HIGH-PERFORMANCE ACOUSTIC ABSORBER FOR A QUIETER ENVIRONMENT

ArmaComfort

Effective air-borne sound absorption across a broad frequency range

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

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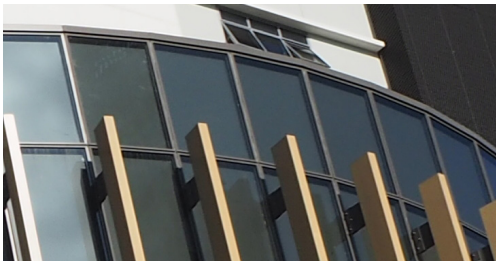
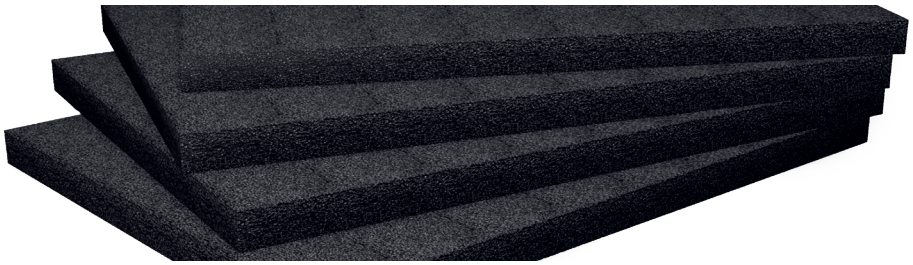




armacell®
ArmaComfort®

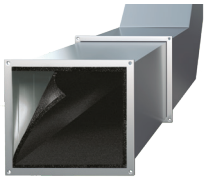
HIGH-PERFORMANCE ACOUSTIC ABSORBER FOR A QUIETER ENVIRONMENT

ArmaComfort

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

ArmaComfort S
Sheet - precut (Width: 1.0m, Length: 1.0m)

Item	Insulation thickness [mm]	Carton content [sqm]
AS06100SMB	6	8
AS10100SMB	10	5
AS15100SMB	15	3
AS20100SMB	20	2
AS25100SMB	25	2
AS50100SMB#	50	1

#Made to order. Minimum order quantities and different lead times may apply.
Self-adhesive option available upon request. Minimum order quantities and different lead times may apply.

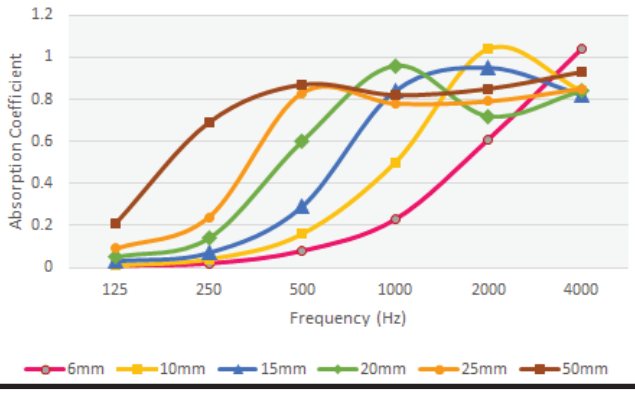
ArmaComfort H
Sheet - precut (Width: 1.0m, Length: 1.0m)

Item	Insulation thickness [mm]	Carton content [sqm]
AS06100SHD#	6	8
AS10100SHD	10	5
AS15100SHD#	15	3
AS20100SHD	20	2
AS25100SHD	25	2
AS50100SHD#	50	1

#Made to order. Minimum order quantities and different lead times may apply.
Self-adhesive option available upon request. Minimum order quantities and different lead times may apply.

TECHNICAL DATA - ARMACOMFORT S

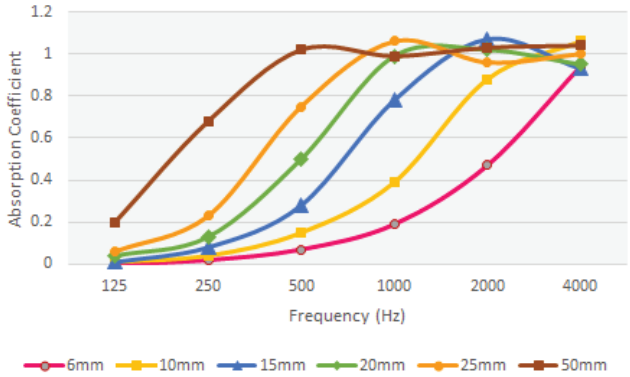
Brief description	ArmaComfort is a unique open-cell sound absorber that offers additional barrier (transmission loss) performance and both vibration damping and de-coupling (isolation) properties.
Material type	Elastomeric foam based on synthetic rubber.
Colour	Black.
Special features	Excellent sound absorption performance.
Applications	Delivering optimal performance at lower thickness than conventional materials, ArmaComfort 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	Range	Minimum [°C]	Maximum [°C]					
	Full range	-20	+85					
	Remarks	Contact Armacell for applications beyond these service temperature range.						
Thermal conductivity								
Declared thermal conductivity	θ_m	+23 °C						GB/T 10294
	$\lambda_d \leq$ [W/(m·K)]	0.051 (for reference)						
Fire performance								
Flammability of plastic materials	V-0 rating							UL 94
Acoustic performance								
Octave band sound absorption coefficient, α	Thickness [mm]	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	EN ISO 354
	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	
Noise reduction coefficient (NRC)	Thickness	6mm	10mm	15mm	20mm	25mm	50mm	ASTM C423
	NRC	0.25	0.45	0.55	0.60	0.65	0.80	
Absorption coefficient graph								
Health and environment								
Environmental Product Declaration (EPD)	Type III EPD: Declaration number 4789125188.101.1, UL Environment.							
Health aspects	Free of fibre and formaldehyde.							
Other technical features								
Density	≥ 140 kg/m³							

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.

TECHNICAL DATA - ARMACOMFORT H

Brief description	ArmaComfort 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 conventional materials, ArmaComfort 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	Range	Minimum [°C]	Maximum [°C]					
	Full range	-20	+85					
	Remarks	Contact Armacell for applications beyond these service temperature range.						
Thermal conductivity								
Declared thermal conductivity	θ_m	+23 °C						GB/T 10294
	$\lambda_d \leq$ [W/(m·K)]	0.070 (for reference)						
Fire performance								
Flammability of plastic materials	V-0 rating							UL 94
Acoustic performance								
Octave band sound absorption coefficient, α	Thickness [mm]	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	EN ISO 354
	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	0.253	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)	Thickness	6mm	10mm	15mm	20mm	25mm	50mm	ASTM C423
	NRC	0.20	0.36	0.55	0.65	0.75	0.95	
Absorption coefficient graph								
Health and environment								
Environmental Product Declaration (EPD)	Type III EPD: Declaration number 4789125188.101.1, UL Environment.							
Health aspects	Free of fibre and formaldehyde.							
Other technical features								
Density	≥ 220 kg/m³							

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.

CERTIFIED
ENVIRONMENTAL PRODUCT DECLARATION
UL.COM/EPD

// 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 (now rebranded as ArmaComfort) 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.

00035 | ArmaComfort S&H | ArmaComfort | ProductDS | 112021 | en-SG

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 3,200 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.

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For more information, please visit:
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