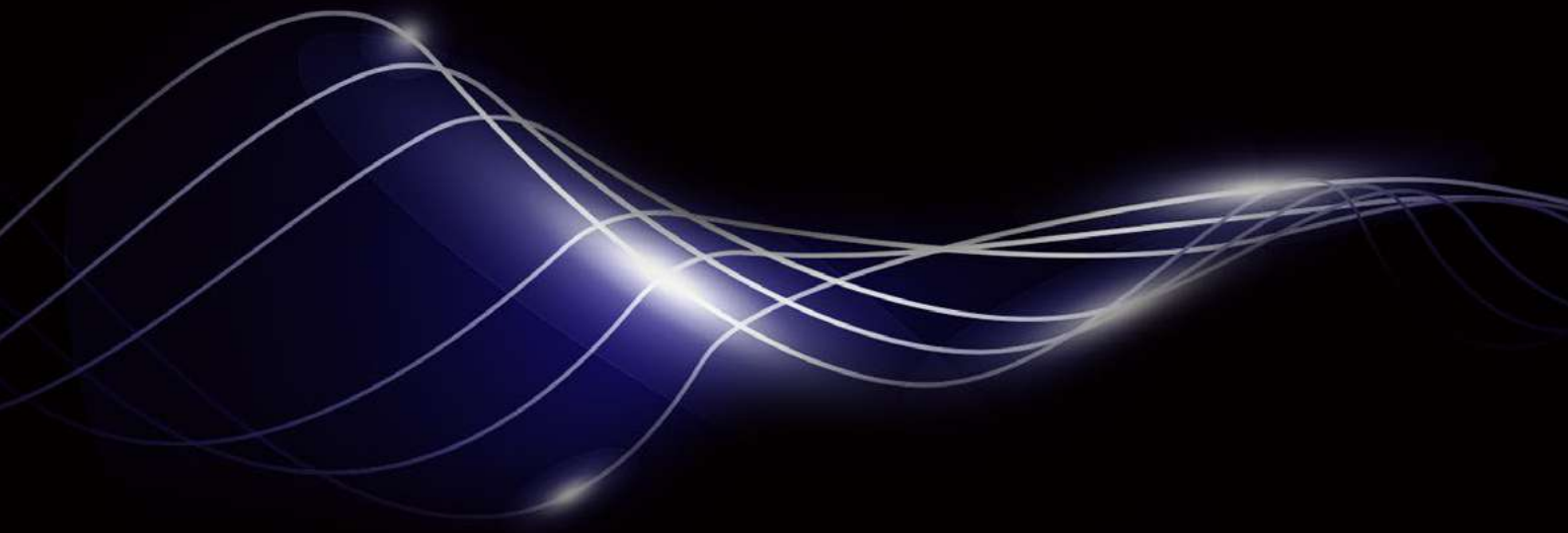
POLYFON

INNOVATIVE ACOUSTIC SOLUTIONS



ALPHA ACOUSTIKI

In TUNE with YOUR needs

*POLY*FON

INNOVATIVE ACOUSTIC SOLUTIONS

POLYFON products are innovative, polymorphic, broadband acoustic panels that combine Sound Absorption & Diffusion characteristics and vibration absorption in monitor speakers. It is created by integrating the long experience (since 1980) of the R&D department of our company and the extended scientific research on optimization of acoustic proprieties of foam products.

POLYFON products are made from polyurethane flexible foam slabs, with a sculpted design, that effectively absorbs the sound energy and reduces the reverberation time, flutter echo and standing waves.

POLYFON contributes in offering a unique and modern appearance in the room, that acoustic comfort is a valuable quality.

The technical information referred in this brochure come from measurements and tests made in good faith and objectivity.
This does not implies responsibility of the Company and may be subject to changes.
Design and production according to Quality Assurance System **ISO 9001.2008** & Environmental Management System **ISO 14001.2004.**

POLYFON S

Acoustic Slab

ABSORPTION
& DIFFUSION PROPERTIES

POLYFON-S Base

POLYFON-S with Diffuser Membrane insert

POLYFON-S : An innovative broadband acoustic slab that combines Sound Absorption & Diffusion characteristics.

It consists of the POLYFON-S Base and the Diffuser Membrane (DM).

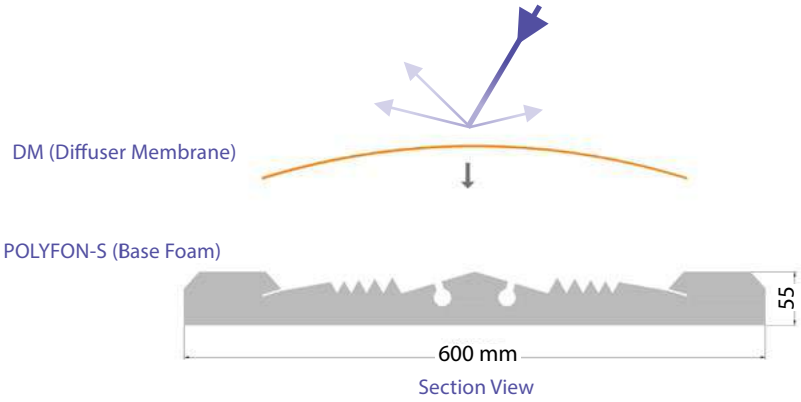
Description

POLYFON-S can be used in halls, in order to improve acoustics properties and reverberation time, thus assisting in reducing unwanted reflections, flutter echo and standing waves. It can improve the acoustic quality, prevent room modes and increase clarity. **POLYFON-S** Base, is polyurethane, flexible foam slab, with a sculpted design, that effectively absorbs the sound energy by dissipated it as heat in the foam cells. It contributes in offering a unique and modern appearance, in the room.
The DM element can be altered to suit any aesthetic requirement. Any artwork or high resolution picture can be printed on it's surface, in order to suit its aesthetic surroundings.
Installation on the wall, can be easily done with a staple gun or adequate glue.

• The DM part is a flexible Diffuser Membrane, with a smooth radius, which creates a 2D deflector, that effectively spreads high frequency reflections. A 3D acoustic diffusion is achieved, when the **POLYfon-S** panels are installed in 2 perpendiculars directions. Additionally the DM improves the low frequency absorption coefficient and it acts as a sound absorption membrane. The DM element can be either acrylic, plywood, HPL "formica" or others radius membranes.

It can be easily removed from the two lateral channels, which keep the membrane in tension. The polyurethane foam has self extinguishing characteristics, according to FMVSS 302.
Dimensions: 600x600x55 mm

Typical applications: Home Theatres, Recording & Post Production Studios, Rehearsal Rooms, Conference Rooms, etc.



Section View

Type POLYFON-S.55	Sound Absorption Coefficient (α_p) Frequency (Hz)						Weighted Sound Absorpion Coefficient (α_w)	Sound Absorption Class
	125	250	500	1000	2000	4000		
Foam Base with DM Insert	0.4	0.7	0.8	0.6	0.5	0.5	0.6 (L)	C
Base foam only	0.2	0.4	0.7	0.9	1	1	0.9	A

Sound absorption coefficients αp, according to ISO 11654:1997.

POLYFON Linear

Acoustic Linear Slab

SOUND ABSORPTION PROPERTIES

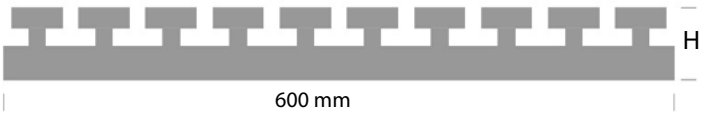
POLYFON-Linear : A unique acoustic slab with "T" profile pattern and linear appearance. It absorbs the sound energy and reduces the reverbaration time.

Description

POLYFON-Linear is a new look acoustic foam panel that can be used in halls, in order to improve acoustics properties and reverberation time, reducing the unwanted reflections, flutter echo and standing waves.
It can improve the acoustic quality, prevent the room modes and increase the clarity.
POLYFON-Linear contributes in offering a unique modern linear appearance, in the room.
Installation on the wall, can be easily done with a staple gun or adequate glue.

The polyurethane foam has self extinguishing characteristics, according to FMVSS 302.

Thickness H (max): 45 or 55 mm
Dimensions: 600 x 600 mm



POLYFON-Linear
Section View

Acoustic characteristics

Type	Sound Absorption Coefficient (α_p) *Frequency (Hz)*						Weighted Sound Absorpion Coefficient (α_w)	Sound Absorption Class
	125	*250*	*500*	*1000*	*2000*	*4000*		
POLYFON-**Linear.45**	0.1	0.2	0.55	0.9	0.8	0.7	0.8	B
POLYFON-**Linear.55**	0.15	0.3	0.65	1	1	0.95	0.9	A

Sound absorption coefficients αp, according to ISO 11654:1997.

POLYFON Wedge

Acoustic Foam panel with Wedges

SOUND ABSORPTION PROPERTIES

POLYFON-Wedge : An innovative broadband acoustic foam panel, with wedges form, offer high Sound Absorption characteristics. It absorbs the sound energy and reduces the Reverberation time.

Description

POLYFON-Wedge can be used in halls, in order to improve acoustic properties and reverberation time, thus assisting in reducing unwanted reflections, flutter echo and standing waves. It can improve the acoustic quality, prevent the room modes and increase the clarity.

POLYFON-Wedge contributes in offering a unique and modern appearance in the room.

Installation on the wall can be easily done with a staple gun or adequate glue.

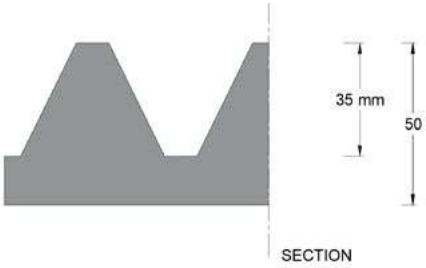
POLYFON-Wedge is a flexible foam panel, made of polyurethane, with semi-closed cells and a wedge design, that effectively absorbs the sound energy and reduces the reverberation time. The acoustic energy is dissipated as heat in the foam cells.

Appropriate advanced technological cutting machine is used in order to cut foam

Thickness (Max):	50 mm
Dimensions:	300 X 300 mm (other thicknesses and dimensions upon request).
Color:	Dark Grey / Anthracite.
Fire Resistance:	SE (MVSS 302) Self-extinguishing.
Characteristics:	High sound absorption foam, uniform porous structure. Reduces excess sound reflection, Reverberation time, improving vocal clarity.

Typical applications:

Home Theatres, Recording & Post Production Studios, Rehearsal Rooms, Conference Rooms, night clubs etc.



Acoustic characteristics

Type	Sound Absorption Coefficient (α_p) Frequency (Hz)						Weighted Sound Absorpion Coefficient (α_w)	Sound Absorption Class
	125	250	500	1000	2000	4000		
POLYFON-Wedge	0.2	0.4	0.7	0.9	1	1	0.9	A

Sound absorption coefficients αp, according to ISO 11654:1997.

POLYFON WS

Acoustic Slotted Panel

SOUND ABSORPTION PROPERTIES

POLYFON-WS : A unique design of linear slotted acoustic panel, with wooden appearance.

Description

POLYFON-WS is a new stylish acoustic wooden slot appearance panel with foam attached to the back side of the panel. It can be used in halls, in order to improve acoustics properties and reverberation time, reducing the unwanted reflections, flutter echo and standing waves as well as enhancing them aesthetically. It combines absorption with diffusion and it can improve the acoustic quality, prevent the room modes and increase the clarity.

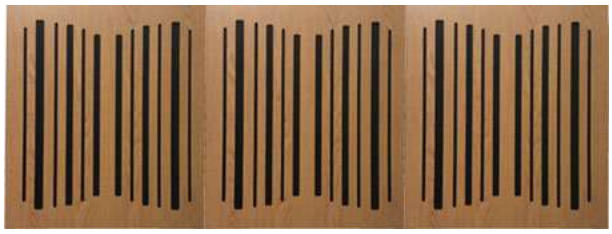
POLYFON-WS contributes in offering absorption in a variety of frequencies due to a range of different sizes of linear slots on each panel.
Installation on the wall, can be easily done with adequate glue, or using a system of four Hook-and-loop fasteners type Velcro® in the corners of each panel .
It can also be adapted in traditional false ceiling system with aluminium T profile (dimension 60 x 60 cm).

The standard version of external visible surface of POLYFON - WS can be covered with melamine MDF oak wood imitation, offering superior aesthetic design.

Other colors and wood imitations are available upon request.

The polyurethane foam on the back of the panel is a semi-open cells foam anthracite color with self extinguishing characteristics, according to FMVSS 302.

Thickness H : 33 & 53 mm
Dimensions: 595 x 595 mm



POLYFON - W S
with oak wooden melamine appearance
-orizontal instalation

Acoustic characteristics

Type	Sound Absorption Coefficient (α_p) *Frequency (Hz)*						Weighted Sound Absorpion Coefficient (α_w)	Sound Absorption Class
	125	*250*	*500*	*1000*	*2000*	*4000*		
POLYFON-**WS.30**	0.1	0.2	0.5	0.9	0.8	0.7	0.8	B
POLYFON-**WS.50**	0.15	0.35	0.65	1.0	0.9	0.95	0.9	A

Sound absorption coefficients αp, according to ISO 11654:1997.

POLYFON BT

Bass Trap Acoustic Panel

LOW FREQUENCY ABSORPTION
& DIFFUSION PROPERTIES

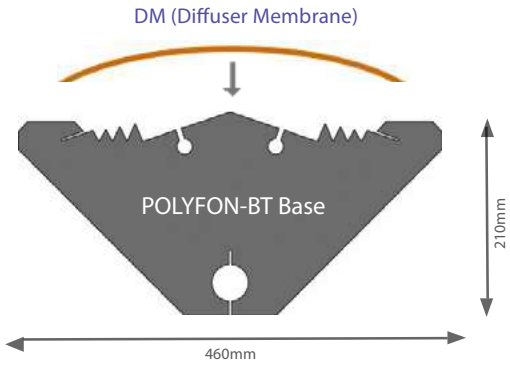
POLYFON-BT is an innovative broadband acoustic Bass Trap panel that combines Sound Absorption & Diffusion characteristics.

Description

POLYFON-BT Base, is polyurethane, flexible foam, corner type panel, with a sculpted design, that effectively absorbs the sound energy and reduces the reverberation time.
The addition of cavities (like Helmholtz resonators) offers maximum sound absorption efficiency. Foam triangular-shaped bass traps **POLYFON-BT**, are a cost effective solution for a reliable sound absorption. It can be installed into room corners and/or wall or ceiling junction, to provide significant low frequency sound absorption.
The acoustic energy is dissipated as heat in the foam cells.
Utilizing the depth of the corner, with foam material of some significant thickness, is more effective also in mid and low (bass) absorption frequencies, than the flat mounted acoustic foam which rarely has the thickness of BT.

Dimensions: 600 (H) x 210 x 460 mm
Color: Dark grey.
Packing: Box of 2 pieces.
Reaction to fire: SE according to FMVSS302.

The Diffuser Membrane (DM) is a flexible membrane, with a smooth radius, which creates a 2D deflector that effectively spreads high frequency reflections. Additionally, the DM improves the low frequency absorption coefficient; it acts as a sound absorption membrane. The DM element can be either acrylic, plywood, HPL "formica" or others radius membranes.
It can be easily removed from the two lateral channels, which keep the membrane in tension.



Section View

Design Patent Pending.

Type: POLYFON-BT	Practical Sound Absorption Coefficient (α_p)						Weighted Sound Absorption Coefficient (α_w)	Sound Absorption Class
	Frequency (Hz)							
	125	*250*	*500*	*1000*	*2000*	*4000*		
POLYFON-BT.600	0.7	0.8	0.85	0.95	0.9	0.95	0.95	A

Sound absorption coefficients αp, according to ISO 11654:1997.

POLYFON-BT with DM suspended from ceiling

Applications

POLYFON-BT can be used in the corners of a room or it can be suspended from the ceiling. Its use improves the reverberation time, reduces flutter echo and standing waves, prevents the room modes and increases the voice clarity. The POLYFON - BT is especially useful to trap the bass audible frequencies which are more intense at the intersection of flat surfaces.

The DM element can be easily altered to suit any aesthetic need. Any artwork or high resolution picture can be printed on its surface, in order to suit its aesthetic surroundings.

Installation on the wall can be easily done with adequate glue or using an appropriate tube adapted to the suitable configuration/ incisors on its back side.

Typical applications:

Home Theatres, Recording & Post Production Studios,
Rehearsal Rooms, Conference Rooms, multipurpose hall etc.

POLYFON KiON

Round Trap Acoustic Object

WIDE FREQUENCY
ABSORPTION

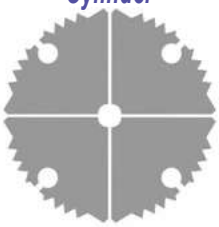

POLYFON-KiON

POLYFON-KiON : An innovative acoustic Round Trap, cylinder type object, that offers high Sound Absorption characteristics in a broad band frequency range.

Quarter

Semi cylinder

Cylinder



Description

• **POLYFON-KiON** is produced by polyurethane flexible foam, with a sculpted design, that effectively absorbs the sound energy and reduces reverberation time.

It consists of 4 quadrants (of 90 degrees angle). They may be delivered either 4 quadrants bonded together or on their own, as independent parts.

The addition of cavities (like Helmholtz resonators) offers additional sound absorption.

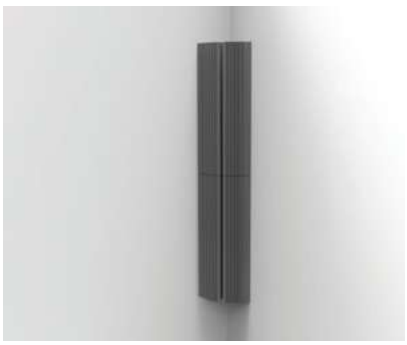
The acoustic energy is dissipated as heat in the foam cells.
The triangular-shaped quarters of the round trap, are a cost effective solution for a reliable bass trap sound absorption.
The semi cylindrical shaped traps can be installed at the lateral walls, with a space in between.

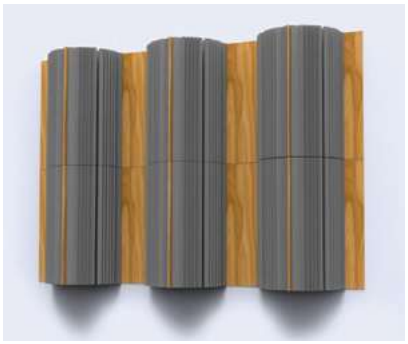
The **POLYFON-KiON** Round Trap/cylinder, can be suspended from the ceiling, or stand on the floor, like a column.

• Fins may be added between the quarters for better aesthetic result. These fins / flaps can be made either of wooden elements, or acrylic sheets in different colors.

Color: Dark grey
Reaction to fire: SE according to FMVSS302.
Dimensions: 600x400 mm (H x D)
Packing: Carton box with 8 quarters (2 Round Traps).


POLYFON-KiON
hanging from ceiling, with wooden fins.


POLYFON-KiON
quarter at the corner as a Bass Trap


POLYFON-KiON "semi cylinder"
with wooden fins, wall applications

Type:	Practical Sound Absorption Coefficient (α_p)						Weighted Sound Absorption Coefficient (α_w)	Sound Absorption Class
	Frequency (Hz)							
	125	*250*	*500*	*1000*	*2000*	*4000*		
POLYFON-KiON	0.8	0.95	0.95	1	1	1	1	A

Sound absorption coefficients αp, according to ISO 11654:1997.

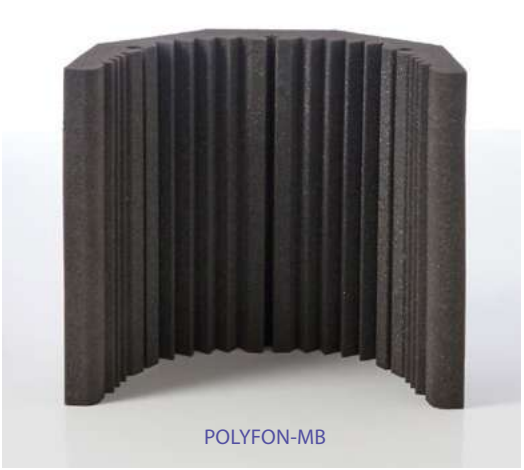
Design Patent Pending.

POLYFON MB

Microphone Acoustic Barrier

SOUND ABSORPTION PROPERTIES

POLYFON-MB : A portable acoustic Barrier, offering useful Reverberation and Noise attenuation around a recording microphone.



POLYFON-MB

POLYFON-MB.M

Description

POLYFON-MB offers 'dry' and direct vocal recordings, with reduced room ambience and external noise. This helps to eliminate excess echo and reverb, allowing the reintroduction of equalization during mixing or post-production processing.
It is easily applicable in most types of microphone stands and clips offering an acoustic reflection filter, that regulate the reverberation without excessive coloration of the wanted signal.
Its polyurethane cell structure is designed to give maximum sound absorption efficiency, thus transforming the acoustic energy to heat in the foam cells.
The specially molded design and the addition of cavities (like Helmholtz resonators) offer maximum sound absorption efficiency.
The polyurethane foam has self extinguishing characteristics, according to FMVSS 302.

POLYFON-MB.M
External anodized
Aluminium Metal Cover

Dimensions: External Diameter 45 cm, high 40 cm (in a polygon shape)
Color: Dark grey

Applications

POLYFON-MB is especially useful in studios without proper acoustic treatment or in rehearsal studios in order to prevent exterior noise such as traffic noise or air conditioning entering into the mic.

It can be used with a range of microphones and can be fitted very easily without any special equipment.
The adjustable metal mounting system in black color, is designed to be installed at the same stand as a normal vocal mic.

Additional Versions with external covers :

POLYFON-MB.M: An aluminium metal cover can be added to the exterior surface in different colors or also in timber texture.

The external noise barriers offer additional soundproofing from unwanted noise and also an attractive aesthetic result.

POLYFON FP

Foam Pad Loudspeaker's Isolation

ANTi VIBRATION PROPERTIES

POLYFON-FP is an anti vibration Foam Pad (FP), for near field monitor speakers. It consists of two elements, the base part and the upper wedge.

POLYFON-FP

Description

This specially design foam pad, improves the sound from the monitors, by preventing the transmission of acoustic energy from speakers to the underlying desk.
POLYFON-FP is produced by high quality, flame retardant, dark grey, polyurethane foam.

Technical Specifications

POLYFON-FP packing is composed by 4 pad sets, 2 for every monitor. Each set is equipped with a base and a wedge part, in order for the POLYFON - FP to be adjusted in many types of monitors (heavy / large or vertical / horizontal applications). The use of only one piece may be sufficient for small monitors.

The combinations of the base part and the upper wedge, allows five speaker positioning angles (0°, ±4°, ±8°).
In standard position, a level surface will be provided (0°) which is parallel to the supporting surface. Alternatively, the wedge can be removed in order to provide a 4° inclination. This is can be done in order to suit any position the base pad may be resting in.

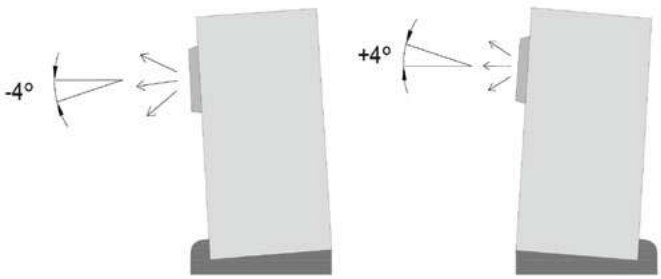
In addition, if the base and wedge are positioned upside down, it will result in a 8° inclination.

Max load capacity: 15 kg/pad
The load must cover all the active surface.

Dimensions: 300 x 120 x 50 mm
Other dimensions on request.

POLYFON-FP application

MONITOR WITH DIFFERENT LISTENING ANGLES



DIFFERENT INCLINATION ANGLES

Side View Profile

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In TUNE with YOUR needs

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