

## HIGH PERFORMANCE NOISE BARRIER

# ArmaSound Barrier EX

High-performance sound barrier material used for acoustic insulation of equipment and pipe systems.

- // Excellent at reducing the transmission of airborne
- // Flexible and easy to install
- // Can be used as part of an acoustic insulation system





# ArmaSound Barrier EX

An acoustic insulation material free of lead, unrefined aromatic oils and bitumen. It is excellent at reducing the transmission of airborne sound and in enhancing the insertion loss performance of insulated pipe systems by providing a barrier to noise. Ideal for industrial applications for a quieter, safer and more productive environment.

Excellent noise reduction performance



Use alone or as part of a system



Flexible and easy to install



#### Learn more.

### The principles of acoustic insulation

When a sound wave encounters an obstacle during transmission, part of the sound energy is reflected, part of it is absorbed by the obstacle and only a part of it is allowed to pass through the obstacle. This phenomen of reducing sound energy transmission due to the reflection and absorption of sound waves by obstacles is known as acoustic insulation.

Acoustic insulation materials have the ability to reduce sound transmission. These materials are usually heavy-weight, dense and has a high area density. The higher the area density, the better the acoustic insulation performance of the material.



#### **TECHNICAL DATA - ARMASOUND BARRIER EX**

Brief description	High performance mass loaded sound barrier for a quieter environment		
Product colour range	Black		
Applications	Flexible sheet for noise control in building, industrial equipment, pipe and other applications.		
Installation	For further information please contact our Technical Services.		
Property	Value / Assessment		Standard / Test method
Temperature range			
Service temperature	Min. °C	Max. °C	
	-25	5	
Fire Performance and Approvals			
Limiting oxygen index	≥ 30%		GB/T 2406.2
Transportation			
Burning behaviour of materials for use in motor vehicles	Pass Flammability of Interior Material		FMVSS 302
Physical attributes			
Density	$2.4 \text{ kg/m}^3 \pm 0.2$		
Mechanical properties			
Tensile strength	≥ 1.8 MPa		GB/T 528
Elongation	> 80% (2mm)		GB/T 528
Acoustic performance			
Weighted sound reduction index, Rw (C; Ctr) (dB)	Rw > 25dB (2mm); Rw > 29dB (3mm); Rw > 31dB (4mm)		ISO 10140-2, GB/T 19889.3
Health and environment			
Health aspects	Free of lead		
Other technical features			
Adhesion and fixing	ArmaFlex Adhesive 520 shall be used for reliable adhesion. 19 mm wide stainless steel bands with wing clips (or blind rivets) shall be used for fixing and final securing. $50 \text{ mm} \log x \ 0.5 \text{ mm}$ thick x 19 mm wide - stainless steel 'S' clips are also required on vertical piping and vessels.		
Application conditions <sup>1,2</sup>	Application temperature: +5 °C to +35 °C Max. relative humidity: 80%		
Shelf life <sup>3</sup>	Max. 3 years		
Storage <sup>4,5</sup>	Material shall be stored indoors, in clean and dry conditions, away from direct sunlight.		

<sup>&</sup>lt;sup>1</sup>Based on Armacell's internal test results.

<sup>&</sup>lt;sup>2</sup>Application temperature (temperature of installation) refers to the ambient temperature during application and the surface temperature of the substrate to which the product is installed.

<sup>&</sup>lt;sup>3</sup> Shelf life (maximum storage time) is limited to ensure that only currently manufactured products are installed on projects. This limitation is restricted solely to storage of the product and does not affect the lifetime of product after it has been installed.

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4 When storing or installing the product, it is recommended that the ambient temperature is maintained at 35°C or less.

<sup>&</sup>lt;sup>5</sup> If the material could be exposed to direct sunlight for an extended period of time during installation, protective covering should be set up to provide shade.

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## ABOUT ARMACELL

As the inventor of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal 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 more than 3,300 employees and 25 production plants in 19 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for acoustic and lightweight applications, recycled PET products, next-generation aerogel technology and passive fire protection systems.

