



INSTALL IT. ENJOY QUIETNESS.

ArmaSound RD240

Optimal performance at lower thickness

- // Excellent sound absorption behaviour
- // Highly hydrophobic, open-cell structure designed to resist water ingress
- // Air-flow resistivity and complex pore geometry for maximum acoustic benefit
- // Easy application and low maintenance
- // Designed for use in demanding environments



 **armacell**[®]
MAKING A DIFFERENCE AROUND THE WORLD

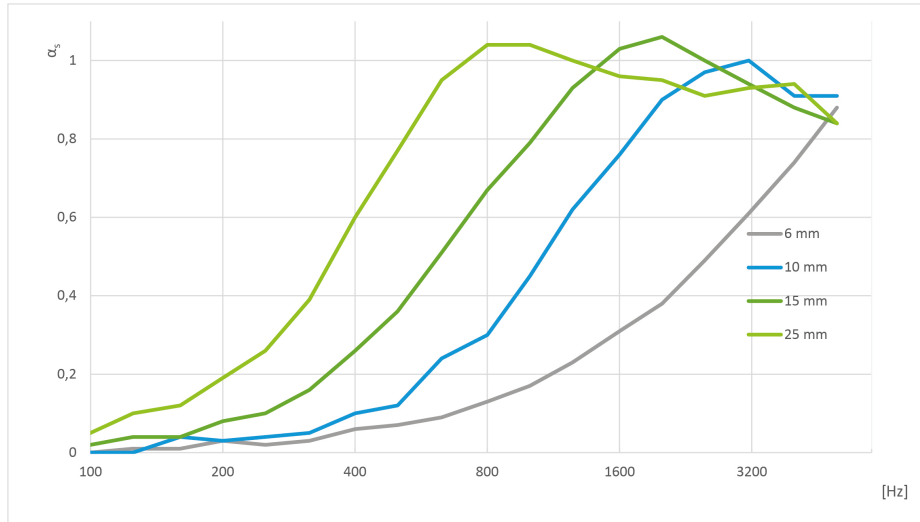
TECHNICAL DATA - ARMASOUND RD240

| | |
|----------------------|---|
| Brief description | Highly flexible, hydrophobic, open-cell acoustic insulation material with complex pore geometry. |
| Material type | Elastomeric foam based NBR/PVC synthetic rubber. |
| Product colour range | 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 | Please refer to the ArmaSound Industrial Systems application manual before installation. Please contact Technical Services. |
| Remarks | Certificate of Fire Approval by Lloyd's Register (Class 1, BS 476 part 7). |

| Property | Value / Assessment | | | | Standard / Test method | |
|--|---|---------|--------------|---------|------------------------------|-----------|
| Temperature range | | | | | | |
| Service temperature | Min. °C | Min. °F | Max. °C | Max. °F | EN 14706, EN 14707, EN 14304 | |
| | -20 | -4 | 85 | 185 | | |
| Thermal conductivity | | | | | | |
| Declared thermal conductivity | θm | | 0 °C (32 °F) | | EN 12667 ¹ | |
| | λd ≤ [W/(m·K)] | | 0.062 | | | |
| | k ≤ [Btu-in/(h-ft ² -°F)] | | 0.430 | | | |
| Fire Performance and Approvals | | | | | | |
| Surface spread of flame | Class 1 | | | | BS 476 Part 7 | |
| Surface burning characteristics | < 25 flame spread index | | | | ASTM E84 | |
| Fire performance | | | | | | |
| Practical fire behaviour | Self-extinguishing, does not drip, does not spread flames. | | | | | |
| Resistance to water | | | | | | |
| Water absorption ² | ≤ 10% by volume after 24 hours | | | | AGI Q 136 | |
| Physical attributes | | | | | | |
| Density | 220 to 360 kg/m ³ 13.7 to 25.5 lb/ft ³ | | | | ISO 845, ASTM D1622 | |
| Mechanical properties | | | | | | |
| Tensile strength | (MD) 70 to 190 kPa 10.2 to 27.6 psi | | | | ISO 1798 ³ | |
| Elongation | 50 to 90 % | | | | ISO 1798 ³ | |
| Tear strength | 0.4 to 1.4 kN/m 2.3 to 8.0 lbf/in | | | | ISO 34-1 ⁴ | |
| Acoustic performance | | | | | | |
| Weighted sound absorption coefficient, aw ² | 6 mm: 0.15 (H) Class E 10 mm: 0.25 (H) Class E 15 mm: 0.40 (MH) Class D 25 mm: 0.55 (MH) Class C | | | | ISO 354, EN ISO 11654 | |
| Noise reduction coefficient ² | Thickness (mm) | 6 | 10 | 15 | 25 | ASTM C423 |
| | NRC | 0.15 | 0.40 | 0.60 | 0.70 | |

| Property | Value / Assessment | | | | | Standard / Test method |
|--|--------------------|------|------|------|------|------------------------|
| | Thickness | 6mm | 10mm | 15mm | 25mm | |
| Octave band sound absorption coefficient, α^2 | 125 Hz | 0.01 | 0.01 | 0.03 | 0.09 | ISO 354, EN ISO 11654 |
| | 250 Hz | 0.03 | 0.04 | 0.11 | 0.28 | |
| | 500 Hz | 0.07 | 0.15 | 0.38 | 0.77 | |
| | 1000 Hz | 0.18 | 0.46 | 0.80 | 1.03 | |
| | 2000 Hz | 0.39 | 0.87 | 1.03 | 0.94 | |
| | 4000 Hz | 0.74 | 0.94 | 0.89 | 0.90 | |

Absorption coefficient graph



Weather and UV resistance

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 and environment

Health aspects Fibre dust free

Other technical features

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

Adhesion and sealing 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.

Application conditions⁵ Application temperature: +5 °C to +35 °C (+41 °F to +95 °F)
Maximum relative humidity: 80%

Shelf life⁶ Max. 3 years

Storage Material shall be stored indoors, in clean and dry conditions, away from direct sunlight.

¹ Equivalent methods ASTM C177 and C518.

² Based on single test results. Can be used for information / reference only.

³ Type 1 sample.

⁴ Minimum value in Machine Direction (MD) and in Cross Direction (CD). Method B, procedure (b), angle test piece with a nick.

⁵ 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.

⁶ 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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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.



For more information, please visit:
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