ALPHA ACOUSTIKI

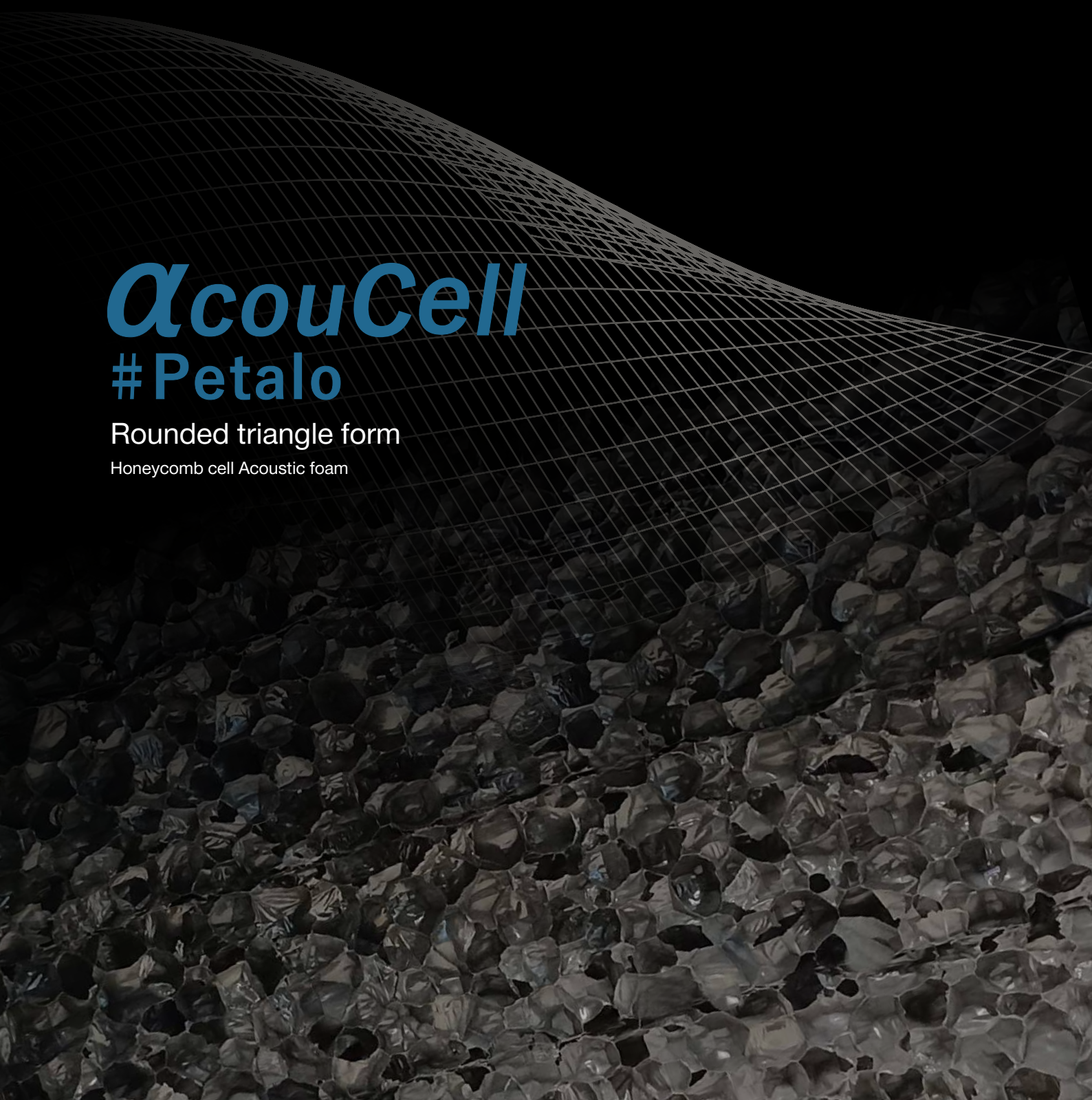
In TUNE with YOUR needs

αcouCell

#Petalo

Rounded triangle form

Honeycomb cell Acoustic foam



αcouCell
#Petalo

Honeycomb closed cell foam

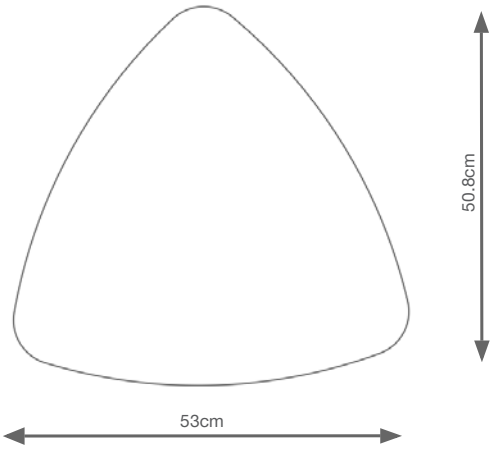
HIGH SOUND ABSORPTION - ROUNDED TRIANGLE FORM

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.

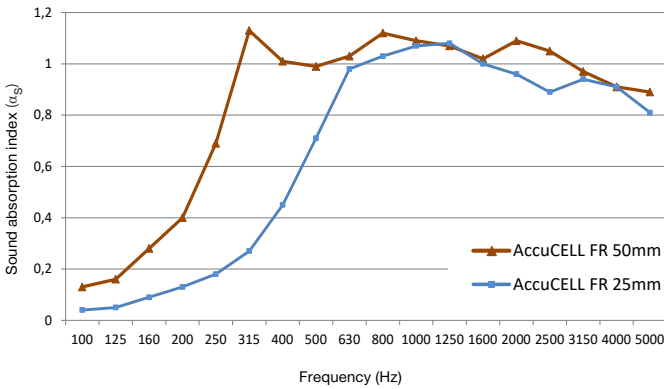
Dimensions: 53 x 50.8cm
Thickness: 50mm standard
Color: Dark grey standard /White on demand
Packing: Box of 6 pieces.
Fire rating: According to DIN 4102:B1, EN 13501-1 (B, S2 d0)
Water resistance: Provides unaltered and sustained acoustic performance in wet or humid conditions.

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.



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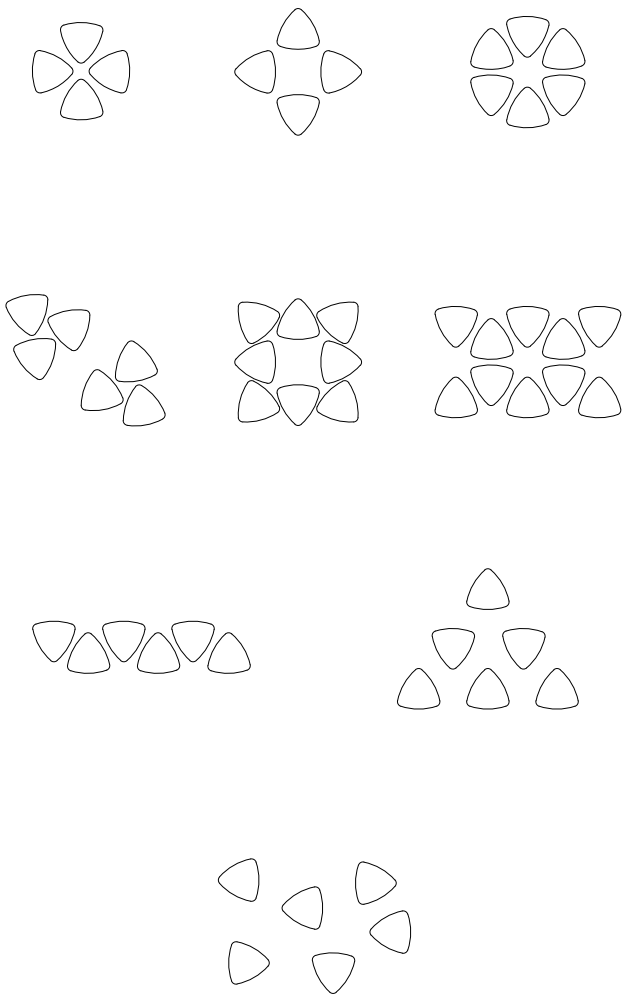
Typical applications

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 Theatres,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 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.

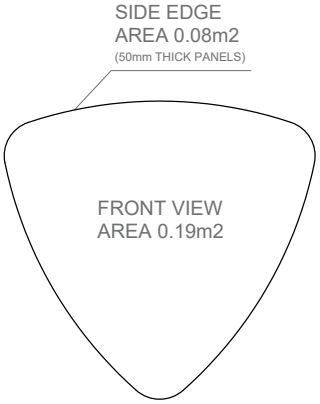
Alternatively, the following accessories can be used to hang the panels from the wall or ceiling. They are screwed in the panel by hand and form a hook for suspention.

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.

AcouCell
#Petalo Fabric

Honeycomb closed cell foam
HIGH SOUND ABSORPTION - ROUNDED TRIANGLE FORM

Fabric face petal shaped panels

AcouCell-Petalo is produced in its plain form and with a variety of fabric faces. Our Fabric 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 fabric, we offer more color options in order to satisfy the special requirements of each project.

The selection of the fabrics was actualised considering their acoustic transparency in order for the core material's acoustic performance to remain unchanged.

Petalo FM 01

The face material

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

The fabric 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 standaerd 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 fabrics, 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 fabric scans are not color accurate. Always request actual fabric samples, before ordering.

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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