

INSULATION FOR THE OIL AND GAS INDUSTRY

ArmaSound® RD240

High performance sound absorption
insulation for a quieter environment

- // Excellent sound absorption behaviour
- // Easy application and low maintenance
- // Designed for use in demanding environments
- // Compliant to ISO 15665 Classes A to C and Shell DEP 31.46.00.31-Gen Class D
- // Satisfies acoustic classes 6, 7 and 8 according to NORSOK R-004
- // Optimum density, air-flow resistivity and complex pore geometry for maximum acoustic benefit

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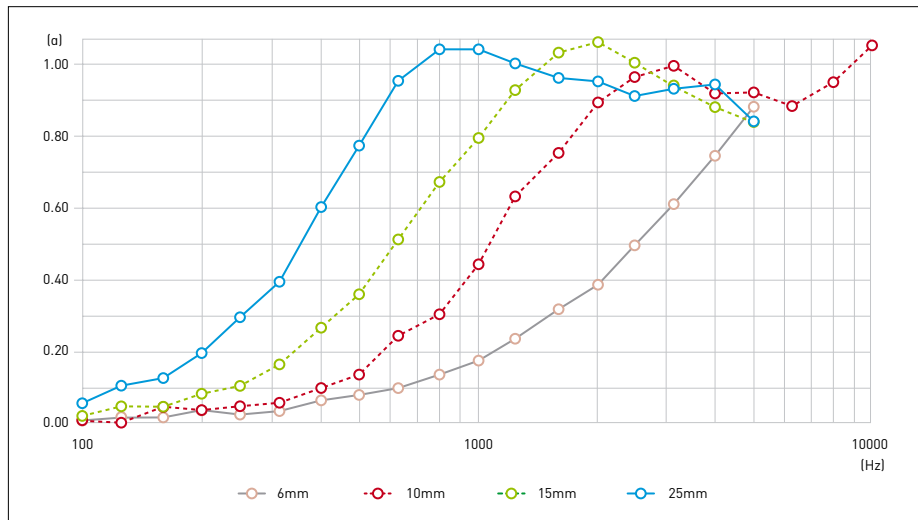
 **armacell**[®]
ArmaSound[®]

TECHNICAL DATA – ARMASOUND RD240

Brief description	Highly-flexible, hydrophobic, open-cell acoustic insulation material with complex pore geometry.
Material type	Elastomeric foam based on synthetic rubber.
Colour	Black
Special features	Excellent sound absorption performance.
Product range	Sheets, 10, 15, 20, and 25mm thickness / width 500 and 1000 mm / length 1000 and 2000 mm.
Applications	In general applications ArmaSound® RD240 is used as acoustic insulation material with excellent sound absorption performance in a variety of different applications, e.g. fan-coil units, duct linings, cabinet linings, chiller systems, enclosures, pipelines. In industrial applications ArmaSound® RD240 is used as an important component of ArmaSound Industrial Systems to provide acoustic insulation on industrial pipework and vessels ensuring reduction of sound transmission. Further industrial application area is sound absorption performance of enclosures.
Installation	For industrial applications it is recommended to consult the ArmaSound Industrial Systems Application manual and other relevant Armacell installation instructions and application manuals. Please contact Technical Services.
Regulation / approval compliance	Certificate of Fire Approval by Lloyd's Register (Class 1, BS 476 part 7).

Property	Value/Assessment					Standard/Test method		
Temperature range								
Service temperature	Max. service temperature	+85 °C		+185 °F		Tested according to EN 14706, EN 14707 and EN 14304		
	Min. service temperature	-20 °C		-4 °F				
Thermal conductivity								
Thermal conductivity (metric units)	$\lambda < 0.062 \text{ W/(m}\cdot\text{K)}$ at 0 °C					Tested according to EN 12667 (Equivalent methods ASTM C177 and C518)		
Thermal conductivity (imperial units)	$\lambda < 0.430 \text{ Btu}\cdot\text{in/(h}\cdot\text{ft}^2\cdot\text{°F)}$ at 32 °F							
Fire performance & approvals								
International standards	Class 1	Approved by Lloyds Register				Tested according to BS 476 part 7		
	< 25 flame spread index					Tested according to ASTM E84		
General fire performance	Self-extinguishing, does not drip, does not spread flames.							
Density								
Density	220 to 360 kg/m ³	13.7 to 25.5 lb/ft ³				Tested according to ISO 845, ASTM D1622		
Acoustic performance								
Acoustic insertion loss	When used as part of a system ArmaSound RD 240 complies to ISO 15665 Classes B to C and Shell DEP 31.46.00.31-Gen Class D					Tested according to ISO 3741 (equivalent method ASTM E1222) Classified according to ISO 15665		
Sound absorption (typical values) ²	Octave band sound absorption coefficients, α :						Tested according to ISO 354. Rated according to EN ISO 11654	
		Frequency [Hz]						
	Thickness (mm)	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz		4000 Hz
	6	0.01	0.03	0.07	0.18	0.39		0.74
	10	0.01	0.04	0.15	0.46	0.87		0.94
	15	0.03	0.11	0.38	0.80	1.03		0.89
25	0.09	0.28	0.77	1.03	0.94	0.90		





Weighted sound absorption coefficients, α_w :

Thickness (mm)	6	10	15	25
α_w	0.15 (H)	0.25 (H)	0.40 (MH)	0.55 (MH)
Class	E	E	D	C

Tested according to ISO 354
Rated according to EN ISO 11654

Noise reduction coefficients (NRC):

Thickness (mm)	6	10	15	25
NRC	0.15	0.40	0.60	0.70

Calculated according to ASTM C423-01

Mechanical properties

Tear strength (MD/CD)	0.4 to 1.4 kN/m	2.3 to 8.0 lbf/in	Tested according to ISO 34-1 ³
Tensile strength (MD)	70 to 190 kPa	10.2 to 27.6 psi	Tested according to ISO 1798 ⁴
Elongation (MD)	50 to 90 %		Tested according to ISO 1798 ⁴

Other technical features

Weather resistance	In all industrial applications, except for enclosures and other similar sound absorption applications, the outer layer of the material must be protected with an adequate covering like Arma-Chek R, metal jacketing or preformed UV-cured GRP (Glass-Reinforced Plastic) cladding. For further information please contact Technical Services.		
Health aspects	Fibre dust free		
Water absorption	≤ 10% by volume after 24 hours ¹		Tested according to AGI Q 136
Application and handling conditions ⁵	Application temperature: ⁶ Max. relative humidity:	+5 °C to +35 °C 80%	+41 °F to +95 °F
Sealing and adhesion	ArmaFlex Adhesive 520 or Adhesive HT625 shall be used for reliable adhesion of joints and seams. In some configurations 19 mm wide stainless steel bands with wing clips (or blind rivets) shall be used for fixing and final securing.		
Storage	Material shall be stored indoors, in clean and dry conditions, away from direct sunlight.		
Shelf (storage) life ⁷	Max. 3 years		

- Based on single test results. Can be used for information / reference only.
- The octave band and 1/3rd octave band sound absorption coefficients shown in the table and chart respectively, are provided as examples which are based on single test results. The values presented can be used for information / reference only.
- Minimum value in Machine Direction (MD) and in Cross Direction (CD). Method B, procedure (b), angle test piece with a nick.
- Type 1 sample.
- For environmental conditions outside the given range please contact Technical Services.
- 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.
- 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.



Sheets

Item	Nominal thickness [mm]	Nominal sheet length [m]	Nominal sheet width [m]	m ² /carton
ASD-240-10	10	1	1	5
ASD-240-15	15	1	1	3
ASD-240-20	20	1	1	2
ASD-240-25	25	1	1	2
ASD-240-25/1	25	2	0.5	80
ASD-240-25/10	25	2	1	80

Accessories

Item	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

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 regulations and project specification 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:
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