

INSULATION FOR THE OIL AND GAS INDUSTRY

ArmaSound® Barrier E

High performance noise barrier
for ArmaSound Industrial Systems

- // Excellent at reducing the transmission of airborne sound
- // Enhances the insertion loss performance of pipe insulation
- // Flexible, easy to install
- // Weighted Sound Reduction Index $R_w \geq 28\text{dB}$
- // Free of lead, unrefined aromatic oils and bitumen
- // Integral component of ArmaSound Industrial Systems
- // Compliant to ISO 15665 Class C and Shell
DEP 31.46.00.31-Gen Class D
- // Satisfies acoustic class 8 according to NORSOK M-004
- // Sound Transmission Class (STC) from 28 to 31

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 **armacell**[®]
ArmaSound[®]

TECHNICAL DATA – ARMASOUND BARRIER E

Brief description	High performance mass loaded sound barrier for a quieter environment.
Material type	Vinyl sound barrier mat. Thermoplastic polymer compound.
Colour	Black
Material special information	The material is free of lead, unrefined aromatic oils and bitumen.
Product range ¹	Sheets / rolls, 2, 3 and 4 mm thickness.
Applications	Flexible sheet for noise control in industrial applications - designed as an integral component of the ArmaSound Industrial Systems.
Installation	The ArmaSound® Industrial Systems installation manual should be consulted before installation. Please contact Technical Services.

Property	Value/Assessment	Standard/Test method
Temperature range		
Service temperature	Max. service temperature	+65 °C +149 °F
	Min. service temperature	-20 °C -4 °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 2 mm thickness: 4.8 to 5.5 kg/m ² 0.98 to 1.13 lb/ft ² for 3 mm thickness: 7.2 to 8.25 kg/m ² 1.47 to 1.69 lb/ft ² for 4 mm thickness: 9.7 to 11.0 kg/m ² 1.99 to 2.25 lb/ft ²	
Acoustic performance		
Acoustic insertion loss	When used as part of an acoustic system ArmaSound Barrier E complies to ISO 15665 and Shell DEP 31.46.00.31-Gen.	Tested according to ISO 3741 (Equivalent method ASTM E1222) Classified according to ISO 15665
Weighted sound reduction index [R _w]	2 mm [5 kg/m ²] ¹ : R _w [C;Ctr] 28 [-1;-4] dB. 3 mm [7.5 kg/m ²] ¹ : R _w [C;Ctr] 30 [-1;-4] dB. 4 mm [10 kg/m ²] ¹ : R _w [C;Ctr] 31 [-1;-4] dB.	Tested according to ISO 10140-2 Classified according to ISO 717-1
Sound transmission class (STC)	2mm [5 kg/m ²] ⁶ : STC 28 3mm [7.5 kg/m ²] ⁶ : STC 30 4mm [10kg/m ²] ⁶ : STC 31	Tested according to ISO 10140-2/ASTM E90 Classified according to ASTM E413
Mechanical properties		
Tensile strength (MD/CD)	≥ 1.8 MPa ≥ 261 psi	Tested according to ISO 37 ²
Elongation (MD/CD)	≥ 25 %	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	ArmaFlex Adhesive 520 or Adhesive HT625 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 mm long x 0.5 mm thick x 19 mm wide - stainless steel 'S' clips are also required on vertical piping and vessels.	
Storage	Material shall be stored indoors, in clean and dry conditions, away from direct sunlight.	
Shelf (storage) life ⁵	Max. 3 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.

6. Based on single test results. Can be used for information/reference only.

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Sheets (Standard rolls*)

	Metric sizes			
	Nominal Length [m]	Nominal Width [m]	Nominal Thickness [mm]	Carton Content [m ²]
ASD-BAR-E-02	2.00	1.25	2.00	2.50
ASD-BAR-E-03	2.00	1.25	3.00	2.50
ASD-BAR-E-04	2.00	1.25	4.00	2.50

▼
Master roll (Americas)

	Imperial					Metric				
	Length [ft]	Width [ft]	Thickness [inches]	Density [lb/SF]	Carton Content [SF]	Length [m]	Width [m]	Thickness [mm]	Density [kg/m ²]	Carton Content [m ²]
ASD-BAR-E-02/EW80	262.47	4.00	0.08	1.00	1049.88	80.00	1.220	2.00	5.00	97.60
ASD-BAR-E-03/EW55	180.45	4.00	0.12	1.50	721.80	55.00	1.220	3.00	7.50	67.10
ASD-BAR-E-04/EW40	131.23	4.00	0.16	2.00	524.92	40.00	1.220	4.00	10.00	48.80

▼
Mini roll (Americas)

	Imperial					Metric				
	Length [ft]	Width [ft]	Thickness [inches]	Density [lb/SF]	Carton Content [SF]	Length [m]	Width [m]	Thickness [mm]	Density [kg/m ²]	Carton Content [m ²]
ASD-BAR-E-02/EW7	25.00	4.00	0.08	1.00	100.00	7.62	1.220	2.00	5.00	9.30
ASD-BAR-E-03/EW7	25.00	4.00	0.12	1.50	100.00	7.62	1.220	3.00	7.50	9.30
ASD-BAR-E-04/EW7	25.00	4.00	0.16	2.00	100.00	7.62	1.220	4.00	10.00	9.30

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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

* Please contact Technical services for other dimensions

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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 product information, please visit:
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