

***silent*PET[®]**
R e c y c l i n g A c o u s t i c

Bringing calm to your rooms...



Interfinish UK Ltd



Conserves raw materials and respects the environment

Made from recycled PET and textiles

Acoustic elements made from recycled PET- and Textiles

SilentPET® Home & Office

Provides a pleasant atmosphere and reduces noise. Ideal for living areas, offices, health studios, hotels, restaurants and wherever aesthetics are just as important as good room acoustics.

SilentPET® Print & Art

Acoustic elements printed with your favourite motif or with a hand-painted image of your choice. Sound-absorbing, stylish artwork that can be mounted on the ceiling or the wall.

SilentPET® Wall

SilentPET® wall elements are integrated directly into the system wall and provide the best in room acoustics as well as being an ideal space-saving alternative in offices and other areas.

SilentPET® Industry

Robust, shock-resistant designs for demanding industrial environments. Insensitive to moisture and with no tendency towards mould or parasite attacks.

SilentPET® ecology

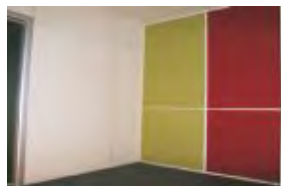
The use of recycled PET means that less CO₂ is emitted during production, while any wastage created is fed back into the production process.

SilentPET® data and facts

Product information and technical data about SilentPET® sound absorption, reverberation periods etc.

SilentPET® room acoustics

Why room acoustics have an influence on people's health and the economy of a business.

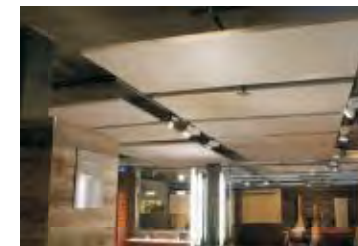


SilentPET® Home & Office

SilentPET® Home & Office acoustic elements have been specially designed to optimise room acoustics in office and living areas.

The acoustic and design elements can of course also be used in any other type of room. Whether it is used in a hotel, restaurant, shop, commercial area or health studio, SilentPET® improves the room acoustics and increases the comfort levels of any room.

«RECwhite»



The Home & Office RECwhite variety is primarily made up of sorted recycled PET bottles. The baseplate, which is highly efficient in acoustic terms, has a white core which has white felt cladding fitted as standard on one side and reflects the light pleasantly around the room.

The simple design and subtle surface of the Home & Office version make it easy to insert into any area and the ideal complement to any existing interior design.

«TEX»



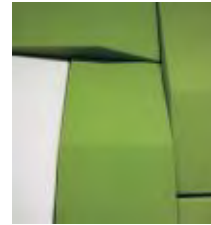
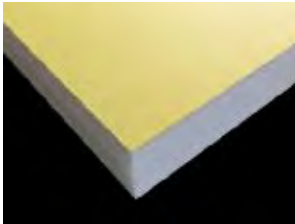
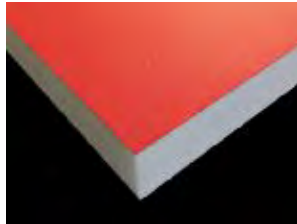
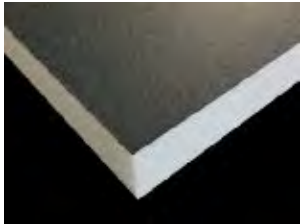
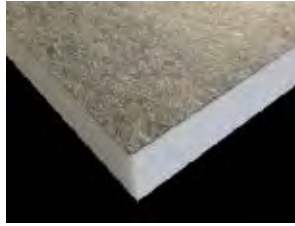
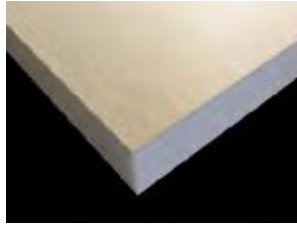
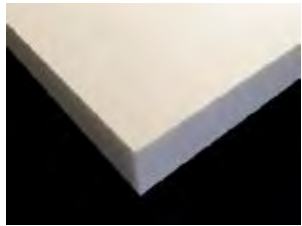
The Home & Office "TEX" version is also made out of recycled PET bottles but is combined with 40% fibres from recycled textiles taken from old clothing.

Advantages

- Provides excellent room acoustics
- Can also be assembled during normal operations
- Can be integrated into the design of the room
- Flexible types of assembly
- Available in a variety of colours and designs
- Environmentally-friendly production
- Causes no irritation of skin or airways

SilentPET® Home & Office

Colours and designs

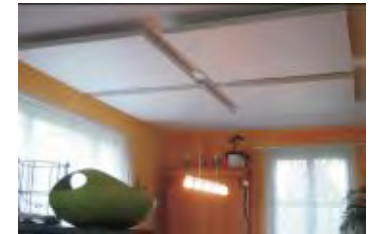


«Individual and imaginative acoustic elements»

SilentPET® Home & Office Acoustic elements are available with surfaces in a wide variety of colours. Our standard collection features the most commonly chosen shades with the shortest delivery times, while for special ideas or requirements, we have a more comprehensive collection of surfaces available.

2D forms can also be produced to customers' requirements up to a panel size of 120cm x 240cm, enabling you to create imaginative, tailor-made acoustic elements in special shapes including company logos. 3D forms are also possible.

«Wall and ceiling mounting»



SilentPET® elements are suitable for both wall and ceiling mounting, whilst lights can also be integrated in a wide variety of designs.

Direct mounting and a steel cable system with adjustable suspension heights are standard, enabling them to be adapted individually to conditions as well as to the customer's wishes.

SilentPET RECwhite



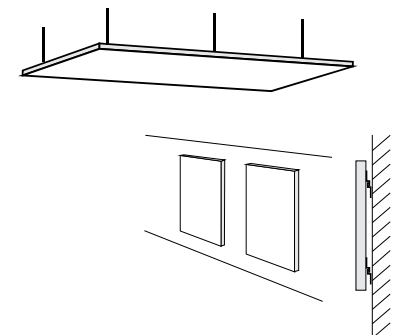
SilentPET TEX



An example of light mountings



«Clever design down to the last detail»



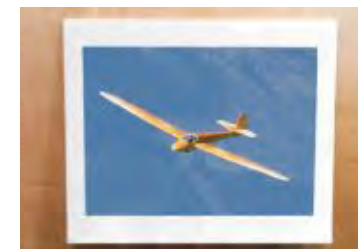
Ceiling and wall mounting systems have a sophisticated design enabling them to fit easily and discreetly into any room.

SilentPET® Print & Art

SilentPET® Print & Art combines art and acoustics all in one element, enabling sound-absorbing bodies to be built into a room whilst at the same time contributing to the optical effect with individual designs.

Print & Art acoustic panels can also be sprayed in RAL colours or given an imaginative airbrushed design.

«PRINT»



We use the latest in printing technology to give SilentPET® Print elements your favourite motif and your choice of design.

The acoustically effective image improves the room both visually and in terms of acoustics.

«ART»



SilentPET® Art was designed with art lovers in mind who have exclusive, demanding tastes and who appreciate the value of individuality and special design.

Our young, talented in-house artist Nancy will design a unique, personalised image based on your design requirements, painted by hand. You can discuss all the details of how your image should be designed, and Nancy will then create your own personal and exclusive work of art on a SilentPET® Art Element, based on your size, shape and design requirements.

Exclusive works of art as acoustic elements – unique, personal and individual. SilentPET® Art.

Printing, colouring and painting the acoustic panel may alter its sound absorption.

SilentPET® Wall

SilentPET® Wall acoustic panels are used in partition systems as acoustically effective or sound-absorbing wall surfaces. They are ideal for integrating into our Omega system partition as well as a host of other mobile partition systems.

Rooms can be set out with either entire wall surfaces or merely parts of surfaces fitted with SilentPET® Wall acoustic elements, providing pleasant room acoustics with good speech audibility.

«Variations»



SilentPET® Wall acoustic panels are also produced using recycled PET and textile fibres and are also available as "RECwhite", "TEX" and "Print&Art".

Unlike hanging ceiling elements, these integrated wall surfaces are only 15mm thick. Other thicknesses are available upon request, enabling the acoustic panels to be adapted to other system partitions.

«Print»



The same colours are obviously available for SilentPET® Wall as for Home & Office.

- Advantages**
- Provides excellent room acoustics
 - Directly integrated into the wall system
 - Available as an individual panel with aluminium frame
 - Space-saving mounting
 - Can be adapted to different wall systems
 - Can be used as a pin-wall
 - Environmentally-friendly production

SilentPET® Industry

SilentPET® Industry was designed for use in production facilities, warehouses, factory bays and other demanding areas. Its main characteristics are its high levels of impact resistance and robustness combined with an excellent noise absorption.

The acoustic elements are impervious to water and can therefore also be used in damp environments to optimise room acoustics.

«RECwhite»



The industrial version of SilentPET® RECwhite is also made out of sorted recycled PET bottles. The acoustic panels are white and have no special surface treatment.

The panels are highly impact-resistant and are therefore also ideal for use on ceilings and walls in production facilities, warehouses, workshops and other similarly demanding locations.

«TEX»



The SilentPET® Industry "TEX" version is made out of recycled PET bottles combined with 40% fibres from recycled textiles taken from old clothing. This gives the acoustic panel a grey, slightly mottled colour. This shade means that the "TEX" version will not stand out when used in areas with grey, exposed concrete.

Advantages

- Good room acoustics, reduces noise
- Very robust and impact-resistant
- Can be implemented in industrial areas
- Damp-resistant
- Suitable for ceiling and wall mounting
- Gives off no gases or emissions

SilentPET® Ecology

Using recycling for environmentally-friendly production



«100% processed»



SilentPET® elements are primarily made up of recycled PET bottles and also recycled textiles, depending on their design. During production, care is taken to use environmentally-friendly processes with minimal CO2 emissions. Thus even the waste that is created during production is fed completely back into the production process, further reducing the effect on our environment.

«Less CO2»



Not only is SilentPET® produced with a smaller CO2 footprint than many other acoustic materials, it can also be reused.

«no health problems»



SilentPET® raw materials conform to "Oeko-Tex® Standard 100 product class I" for baby products. The material is gentle on the skin and does not cause allergies, irritations or problems to airways. SilentPET® is odour-free and does not give off any gases or emissions. Furthermore, it is damp-resistant and has no tendency to mould or parasite attacks.

www.silentPET.com

SilentPET® Daten und Facts

Product overview

	SilentPET® Home & Office	SilentPET® Print & Art	SilentPET® Wall	SilentPET® Industry
Version «RECwhite» ¹⁾	X	X	X	X
Version «TEX» ²⁾	X		X	X
Surface	Felt, various colours	Thermally treated	Felt or thermal	Raw
Maximum size	1500 x 2400mm	1500 x 2400mm	1500 x 2400mm	1500 x 2400mm
2D-forms possible	X	X		X
Panel thickness	50mm	15mm / 50mm	15mm	50mm
Weight	2600g /m2	15mm: 1200g/m2 50mm: 2600g/m2	1200g /m2	2600g /m2
Temperature range	-30°C bis +80°C	-30°C bis +80°C	-30°C bis +80°C	-30°C bis +80°C
Damp resistant ³⁾		X	X	X
Emissions (SP Ref. F1 22842)	Odour-free, emits no gases	Odour-free, emits no gases	Odour-free, emits no gases	Odour-free, emits no gases
Fire rating	On request	On request	On request	On request
Contents	No noxious contents	No noxious contents	No noxious contents	No noxious contents

1) RECwhite composition: 60% recycled PET fibres, 40% bico fibers (fibre adhesives)

2) TEX composition: 40% recycled textile fibres, 20% recycled PET fibres, 40% bico fibers (fibre adhesives)

3) Applies to RECwhite versions without film surface

«Standard element sizes»

Home & Office	Print & Art	Wall	Industry
1200 x 1200mm	1200 x 1200 x 50mm	1180 x 2400mm	1200 x 1200mm
1200 x 2400mm	1200 x 1200 x 15mm	1180 x 1150mm	1200 x 2400mm
Ø 1200mm	Ø 1200mm x 50mm	1200 x 1200mm	

SilentPET® elements can also be produced to individual specifications based on customer requirements. Special shapes such as logos, figures and designs etc. can also be produced. 3D forms are also possible.

«Mounting»

SilentPET® acoustic elements can be mounted directly on ceilings or walls using a special aluminium mounting profile. For ceiling mountings we recommend where possible hanging using our elegant steel cable system, since this improves the acoustic effect. The ideal height for hanging is 200 – 500 mm. The elements can also be glued directly.

«Product care / cleaning»

SilentPET® elements do not usually require any special care. As is the case with any object in a room however, dust and dirt particles may build up on the surface over time. These can be removed using a vacuum cleaner or a duster. When using a vacuum cleaner, select the same setting as for curtains or similar textiles (i.e. low suction). Dirt flecks can be removed with a soft brush.

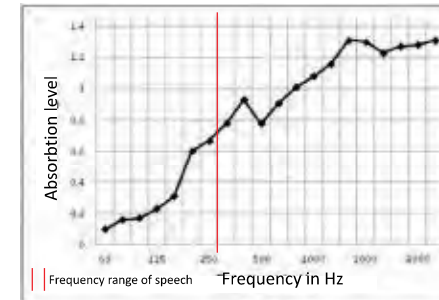


Excellent acoustic values

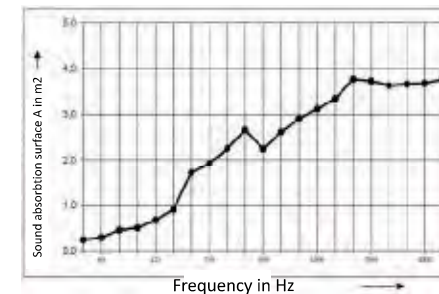
(tested using DIN EN ISO354/DIN EN ISO 11654)

«Sound absorbtion»

SilentPET® RECWhite, 300mm hanging height
1200x2400mm, 50mm, 2600gr/m2



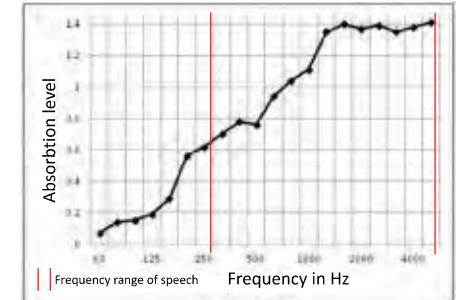
rated level of sound absorption: α_w 0.90



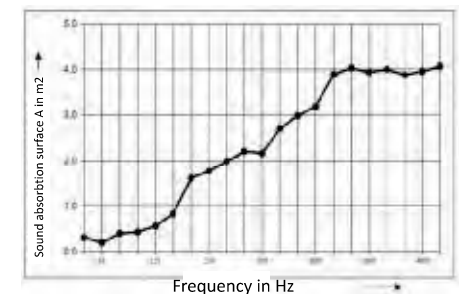
Equivalent sound absorbtion surface A in m2

Sound absorption class: A

SilentPET® RECWhite, 500mm hanging height
1200x2400mm, 50mm, 2600gr/m2



rated level of sound absorption: α_w 0.90



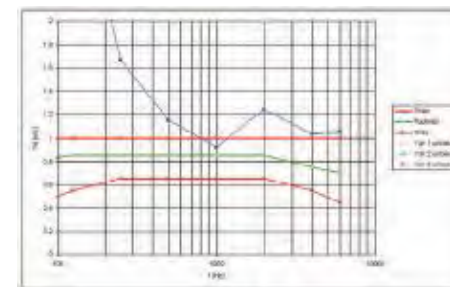
Equivalent sound absorbtion surface A in m2

Sound absorption class: A

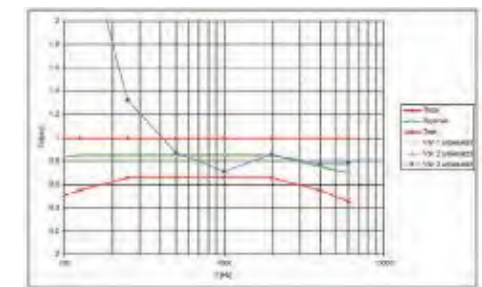
«Reverberation period»

Example of reverberation calculation of a room measuring 350m3

Without SilentPET®



With SilentPET®



Red: threshold value / Green: optimum value / Blue: calculated current reverberation time

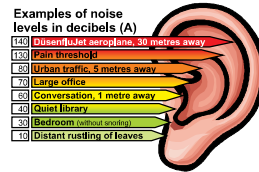
Room acoustic information

Noise - Stress - Health

«Noise every day, everywhere»

Every day, we are surrounded by a variety of noises. Some of these we are aware of, but for the most part we remain unaware since there were different levels of noise. This does not only occur outdoors either

workplaces, communal areas, restaurants and even our own living rooms are also increasingly becoming affected by poor room acoustics.



«The Lombard-Effect*»

Modern architecture and new building materials often have a negative influence on room acoustics. Large rooms with hard floors, ceilings and large window fronts create a long reverberation period. Noises remain in the room for a long time and are reflected from all sides (the echo effect). This reduces audibility of speech, conversations with customers, employees or neighbours become louder and more difficult and require significantly increased levels of concentration. The overall noise level in the room increases to unpleasant levels. At the workplace, additional noises are generated by computers, equipment,

machinery, air conditioning and other employees. The overall noise level builds up and establishes itself at a relatively high level.

Living areas with poor room acoustics also do not create a pleasant impression - instead they end up feeling cold and impersonal. As soon as more than two people start talking, a higher noise level is created and speech becomes more difficult to understand. Should there also be a radio or a television switched on in the background, the increased noise level begins to put people under stress.

*More information about the Lomboni Effect can be found on the Internet

«Poor room acoustics reduce the capacity for learning and productivity»

These various noise influences combined with the difficulty of understanding conversations put us under stress relatively quickly, meaning that we soon feel tired or even exhausted. While we may not be directly aware of this to begin with, sources of noise have a subliminal negative effect on our bodies. At the workplace, absences increase and productivity gradually begins to fall. Employees start to feel increasingly under stress and strain

and begin to take more and more time off work. Increased rates of employee turnover can even be attributed to this factor. Concentration levels in schools and training areas are also put under significant pressure by poor room acoustics which lead to insufficient levels of audibility of speech and increased noise levels. The pressure can have a very negative effect on mental performance and the ability to learn.

«Noise pollution damages your health»

Noise affects our health, and it is not just the actual noise level but also the timescale over which the noise has an effect on our hearing that is crucial. Even noises that work on a subliminal level and which are relatively low have a long-term influence on our health, and it is not just our hearing that is affected! Various studies show that noise also affects the nervous system across our entire bodies and can lead to any number of afflictions including headaches, insomnia, loss of

concentration, tinnitus and even raised blood pressure and an increased risk of heart attacks.

This is why it is of crucial importance that the room acoustics in areas where we spend a great deal of time be calm and pleasant. This applies not only to working areas but also communal areas such as restaurants, hotels and even our own living rooms at home.



The solution – good room acoustics

«An improved atmosphere with greater wellbeing»

Areas with good room acoustics provide greater wellbeing and reduce the stress factor created by noise. Improved levels of voice audibility mean that the noise levels of conversations are significantly lowered and noise emissions from office equipment, air conditioning and from other people are noticeably reduced. The result is that the area becomes a nicer place to be. Lounges, restaurants and

communal areas once again become places to relax, even when a number of people are in the room. Working areas have less of a sense of stress and have a pleasantly calming effect on people. The atmosphere among teams becomes less hectic and tense, and even discussions with customers can be positively influenced by a pleasant ambience.



«The right acoustics»

It is not simply a matter of the problem being solved by having as many sound-deadening materials in one place, however. Too much of a good thing can also have a negative effect on an area, since rooms can be designed to have reverberation periods of totally different lengths, depending on their usage. Musicians in their practice rooms and actors in theatres need different acoustics from a speaker in a classroom or a company department in a meeting room. What is ideal in terms of reverberation periods for communicating in a shop or office is not the same as feeling at home in one's living room. Depending on usage,

reverberation periods may also need to be optimised in terms of the frequency range (tone pitch).

For everyday use in offices, communal areas and living spaces, it is relatively simple to calculate the reverberation period, or those with corresponding experience in the domain can apply previously used values. For environments which are a little more demanding, such as music rooms, theatres or auditoriums however, it is highly recommended to bring in a trained acoustician who can evaluate the room using the necessary measuring tools.



«SilentPET® - for the best in room acoustics»

The reverberation period in a room can be significantly reduced by the implementation of our acoustically efficient SilentPET® products and brought down to a pleasant level. Optimum reverberations periods which are adapted to the needs of the room improve the atmosphere and the audibility of speech, making communication easier and reducing the stress factor. This also has a very positive effect on productivity and general efficiency in workspaces.

In living spaces, people feel more at ease and relaxed. Various different versions of our SilentPET® products are available which can not only provide the right reverberation period for your room but also make it more attractive visually.

SilentPET® can either be a modern and eye-catching addition to room design or discreet and unobtrusive.

www.silentPET.com





Environmentally friendly production
Manufactured using recycled PET and textiles

Your specialist for SilentPET[®] acoustic elements:

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