

INSULATION FOR THE
OIL AND GAS INDUSTRY

ArmaSound[®]

Barrier HC (AL2)

High performance noise barrier
for cryogenic temperatures.

- // Excellent at reducing the transmission of airborne sound
- // Enhances the insertion loss performance of pipe insulation
- // Highly flexible, easy to install
- // Mean sound reduction index $R \geq 31$ dB
- // Free of lead, unrefined aromatic oils and bitumen
- // Performs at very low temperatures

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 **armacell**[®]
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TECHNICAL DATA – ARMASOUND BARRIER HC (AL2)

Brief description	High performance sound barrier for a quieter environment. This product is a foil faced, mineral loaded vinyl (MLV) sound barrier loaded with barium sulphate. It has been designed to have high mass for effective acoustic pipe wrap applications in the oil and gas industry. The product is designed to be more flexible at room temperature, what furthermore gives outstanding low temperatures performances.		
Material type	Foil faced, highly flexible, mineral loaded vinyl (MLV) sound barrier mat. Thermoplastic Polymer compound.		
Colour	Black		
Material special Information	The product is free of lead, unrefined aromatic oils and bitumen. The product is designed to have a lower stiffness at ultra low temperatures than conventional MLV, making it more suitable for cold climate applications.		
Applications	Flexible sheet for noise control. Designed to improve the sound insulation of pipework and other structures at all frequencies. The mat is normally fixed in intimate contact with the original substrate or intermediate space layers.		
Special features	Typical industrial practice shall be applied.		
Foil Construction	12 μ PET / 25 μ aluminium / 12 μ PET.		
Property			
Temperature range	Value/Assessment	Standard/Test method	
Service temperature	Max. service temperature	+93 °C	+199 °F
	Min. service temperature	-50 °C	-58 °F
Fire performance & approvals			
International standards	Self-extinguishing, burn rate (flame progression) < 100 mm/min		Tested according to FMVSS 302
Weight			
Mass per unit area	for 1.3 mm thickness:	3.0 kg/m ²	0.61 lb/ft ² (±10%)
	for 1.7 mm thickness:	4.0 kg/m ²	0.82 lb/ft ² (±10%)
	for 2 mm thickness:	5.0 kg/m ²	1.02 lb/ft ² (±10%)
	for 2.6 mm thickness:	6.0 kg/m ²	1.23 lb/ft ² (±10%)
	for 4 mm thickness:	10.0 kg/m ²	2.05 lb/ft ² (±10%)
Acoustic performance			
Reduction of structure-borne sound transmission	for 1.3 mm thickness (3kg/m ²) ¹ : Mean sound reduction index Rw:	≥ 20 dB	
	for 1.7 mm thickness (4 kg/m ²) ¹ : Mean sound reduction index Rw:	≥ 21 dB	
	for 2 mm thickness (5 kg/m ²) ¹ : Mean sound reduction index Rw:	≥ 25 dB	
	for 2.6 mm thickness (6 kg/m ²) ¹ : Mean sound reduction index Rw:	≥ 28 dB	
	for 4 mm thickness (10 kg/m ²) ¹ : Mean sound reduction index Rw:	≥ 31 dB	
Mechanical properties			
Tensile strength (MD/CD)	≥ 1.3 MPa	≥ 180 psi	
Elongation (MD/CD)	≥ 60 %		Tested according to ISO 37 ²
Other technical features			
Health aspects	Free of lead		
Application and handling conditions ³	Application temperature: ⁴	+5 °C to +35 °C	+41 °F to +95 °F
	Max. relative humidity:	80%	
Adhesion and fixing	Self-adhesion application on the back side of the metal cladding layer. Non self-adhesive barrier applied with metal banding. Please contact Technical Services for further details.		
Storage	Material shall be stored indoors, in clean and dry conditions, away from direct sunlight, at temperature below 45°C.		
Shelf (storage) life ⁵	Max. 2 years		

1. Nominal values.

2. Type 1 dumb-bell test piece. Maximum specimen thickness according to the test standard is 3 mm.

3. For environmental conditions outside the given range please contact Technical Services.

4. 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.

5. Shelf life (maximum storage time) is limited in order to make sure that only currently manufactured products are applied 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.



Product range

Sheets

Standard dimensions: Product is available in standard sheet (2x1.25m) and 1.25m roll width. Other dimensions available upon request.

Accessories

	Article description	Units/Carton
ADH520/2,5E	2.5 litre tin	20 litre
ADH520/1,0E	1 litre tin	12 litre
ADH-HT625/1,0	1 litre tin	12 litre

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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 more than 3,200 employees and 27 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 high-tech and lightweight applications and next-generation aerogel blanket technology.

For more information, please visit:
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