



FOR SAFETY, EFFICIENCY &
BETTER INDOOR AIR QUALITY

ArmaFlex[®] Class 0

The trusted insulation system
for HVAC applications

- // Class 0 fire classification according to BS476 Parts 6 and 7
- // Reduces mould and bacteria growth with MICROBAN[®] anti-microbial product protection, unique to Armacell
- // Effectively reduces thermal and energy loss

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 **armacell**[®]
ArmaFlex[®]

FOR SAFETY, EFFICIENCY &
BETTER INDOOR AIR QUALITY

ArmaFlex Class 0

Your trusted insulation system for HVAC applications. Conserves energy and reduces heat loss. Class 0 fire classification according to BS476 Parts 6 and 7. Certified by leading international fire safety agencies. Fibre-free. Infused with Microban anti-microbial protection for even better indoor air quality.

Energy efficient



Easy to install



Better air quality



// Excellent fire performance

FM Approved for entire range of insulation thickness. Certified to conform to safety, reliability and performance standards of various local fire safety bodies.

// Closed-cell structure

Minimises moisture penetration to ensure long-term protection against corrosion under insulation. Removes the need for an additional water vapour barrier.

// Energy efficient

Low thermal conductivity minimises energy losses to give long term energy savings.

// Microban protection

When microbes come into contact with the insulation surface, Microban penetrates the cell wall of the microorganism, disabling its ability to function, grow and reproduce.

// Environmentally safe

Zero Ozone Depletion Potential and Global Warming Potential; rated "Excellent" by Singapore Green Building Council.

// Safer indoor air quality

Fibre-free, free of formaldehyde and GREENGUARD® Gold certified for low emissions of volatile organic compounds.

// Easy-to-install

Highly flexible elastomeric foam that can be installed quickly on irregular shapes and installations in tight spaces.

TECHNICAL DATA - ARMAFLEX CLASS 0

Brief description	ArmaFlex Class 0 is a flexible insulation material that reliably protects against water vapour ingress due to its closed-cell structure. No additional water vapour barrier is required.
Material type	Elastomeric foam based on synthetic rubber.
Colour	Black.
Special features	ArmaFlex sheets is infused with Microban anti-microbial protection to provide additional assurance against mould and bacteria growth.
Applications	Thermal insulation/protection of pipes, air ducts and vessels (incl. elbows, fittings, flanges etc.) in hot and cold water services, chilled water lines, heating systems, air conditioning ductwork and refrigerated pipework, installed in commercial, industrial, residential and public buildings to control condensation, protect against frost and reduce energy loss.
Safety and environment	Type III Environmental Product Declaration (EPD): Declaration number 4786944121.101.1, UL Environment.
Assembly	Please refer to the ArmaFlex installation manual for advice. ArmaFlex can be used together with ArmaFlex 520 adhesive and ArmaFix® pipehangers for a complete insulation system.

Property	Value/Assessment	Standard/Test method												
Temperature range														
Service temperature	Max. service temperature	+105 °C +85 °C if sheet or tape is glued to the object with its whole surface.												
	Min. service temperature	-50 °C												
Thermal conductivity														
	<table border="1"> <tr> <td>0m</td> <td>-20</td> <td>+/-0</td> <td>+20</td> <td>+40</td> <td>[°C]</td> </tr> <tr> <td>$\lambda \leq$</td> <td>0.032</td> <td>0.034</td> <td>0.036</td> <td>0.039</td> <td>[W/(m·K)]</td> </tr> </table>	0m	-20	+/-0	+20	+40	[°C]	$\lambda \leq$	0.032	0.034	0.036	0.039	[W/(m·K)]	ASTM C518, EN ISO 8497, GB/T 10295, GB/T10296
0m	-20	+/-0	+20	+40	[°C]									
$\lambda \leq$	0.032	0.034	0.036	0.039	[W/(m·K)]									
Water vapour diffusion resistance														
Water vapour diffusion resistance factor	$\mu \geq 10,000$	DIN EN 13469, DIN EN 12086, GB/T 17146-1997												
Water vapour permeability	$\leq 1.96 \times 10^{-11} \text{g}/(\text{m}\cdot\text{s}\cdot\text{Pa})$													
Fire performance & approvals														
Surface spread of flame	Class 1	BS 476 Part 7:1997												
Fire performance according to building regulations	Class 0	BS 476 Part 6:1989												
Burning behaviour of building materials and products	Class B1	GB 8624 -2012												
Flammability	V-0, FM Approved	UL 94, FM 4924												
Practical fire behaviour	Does not generate flaming droplets.													
Others	Registered by the Fire Services Department of Hong Kong for the entire range of thickness. Product conforms to the requirements for building products under the Fire Safety and Shelter Department, Singapore.													
Other technical features														
Resilience after compression relief	$\geq 70\%$	GB/T 6669-2001												
Water absorption by vacuum	$\leq 10\%$	GB/T 17794												
Chemical resistance	Excellent resistance to ozone, oil and chemicals (consult product test list).													
UV resistance	For UV protection, ArmaFinish Paint or Arma-Chek® covering system is required. For outside use, ArmaFlex should be protected within 3 days of installation.													
Anti-microbial behaviour	Built-in Microban anti-microbial product protection in sheets: No fungal growth is observed.													
Health aspects	Free of fibre and formaldehyde. Low volatile organic compounds (VOC), Low Total Aldehyde. GREENGUARD Gold for even lower VOC and total chemical emissions.	UL2818-2013												
Environmental aspect	Zero ODP and GWP. Singapore Green Building Product Certified: "Excellent" rating.													
Storage	Material shall be stored in dry, clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0 °C to 35 °C).													
Shelf (storage life)	Self-adhesive sheets, tubes and tapes: 1 year.													

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.

Tubes (Length: 2.0m)

6mm		9mm		13mm		19mm		Insulation inner diameter	Cu pipe outer diameter	Fe pipe outer diameter	Nominal diameter (DN)	
Item	Carton content	Item	Carton content	Item	Carton content	Item	Carton content					
	[m]		[m]		[m]		[m]	[mm]	[inch]	[mm]		
COB-06X015#	264	COB-09X006#	312	COB-13X006	180	COB-19X006	96	6	1/4			
		COB-09X010#	264	COB-13X010	144	COB-19X010	84	10	3/8		6	
		COB-09X012#	220	COB-13X012	128	COB-19X012	84	12	1/2			
		COB-09X015	180	COB-13X015	112	COB-19X015	70	15	5/8		14	8
		COB-09X020	144	COB-13X020	90	COB-19X020	60	20	3/4			
COB-06X022#	180	COB-09X022	128	COB-13X022	90	COB-19X022	60	22	7/8	22	15	
COB-06X025#	144	COB-09X025	108	COB-13X025	80	COB-19X025	50	25	1	25		
		COB-09X028	98	COB-13X028	72	COB-19X028	50	28	1-1/8	28	20	
		COB-09X032#	84	COB-13X032	64	COB-19X032	40	32	1-1/4	32		
		COB-09X035	82	COB-13X035	58	COB-19X035	40	35	1-3/8		25	
		COB-09X038	72	COB-13X038#	54	COB-19X038#	36	38	1-1/2	38		
		COB-09X042	64	COB-13X042	48	COB-19X042	36	42	1-5/8		32	
						COB-19X045#	30	45	1-3/4			
		COB-09X048#	56	COB-13X048#	42	COB-19X048	30	48	1-7/8		40	
		COB-09X054#	54	COB-13X054	42	COB-19X054	30	54	2-1/8			
				COB-13X057#	36	COB-19X057#	28	57	2-1/4	57		
		COB-09X060#	54	COB-13X060	36	COB-19X060	24	60	2-3/8		50	
				COB-13X067#	36	COB-19X067#	22	67	2-5/8			
				COB-13X076	32	COB-19X076	16	76	3	76		
								80	3-1/8			
				COB-13X089	24	COB-19X089	12	89	3-1/2	89	80	
				COB-13X108#	16	COB-19X108#	10	108	4-1/4	108		
				COB-13X114#	16	COB-19X114#	10	114	4-1/2	114	100	
								133	5-1/4			
						COB-19X140#	6	140			125	

*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.

Sheets (rolls)

1.22m width				1.50m width			
Item	Insulation thickness	Carton content	Length	Item	Insulation thickness	Carton content	Length
	[mm]	[sqm]	[m]		[mm]	[sqm]	[m]
				COB-06150/E#	6	22.5	15
				COB-09150/E	9	15.0	10
COB-13122/E#	13	9.76	8	COB-13150/E	13	12.0	8
				COB-16150/E#	16	10.5	7
COB-19122/E#	19	7.32	6	COB-19150/E	19	9.0	6
COB-25122/E	25	4.88	4	COB-25150/E	25	9.0	6
COB-30122/E#	30	3.66	3	COB-30150/E	30	6.0	4
COB-32122/E#	32	3.66	3	COB-32150/E	32	6.0	4
				COB-35150/E#	35	6.0	4
COB-40122/E#	40	3.66	3				
COB-50122/E#	50	3.05	2.5				

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Tubes (Length: 2.0m)

25mm		32mm		40mm		50mm		Insulation inner diameter	Cu pipe outer diameter	Fe pipe outer diameter	Nominal diameter (DN)
Item	Carton content	Item	Carton content	Item	Carton content	Item	Carton content				
	[m]		[m]		[m]		[m]	[mm]	[inch]	[mm]	
COB-25X006	60	COB-32X006#	30	COB-40X006#	20	COB-50X006#	12	6	1/4		
COB-25X010	54	COB-32X010	36	COB-40X010	24	COB-50X010#	12	10	3/8		6
COB-25X012	48	COB-32X012	32	COB-40X012#	24	COB-50X012#	12	12	1/2		
COB-25X015	40	COB-32X015	32	COB-40X015	22	COB-50X015#	12	15	5/8	14	8
COB-25X020	36	COB-32X020	24	COB-40X020	18	COB-50X020#	12	20	3/4		
COB-25X022	36	COB-32X022	24	COB-40X022	18	COB-50X022#	12	22	7/8	22	15
COB-25X025	32	COB-32X025	22	COB-40X025#	18	COB-50X025#	12	25	1	25	
COB-25X028	32	COB-32X028	22	COB-40X028	16	COB-50X028#	12	28	1-1/8	28	20
COB-25X032	32	COB-32X032	20	COB-40X032#	16	COB-50X032#	10	32	1-1/4	32	
COB-25X035	30	COB-32X035	18	COB-40X035	12	COB-50X035	10	35	1-3/8		25
COB-25X038#	24	COB-32X038#	16	COB-40X038#	12	COB-50X038#	8	38	1-1/2	38	
COB-25X042	24	COB-32X042	16	COB-40X042	12	COB-50X042	8	42	1-5/8		32
COB-25X045#	24	COB-32X045#	12	COB-40X045#	12			45	1-3/4		
COB-25X048	20	COB-32X048	12	COB-40X048	12	COB-50X048	8	48	1-7/8		40
COB-25X054	20	COB-32X054#	12	COB-40X054#	10	COB-50X054#	8	54	2-1/8		
COB-25X057#	16	COB-32X057#	12	COB-40X057#	10			57	2-1/4	57	
COB-25X060	20	COB-32X060	12	COB-40X060	10	COB-50X060	8	60	2-3/8		50
COB-25X067	14	COB-32X067#	10	COB-40X067#	8	COB-50X067#	6	67	2-5/8		
COB-25X076	16	COB-32X076	10	COB-40X076	8	COB-50X076	4	76	3	76	
COB-25X080#	12							80	3-1/8		
COB-25X089	16	COB-32X089	8	COB-40X089	8	COB-50X089	4	89	3-1/2	89	80
COB-25X108#	8	COB-32X108#	6	COB-40X108#	6	COB-50X108#	4	108	4-1/4	108	
COB-25X114	6	COB-32X114#	6	COB-40X114	4	COB-50X114	4	114	4-1/2	114	100
		COB-32X133#	6					133	5-1/4		
COB-25X140#	6	COB-32X140#	4	COB-40X140#	4	COB-50X140	4	140			125
COB-25X168#	6	COB-32X168#	4	COB-40X168	4	COB-50X168#	4				150

*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.

Accessories

Item	Carton content	Article description
AS-ATAPECOB-9M	24 rolls	ArmaFlex Class 0 insulation tape (3mm thickness x 50mm width x 9.14 m)
AS-AD-5201G	4 x 3.78 litre cans	ArmaFlex 520 adhesive
AS-PAINT2.5LW	4 x 2.5 litre cans	ArmaFinish paint
SF-CLEANER-1.0	6 x 1.0 litre cans	Solvent-free cleaner for use with ArmaFlex adhesive
CUTTING-SET	1	ArmaFlex cutting set (3 knives and 1 sharpening stone)
GLUEM-BRUSH11MM	5 x 4	Gluemaster (11mm diameter) Comes with extra brush points
GLUEM-BRUSH17MM	5 x 4	Gluemaster (17mm diameter) Comes with extra brush points
GLUEMASTER B	12	Gluemaster adhesive pump



//Cover Photo (Top)

Belfast City Hall, Northern Ireland

Reduce insulation thickness with thermal efficiency and acoustic attenuation in one product

The Belfast City Hall underwent a comprehensive overhaul to improve the thermal and acoustic insulation of its air-conditioning system. Due to the challenges of limited space as well as the need to suppress noise generated by the air-handling units, ArmaFlex Class 0 was used as an internal lining of the ductwork walls. With the benefit of thermal and acoustic insulation in one product, the total installed cost of insulation is effectively reduced.

//Cover Photo (Right)

South Beach, Singapore

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:
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