

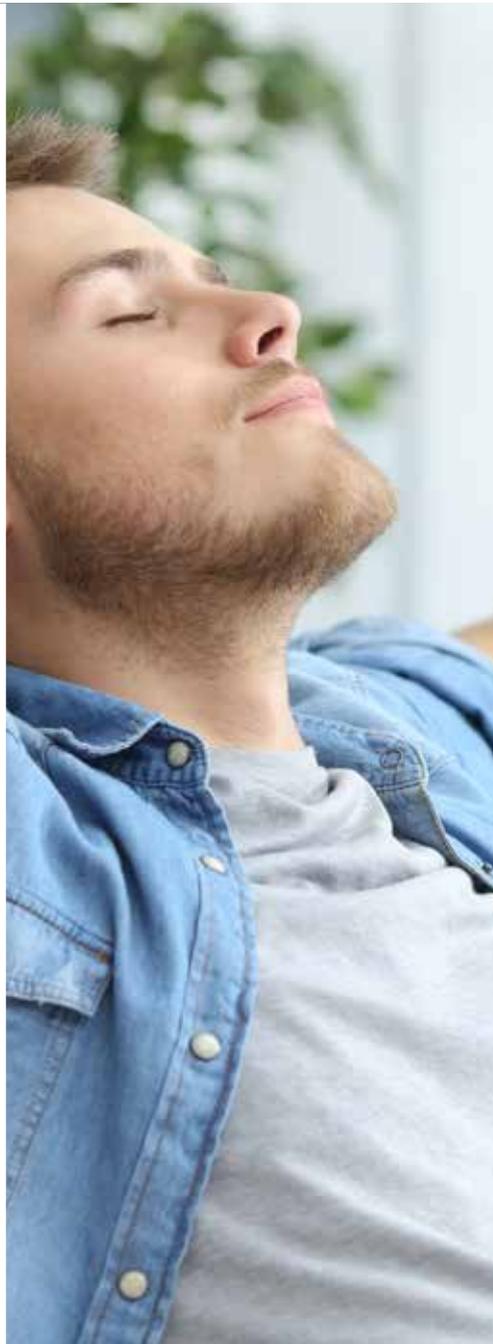
FLEXIBLE SOUND ATTENUATION SOLUTIONS

ArmaComfort[®]

Our pioneering spirit has always been part of Armacell's DNA. Well-known for our flexible thermal insulation, we have now launched best-in-class sound attenuation technology. Our new ArmaComfort Barriers significantly reduce disturbing noise to provide environmentally friendly, visible or invisible sound attenuation – halogen- and bitumen-free.

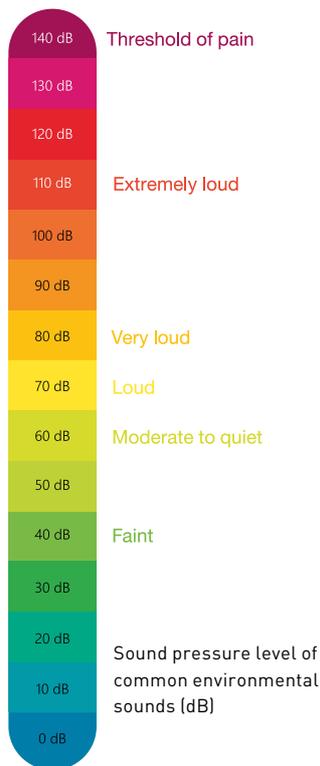
ArmaComfort. For the comfort of silence.

www.armacell.eu



 **armacell**[®]
ArmaComfort

IT'S A NOISY WORLD. HIGH TIME TO REDUCE DISTURBING SOUNDS



Noise is increasingly affecting our life. Whether at work, in public buildings, outdoors or at home – we are all exposed to noise. In working environments, acoustic insulation is essential to ensure effective communication and employees' wellbeing. Sound insulation solutions are key to raise productivity.

As cities grow and evolve, people seek to find quiet in their homes. Acoustic insulation in buildings means ease and comfort, as well as privacy, intimacy and a sense of security. The increasing appreciation of private living space is reflected in higher demands. Nowadays, tenants and buyers expect enhanced noise control.

REGULATING NOISE

To protect people from the adverse impacts of noise and preserve their health, the EU Environmental Noise Directive (Directive 2002/49/EC) requires its member states to develop noise management action plans. The risks related to noise exposure at work are defined in EU Directive 2003/10/EC.

In most European countries, building regulations specify sound insulation requirements for dwellings. The requirements and classifications differ widely, both in terms of the quality of the acoustic insulation and the descriptors used. During the last few years, several European countries have implemented or proposed stricter requirements.

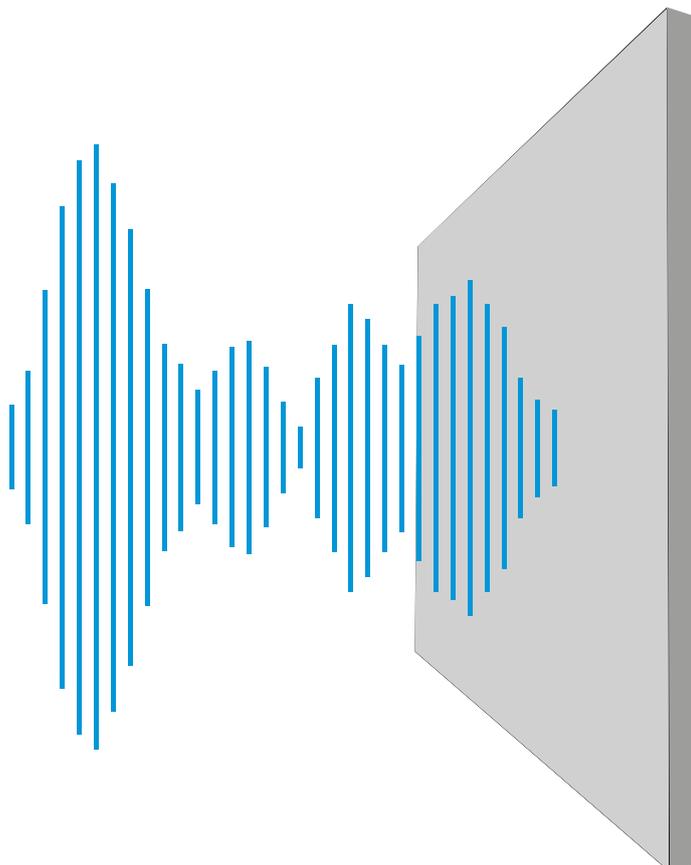


ADDRESSING NOISE POLLUTION

There are economical and easy-to-install solutions to noise challenges in buildings. The easiest way to a quiet and comfortable environment is to reduce the sound with a heavy material that resists the transmission of sound waves. Put simply, the sound transmission will decrease when mass is added between the source of the sound and its receiver.



FOR
94%
EFFECTIVE NOISE
CONTROL
IS KEY*



SOUND TRANSMISSION LOSS

A material's noise reduction performance can be defined as its ability to reduce the sound passing through it. The key value is the Weighted Sound Reduction Index (Rw in dB). It is a single number rating of airborne sound insulation between rooms, over a range of frequencies. The denser and more impervious a material, the better it blocks or reduces sound transmission from one room to another.



ENJOY THE COMFORT OF SILENCE

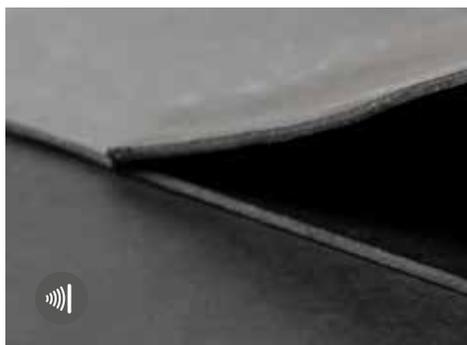
Armacell's acoustic comfort solutions bring more quality of life to urban residents and commuters. They improve health and safety in the workplace by reducing noise. Creating quiet zones and noise corridors can reduce the harmful impact of noise exposure – in buildings, industrial environments and vehicles. ArmaComfort noise barriers offer superior acoustic transmission reduction. This new sound attenuation technology allows you to add mass to walls and mechanical equipment without losing space – invisible in constructions or visible on existing partitions. Our flexible EVA/EPM sheets are designed to meet the main requirements for construction, transport and industrial applications.

Armacell. Making a difference around the world.



SOUND PROTECTION

Discover Armacell's two new faces of silence: a black acoustic barrier for hidden applications in wall, ceiling and HVAC constructions; and a pearly-white sheet for visually appealing ad-hoc solutions. ArmaComfort. For the comfort of silence.



// ArmaComfort Barrier B

High-performance, mass-loaded noise barrier in black for hidden applications in wall, ceiling and HVAC constructions.



// ArmaComfort Barrier P

Visually attractive, high-performance, mass-loaded noise barrier for sound-proofing existing partitions, air ducts and cabins.

Our premium self-adhesive solutions are B-s2,d0 classified, IMO-tested and tested according to UL94. They can be painted over with water-based acrylic products.*



SELF-ADHESIVE

Fast, easy and clean: ArmaComfort Barriers are self-adhesive. Just peel off the backing and glue the sound barrier to the dry, dust-free surface.** Hassle- and solvent-free.



THICKNESSES

ArmaComfort Barrier P is available in thicknesses of 1, 2, 3, 4 and 5 mm. ArmaComfort Barrier B is offered in wall thicknesses of 2, 3 and 4 mm.



ARMACOMFORT BARRIER B ALU

This aluminium-foil-faced barrier achieves the highest fire rating (B-s1,d0) for organic products. The durable and tear-resistant covering combines an attractive silver-look surface with easy-to-clean protection in industrial environments.

BLE

* Please contact our technical service to check the compatibility of the desired coating.

** Do not attach any additional weight (e.g. furniture, television, mirror etc.) to the sound barrier.

Please check and study the ArmaComfort Barrier application guidelines before commencing with the installation.

BEST-IN-CLASS SOUND ATTENUATION TECHNOLOGY

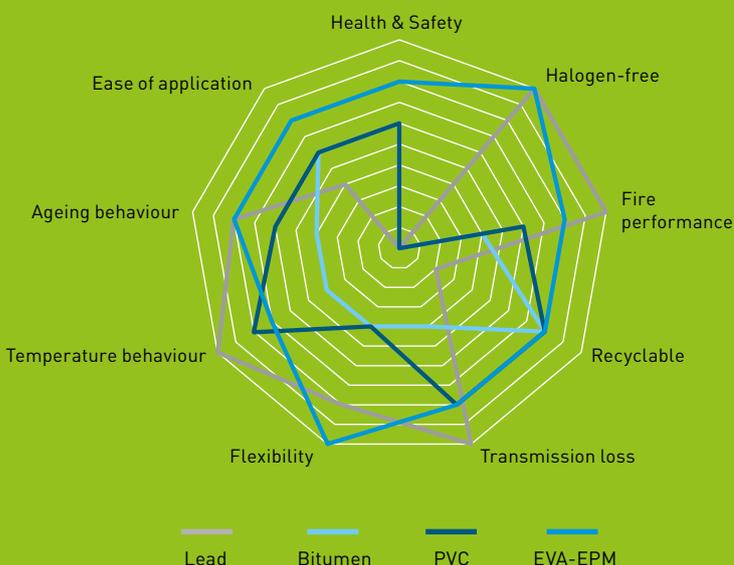
»OUR PIONEERING SPIRIT HAS ALWAYS BEEN PART OF ARMACELL'S DNA«

OUR LATEST INNOVATION: LEADING SOUND ATTENUATION TECHNOLOGY

Sound insulation has come a long way. In the early days, sheet lead was considered an ideal soundproofing material due to its high density and low stiffness. It was used to manufacture sound walls and other noise abatement constructions for decades. Today, we know that lead has a neurotoxic effect and is stored in the bones. It is also suspected of being carcinogenic and its widespread use has made lead the world's most devastating environmental toxin.



COMPARISON OF SOUND BARRIER MATERIALS



It was replaced by bitumen, which was used in the form of cardboard or heavy foil, but also as hot bitumen. Not only is this material user-unfriendly to apply, the results are unsatisfactory due to its temperature sensitivity and poor ageing behaviour. It can crack in the cold, melt in the heat and shows creep behaviour under additional mechanical stress, an irreversible plastic deformation also known as retardation.

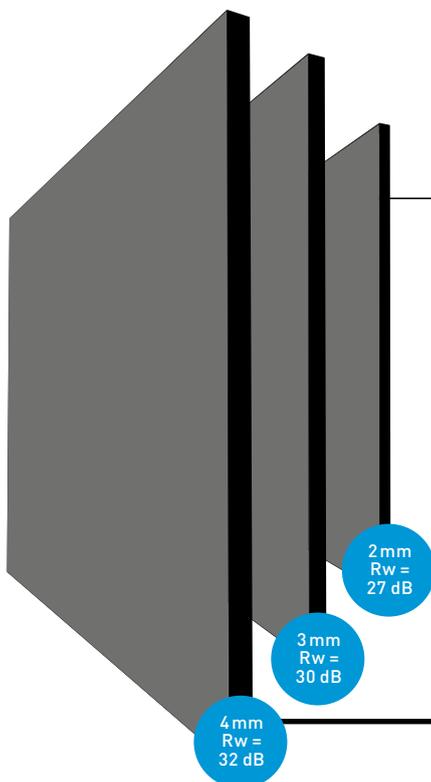
Noise barriers based on PVC, on the other hand, are not flexible. They contain halogens that develop a high smoke density in a fire and can release corrosive or toxic gases.

BASED ON A UNIQUE EVA/EPM BLEND, ARMACOMFORT BARRIERS OFFER AN IDEAL COMBINATION OF TECHNICAL AND MECHANICAL PROPERTIES AND ARE EASY TO INSTALL.

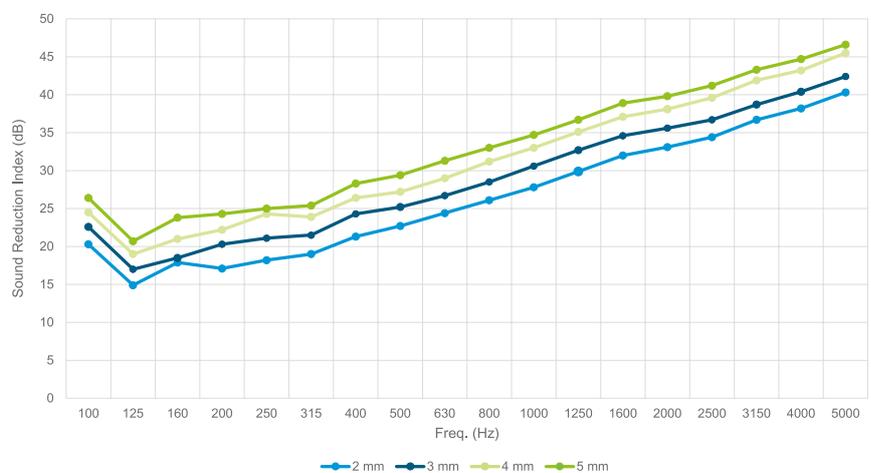


- // Superior transmission loss performance with ultrathin thicknesses
- // Flexible, bendable, easy to cut, no additional framework necessary
- // Flame retardant, low smoke, no burning droplets
- // Halogen-, phosphate-, bitumen- and lead-free and recyclable
- // Rot proof, durable and resistant to most chemicals
- // Suitable for new and retrofit applications

»The human ear perceives a reduction of 10 dB as halving the volume.«



SOUND TRANSMISSION LOSS OF ARMACOMFORT BARRIERS



ArmaComfort Barriers offer exceptional sound transmission loss properties across a broad frequency range.

EXPLORE A MULTITUDE OF WAYS TO REDUCE DISTURBING NOISE WITH JUST ONE PRODUCT SOLUTION. ARMACOMFORT BARRIERS OFFER SUPERIOR ACOUSTIC PERFORMANCE. VISIBLE  OR INVISIBLE .



PROTECTION SCREEN

Air-conditioning compressors, heating pumps and plant rooms can cause unacceptable noise levels in buildings. In industrial environments generators, pumps, printing machines or other heavy equipment can induce hearing loss and endanger the health and safety of staff. Enclosures, protection screens, mobile partitions or fences can all be easily fabricated with ArmaComfort Barriers.



CEILING PLENUM

When sound travels along elements shared by adjacent structures, flanking noise transmission occurs. Flanking noise can easily exceed direct transmission and the performance gained from acoustic barriers can be entirely lost. Fitted in the plenum space above suspended ceilings and partition walls, ArmaComfort Barriers minimise flanking noise.*

 INVISIBLE

 VISIBLE



REFURBISHED PARTITION

An easy, space-saving and cost-effective way to achieve a much improved acoustic performance in residential and non-residential premises: The visually attractive self-adhesive ArmaComfort Barrier P sheets can simply be glued to existing walls and provide highly improved sound control within a few hours.* To check the compatibility of a desired coating please contact our technical service.

CABIN

The noise in factory halls or machine rooms often exceeds acceptable levels and can impair the communication and concentration of staff. With ArmaComfort Barriers you can easily convert meeting or control rooms into soundproof cabins and thus create a quiet, safe and comfortable workplace.



NEW PARTITION

Changes in construction practice have led to an increased use of lightweight components in modern buildings. As the low-mass materials offer poor sound transmission loss, noise can easily travel through walls and floors. Fitted between plasterboard walls, ArmaComfort Barriers greatly reduce the sound transmission and improve the performance at critical frequencies generated from adjacent rooms and environmental noise.



HVAC

HVAC systems create and carry noise from one room to another. If not acoustically treated, pipe- and ductwork act as a path sound travels along, throughout buildings. Noise from fans and motors is transmitted through ducts and grilles whistle or rattle. With ArmaComfort Barriers the transmission loss of pipes and ducts can be greatly improved and breakout noise minimised.

* Local fire regulations (e.g. firewalls) have to be observed.

ARMACOMFORT. FOR THE COMFORT OF SILENCE.

Reduce disturbing noise with our ArmaComfort Barriers. Whether you need acoustic barriers in light industrial environments, sound partitions in buildings or noise reduction in vehicles, you can easily create quiet zones with our high-performance acoustic barriers.

Your project demands more. You deserve the best solution.

Experience the difference.





All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. It is the customer's responsibility to verify if the product is suitable for the intended application. The responsibility for professional and correct installation and compliance with relevant building regulations lies with the customer. Armacell takes every precaution to ensure the accuracy of the data provided in this document and all statements, technical information and recommendations contained within are believed to be correct at the time of publication. By ordering/receiving product you accept the **Armacell General Terms and Conditions of Sale** applicable in the region. Please request a copy if you have not received these.

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ABOUT ARMACELL

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With 3,100 employees and 24 production plants in 16 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology. For more information, please visit: www.armacell.com.

For product information, please visit:
www.armacell.eu



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