capacity of the inner core.

By using sound permeable fabric, you ensure that the panels can effectively absorb sound while offering a seamless and aesthetically pleasing appearance.

The main acoustic core element is a honeycomb foam, with closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal clarity.

The cover material

The fabric cover is made of a carefully selected sound transparent fabric.

The basic fabric type used is **ALPHAcoustic-CL.Air Mesh** with a 3d mesh look and a variety of colors and offers more options to the basic panel. More options are available upon request such as ALPHAcoustic-CL.CR.

Acoustic characteristics

High sound absorption especially in the mid frequency (human speech).

The weighted sound absorption coefficient (according to ISO 11654.1997) is $\alpha_{w=1}$ and the Sound Absorption Class is A.

The panel shapes

αcouCell-TF panels are produced in a range of three basic designs: Hexa, Petalo, and Rec. Each design adds its unique flair and visual appeal, ensuring that customers have options that suit their preferences and style. Moreover, our panels are available in a plethora of captivating color options, allowing customers to select from an extensive range of fabrics.

AcouCell - Hexa.TF

AcuCell - Petalo.TF

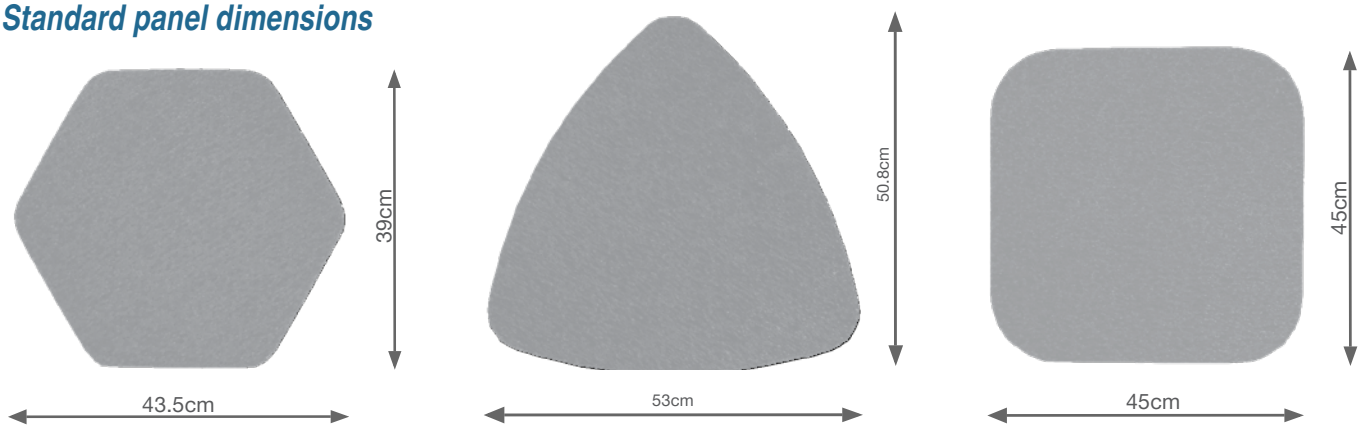
AcouCell - Rec.TF

αcouCell #TF

Honeycomb closed cell foam

HIGH SOUND ABSORPTION - TOTAL FABRIC COVERED PANELS

Standard panel dimensions



Standard panel thickness: 58mm

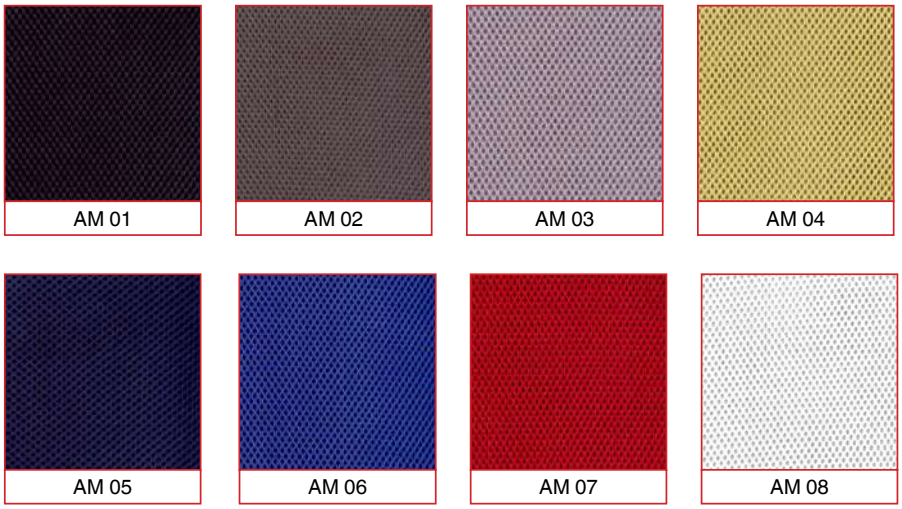
Installation

The accessories shown in the figure can be used to attach the panels to the wall or ceiling. The metal elements are manually screwed onto the back side of the panel. The suspension hooks thus inserted into the panel can be anchored to the L-shaped screws attached to the ceiling or wall.

Not included

The standard color collection

The panels are available in a variety of standard fabric colors. The standard fabric option is ALPHAcoustic-CL Type Air Mesh with a 3d mesh appearance fabric. The available colors are presented below:



Color Matching

Batch to batch variations in shade may occur with commercial tolerances.

Photographic fabric scans are not color accurate. Always request actual fabric samples, before ordering.

There is a collection of other fabric options to cover the acoustic panels AcouCell such as ALPHAcoustic-CL.CR. Please refer to our technical department

αcouCell

Honeycomb closed cell foam

HIGH SOUND ABSORPTION

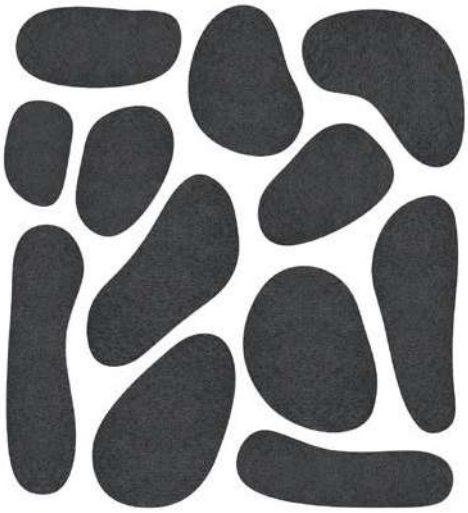
Special edition collection

αcouCell
#Votsalo

Honeycomb closed cell foam

HIGH SOUND ABSORPTION - SET OF ORGANIC FORM PANELS

αcouCell-Votsalo: Pebble form acoustic panels set, in curved, organic shapes



αcouCell-Votsalo

Description

αcouCell-Votsalo is a panel made of honeycomb acoustic cell foam. Inspired by the pebbles on the beach (=Votsalo in Greek), we created the curved organic shaped panels. The designed curves, referring to the curved forms that exist in the human body and in nature in general offer a soft, friendly and attractive aesthetic. The panels form different combinations with each other covering large areas while maintaining the high sound absorption of the material.

Each set of pebble form panels consists of 12 unique pieces produced in standard shapes. Due to the malleability of their innovative design they can be adapted to the needs of each project. Utilizing modern cutting technology, we can produce scaled up or down versions of the set of panels upon request.

Acoustic performance

The sound absorption index (α_s) according to ISO 354.2003 per square meter is presented in the diagram on the right. The weighted sound absorption coefficient (α_w) according to ISO 11654.1997 can be found in the following table:

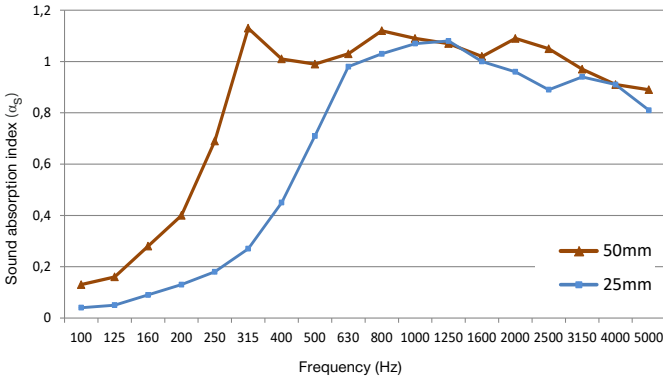
Type: αcouCell	Weighted Sound Absorption Coefficient (α_w)	Sound Absorption Class
50mm	1	A
25mm	0.50	D

Tested by accredited laboratories.

Main characteristics

High sound absorption especially in the mid frequency (human speech), low weight, fiber free, structurally indedent, moisture resistant, washable surface, fire retardant.
The set of panels offers the ability to cover large surfaces on walls and ceilings in a composition of your choice. You can create any original composition you can imagine.

Dimensions: 2.70X2.70m in their standard composition - panels in contact to one another
Thickness: 50mm standard
Color: Dark grey and White
Packing: 12 pieces of different shapes.
Fire rating: According to DIN 4102:B1, EN 13501-1
Water resistance: Provides unaltered and sustained acoustic performance in wet or humid conditions.



AcouCell #Votsalo

Honeycomb closed cell foam

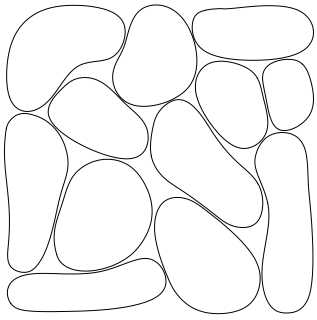
HIGH SOUND ABSORPTION - SET OF ORGANIC FORM PANELS

Typical applications

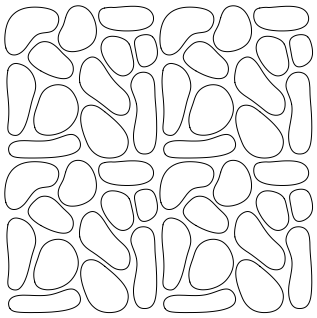
AcouCell-Votsalo can be used in a variety of projects even in spaces with high humidity. They can be attached to the wall or ceiling to form patterns.

They are typically installed in home Theaters, Recording & Post Production Studios, Rehearsal Rooms, Conference Rooms, night clubs, bars, offices, meeting rooms, swimming pools, mechanical rooms, restaurants etc.

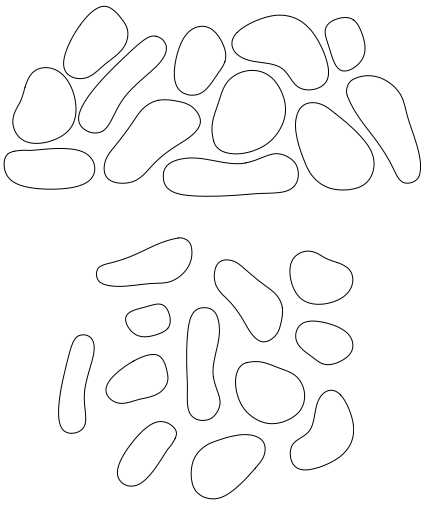
They are typically combined as a composition with the pieces filling the available space. The standard composition is designed to be fitted in a square shaped wall area. The free design of the forms of AcouCell -Votsalo enables numerous compositions according to the needs of each application.



Standard composition - panels in contact to one another



4 panel sets standard composition - panels at a distance



Free compositions examples

Installation method

Due to the light weight and its self- supporting structure of the panels it is very easy to be installed on site.
Step 1: The panels can be installed leaving a gap between one another and form compositions.
Step 2: Once the desired pattern is decided, the positions of the panels on the wall or ceiling should be determined.
Step 3: Then, each piece can be glued with magnetic spray adhesive (ask us for information) or using mechanical fastening with suitable plastic anchors.

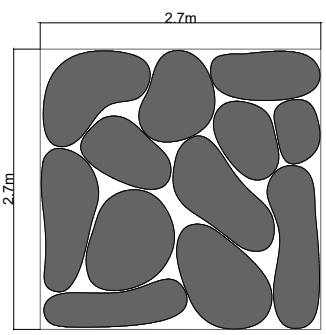
Alternatively, the following accessories can be used to hang the panels from the wall or ceiling. They are screwed in the panel by hand and form a hook for suspension.

Available sound absorbing area

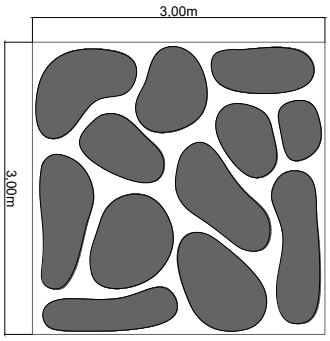
According to the selected installation method, the available sound absorbing area may be the front, the sides or also the back of the panel.

To ensure greater sound absorption, it would be good, if the forms are spaced from each other, leaving their peripheral surface free to sound reflections. The maximum sound absorbing area is achieved if all sides of the panel are visible eg when hang from the ceiling at a distance from walls or other surfaces. In its standard size, each set of panels has a total front face sound absorbing area of 5,97m2.

Standard dimensions



Standard composition - panels in contact to one another



Standard composition - panels at a distance from one another

αcouCell
#Votsalo Felt

Honeycomb closed cell foam
HIGH SOUND ABSORPTION - SET OF ORGANIC FORM PANELS

Votsalo FM 01

Felt face organic form panels

αcouCell-Votsalo is produced in its plain form and with a variety of felt faces. Our Felt face line adds a new look on the front side of the panel offering more aesthetic options.

By covering the front surface of the sound-absorbing material with a special sound transparent recycled polyester PET felt, we offer more color options in order to satisfy the special requirements of each project.

The main acoustic core element is a honeycomb foam, with closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal

Votsalo FM 02

The face material

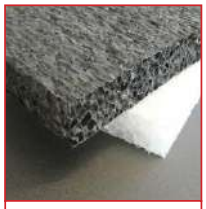
The felt face is made of a carefully selected sound transparent felt with a warm appearance.

The felt face is attached on either a dark grey or a white Votsalo panel to create a variety of color combinations. It is available in a collection of standard colors.

The standard color collection

The panels are available in a variety of standard colors. Most colors have a mélange felt appearance. It is possible to choose other color shades of felts, depending on the quantity.

The main colors available are presented below:



Core material

FM 01

FM 02

FM 03

FM 04

FM 05

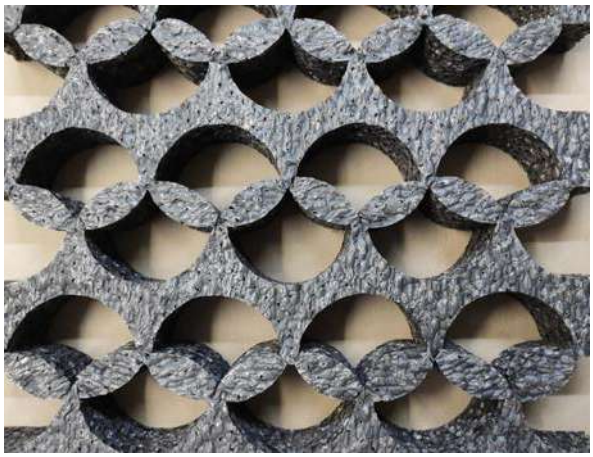
Color Matching
Batch to batch variations in shade may occur with commercial tolerances.
Photographic felt scans are not color accurate. Always request actual felt samples, before ordering.

αcouCell
#Expa

Honeycomb closed cell foam

HIGH SOUND ABSORPTION - EXPANDABLE SLAB

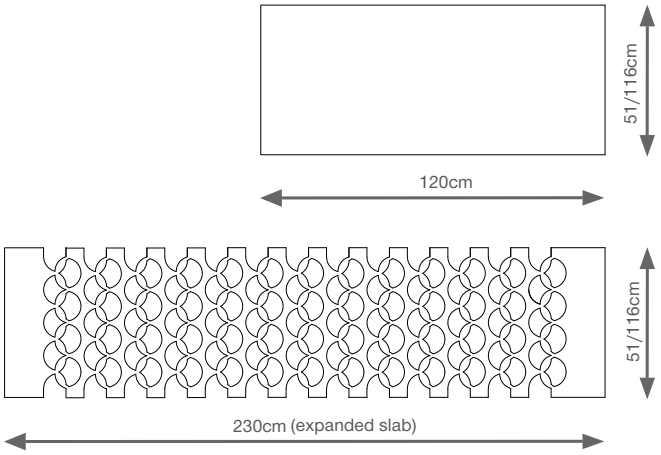
αcouCell-Expa: An innovative expandable acoustic panel with flexible perforated structure.



αcouCell-Expa

Description

αcouCell-Expa is a honeycomb foam, in a perforated slab form. Utilizing the malleability of AcouCell Slabs, we created a product with a patterned aesthetic.
The original AcouCell material has closed cells that are subsequently opened through partial perforation on both sides, which effectively traps sound and reduces the reverberation time, improving vocal clarity.



Main characteristics

The original material is a highly sound absorbing material that is washable and moisture resistant, fiber free and fire retardant.
Thanks to its smart cutting, the material has acquired and original look as well as the following characteristics:
- Increased flexibility of the material and the ability to create various 3D forms
- Significant increase of the effective sound absorbing capacity due to the increase of the surface area and the disclosure of perimeter surface parts.
- Increased effective surface area compared to its compact transferred form.

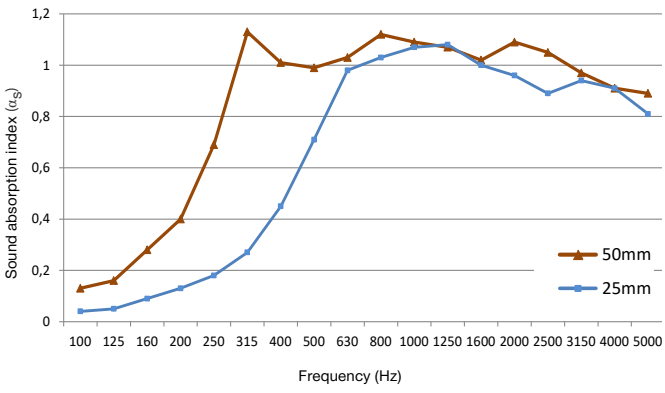
Dimensions: 116X120cm non-expanded slab, 116X230cm expanded or 51X120cm non-expanded slab, 51X230cm expanded
Thickness: 50mm standard
Color: Dark grey /White
Packing: 2 expandable slabs
Fire rating: According to DIN 4102:B1, EN 13501-1 (B, S2 d0)
Water resistance: Provides unaltered and sustained acoustic performance in wet or humid conditions.

Acoustic performance

The sound absorption index (α_S) according to ISO 354.2003 per square meter is presented in the diagram on the right. The weighted sound absorption coefficient (α_W) according to ISO 11654.1997 can be found in the following table:

Type: αcouCell	Weighted Sound Absorption Coefficient (α_W)	Sound Absorption Class
50mm	1	A
25mm	0.50	D

Tested by accredited laboratories.

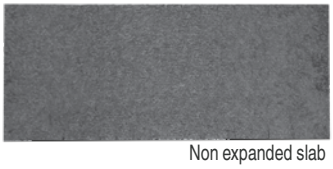


αcouCell #Expa

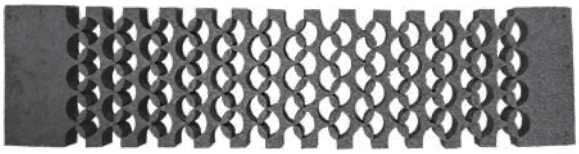
Honeycomb closed cell foam
HIGH SOUND ABSORPTION - EXPANDABLE SLAB

Expanded panel

αcouCell-Expa is designed to apply a smart perforation pattern. This pattern offers unique characteristics to the panel:
- Produces an original look
- Increases the sound absorbing area and the capacity of the panel
- Makes it flexible to create curves and 3D forms.
- It increases its maximum covered area per slab.



Non expanded slab



Expanded slab

Bended panel

The panels can be bended both in their closed and expanded form. Below are some ideas on applications of the panels in its bended/twisted form.

Twisted 3d form

Curved form

Installation method

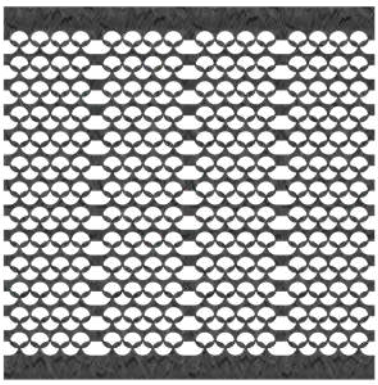
Due to the light weight and its self- supporting structure of the panels it is very easy to be installed on site.
The installation method depends on the application of the panels.
Each piece can be glued on the wall with magnetic spray adhesive (ask us for information) or nailed at the back side with headless nails.
To hang it from the ceiling in a curved or twisted form, a suitable metal rod should be used that will keep its dimensions and shape stable. The material can easily be pierced to pass the threaded rod with the necessary washer and nuts.

Typical applications

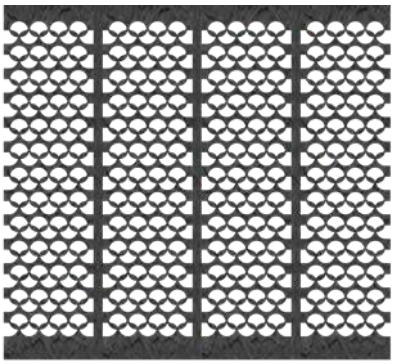
αcouCell-Expa can be used in a variety of projects even in spaces with high humidity. They can be attached to the wall or ceiling or take a variety of forms. They can even be attached around curved surfaces.

They are typically installed in home Theaters, Recording & Post Production Studios, Rehearsal Rooms, Conference Rooms, night clubs, bars, offices, meeting rooms, swimming pools, mechanical rooms, restaurants etc.

Bellow are some ideas on the shapes that can be created with the slabs



Slabs next to one another



Slabs with columns between them (any material)

Note: The information in this brochure is based on measurements and tests conducted honestly and objectively. This does not imply responsibility of the Company and may be subject to changes.

ALPHA ACOUSTIKI S.A. combines technical experience and scientific knowledge with its Engineering team, specialized in the field of room acoustics since 1980.

In TUNE with YOUR needs

Our technical department *(tech@alphacoustic.com)* would be happy to help you find the best acoustic solution for your project.

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