



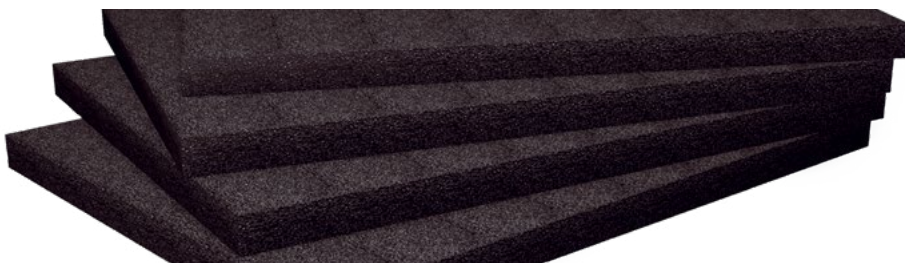
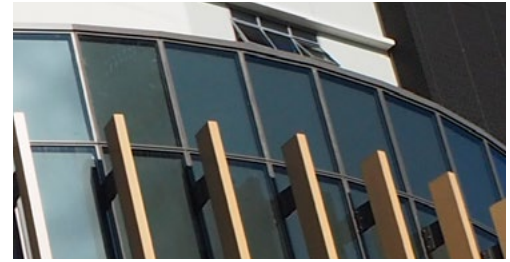
HIGH-PERFORMANCE ACOUSTIC ABSORBER FOR A QUIETER ENVIRONMENT

ArmaPhonic[®]

Effective air-borne sound absorption
across a broad frequency range

- // Fibre-free, open-cell material with complex pore geometry
- // Combination of acoustic and thermal properties
- // Flexible and light weight
- // Additional barrier performance, vibration damping and de-coupling (isolation) properties

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 **armacell**[®]
ArmaPhonic[®]

ArmaPhonic

Fibre-free. Maximised absorption at key "nuisance" frequencies. Proven alternative to complex "foam barrier" multi-layers. Visco-elastic properties help to dampen resonance effects in metal panels. Reduces structure-borne noise transmission when used as isolation pads.

Lining for automotives

Lining for HVAC systems

Acoustic enclosures

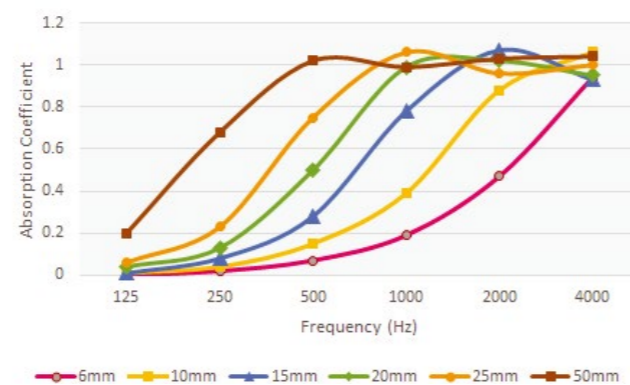
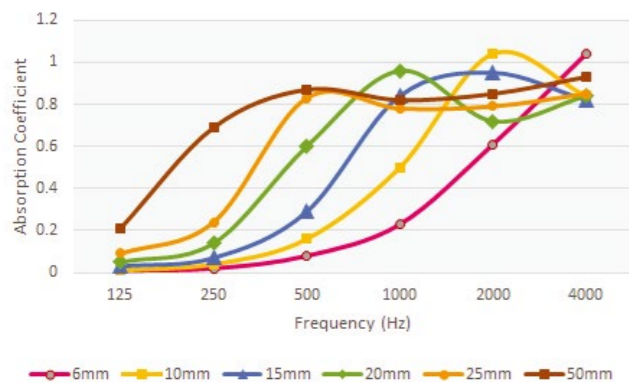


ArmaPhonic S						
Octave band centre frequency (Hz)						
Thickness (mm)	125	250	500	1000	2000	4000
6	0.01	0.02	0.08	0.23	0.61	1.04
10	0.01	0.04	0.16	0.50	1.04	0.84
15	0.03	0.07	0.29	0.84	0.95	0.82
20	0.05	0.14	0.60	0.96	0.72	0.84
25	0.09	0.24	0.83	0.78	0.79	0.85
50	0.21	0.69	0.87	0.82	0.85	0.93

ArmaPhonic H						
Octave band centre frequency (Hz)						
Thickness (mm)	125	250	500	1000	2000	4000
6	0.00	0.02	0.07	0.19	0.47	0.94
10	0.01	0.04	0.15	0.39	0.88	1.06
15	0.01	0.08	0.28	0.78	1.07	0.93
20	0.04	0.13	0.50	0.99	1.02	0.95
25	0.06	0.23	0.75	1.06	0.96	1.00
50	0.20	0.68	1.02	0.99	1.03	1.04

Noise reduction coefficient (NRC) acc. to ASTM C423						
Thickness (mm)	6	10	15	20	25	50
NRC	0.25	0.45	0.55	0.60	0.65	0.80

Noise reduction coefficient (NRC) acc. to ASTM C423						
Thickness (mm)	6	10	15	20	25	50
NRC	0.20	0.35	0.55	0.65	0.75	0.95



Brief description	ArmaPhonic is a unique open-cell sound absorber that offers additional barrier (transmission loss) performance and both vibration damping and de-coupling (isolation) properties.		
Material type	Elastomeric foam based on synthetic rubber.		
Colour	Black.		
Special features	Excellent sound absorption performance.		
Applications	Delivering optimal performance at lower thickness than traditional materials, ArmaPhonic is the trusted acoustic absorption material for HVAC applications (such as the fan-coil units, duct and cabinet linings and chiller systems), heavy industrial and automotive purposes (such as engine component lining and under-bonnet insulation), enclosures as well as in oil and gas facilities.		

Property	Value/Assessment		Standard/Test method
Temperature range			
Service temperature	Max. service temperature	+85 °C	Contact Armacell for applications with service temperatures above +85 °C and below -20 °C
	Min. service temperature	-20 °C	
Thermal conductivity			
	ArmaPhonic S	$\lambda_d \leq 0.047$ W/(m·K)	EN ISO 12667
	ArmaPhonic H	$\lambda_d \leq 0.052$ W/(m·K)	
Fire performance & approvals			
Flammability	V-0		UL 94
Other technical features			
Density	ArmaPhonic S	≥ 140 kg/m ³	
	ArmaPhonic H	≥ 220 kg/m ³	
Health aspects	Free of fibre and formaldehyde.		
Chemical resistance	Good (Please consult Armacell for details)		

All data and technical information are based on results achieved under typical application conditions. Recipients of this information should, in their own interest and responsibility, clarify with our Technical department in due time whether or not the data and information apply to the intended application area. For outside use, ArmaFlex should be protected with ArmaFinish Paint or Arma-Chek[®] covering within 3 days of installation.

Sheets (Width: 1.0m, Length: 1.0m)

Item	ArmaPhonic S		ArmaPhonic H		
	Insulation thickness [mm]	Carton content [sqm]	Insulation thickness [mm]	Carton content [sqm]	
IAP06100SMB	6	8	IAP06100SHD	6	8
IAP10100SMB [#]	10	5	IAP10100SHD	10	5
IAP15100SMB	15	3	IAP15100SHD	15	3
IAP17100SMB [#]	17	3			
IAP20100SMB	20	2	IAP20100SHD	20	2
IAP25100SMB	25	2	IAP25100SHD	25	2
IAP25200SMB [#]	25	40			
IAP30100SMB	30	2	IAP30100SHD [#]	30	2
IAP40100SMB	40	1	IAP40100SHD [#]	40	1
IAP50100SMB	50	1	IAP50100SHD	50	1
IAP50200SMB [#]	50	20			

[#]Made to order. Minimum order quantities and different lead times may apply.
[#]Dimension of IAP25200SMB is 1m width and 2m length.
 Self-adhesive option available upon request. Minimum order quantities and different lead times may apply.





//Cover Photo (Top)

Sengkang Hospital, Singapore

Support outstanding indoor air quality with no risk of fibre leakage.

Air ducts often provide a pathway for noise transmission from other parts of the building. Engineered to absorb air-borne sound across a broad frequency range, ArmaPhonic was specified to insulate the air ducts at Sengkang Hospital. This open-cell insulation material combines physical properties such as material thickness and density to influence peak absorption frequency, thereby providing optimal acoustic performance at lower thicknesses as compared to conventional materials.

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 building regulations 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 3,000 employees and 27 production plants in 17 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:
www.armacell.com


ArmaPhonic®