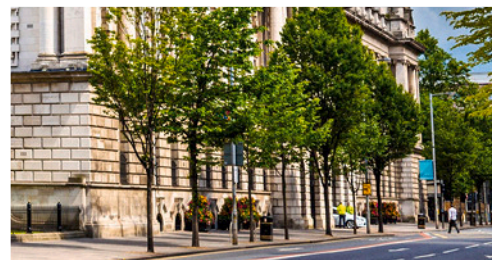# FOR SAFETY, EFFICIENCY & BETTER INDOOR AIR QUALITY

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 antimicrobial product protection, unique to Armacell
// Effectively reduces thermal and energy loss
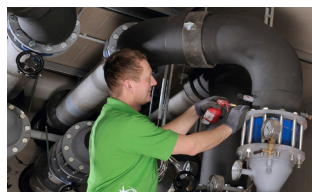
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armacell®
ArmaFlex®

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 antimicrobial 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 permeation 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
Free of fibre and 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.
Product colour range	Black
Special features	ArmaFlex sheets is infused with Microban antimicrobial protection to provide additional assurance against mould and bacteria growth.
Applications	Thermal insulation/protection of pipes, air ducts and vessels (including 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 and reduce energy loss.
Installation	Please refer to the ArmaFlex application manual for advice. ArmaFlex can be used together with ArmaFlex 520 adhesive and ArmaFix pipe hangers for a complete insulation system.

Property	Value / Assessment				Standard / Test method
Temperature range					
Service temperature	Min. °C		Max. °C		
	-50		105		
	Remarks		+85 °C if sheet or tape is glued to the object with its whole surface		
Thermal conductivity					
Declared thermal conductivity	θm	-20℃	±0℃	25℃	ASTM C518, EN ISO 8497, GB/T 10295, GB/T 10296
	$\lambda d \leq [W/(m·K)]$	0.032	0.034	0.036	
Fire Performance and Approvals					
Surface spread of flame	Class 1				BS 476 Part 7
Fire propagation for products	Fire propagation index, $I \leq 12$, Sub-index, $i_1 \leq 6$. Class 0 rating for achieving the above and Class 1 per BS 476 Part 7				BS 476 Part 6
Burning behaviour of building materials and products	Class B1				GB 8624
Surface flammability	Marine application: Low flame spread material				IMO 2010 FTP Code, Part 5
FM approved	Yes				FM 4924
Flammability					
Flammability of plastic materials	V-0 rating				UL 94
Fire performance					
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.				
Resistance to water vapour					
Water vapour diffusion resistance factor	$\mu \geq 10,000$				GB/T 17146, EN 12086, EN 13469
Water vapour permeability	$\leq 1.96 \times 10^{-11}$ g/(m·s·Pa)				GB/T 17146, EN 12086, EN 13469
Resistance to water					
Water absorption	$\leq 0.2\%$ by volume				ASTM C1763
Water absorption by vacuum	$\leq 0.5\%$ by volume				GB/T 17794
Mechanical properties					
Resilience after compression relief	$\geq 70\%$				GB/T 6669

Property	Value / Assessment	Standard / Test method
Weather and UV resistance		
Outdoor use	For UV protection, ArmaFinish Paint or Arma-Chek® covering system is required. For outside use, ArmaFlex should be protected within three days of installation.	
Health and environment		
Antimicrobial behaviour	Built-in Microban antimicrobial product protection in sheets	
Health aspects	Free of fibre and formaldehyde. Low volatile organic compounds (VOC) and total aldehyde. GREENGUARD Gold for even lower VOC and total chemical emissions.	UL 2818
Environmental aspects	Zero ODP and GWP. Complies with Restriction of Hazardous Substances Directive (RoHS).	
Environmental Product Declaration (EPD)	Type III EPD: Declaration number 4789125188.101.1, UL Environment.	ISO 14025
Green building assessment	Singapore Green Building Product Certified: "Excellent" rating.	
Other technical features		
Chemical resistance	Excellent resistance to ozone, oil and chemicals (consult product test list).	
Shelf life	Self-adhesive sheets, tubes and tapes: 1 year.	
Storage	Material shall be stored in dry, clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0 °C to 35 °C).	

Tube – standard. Black. 2.0m length

6 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
10	0.375	6	COB-06X010	10	6.00	2	308 m
22	0.875	8	COB-06X022	11	6.00	2	180 m
25	1.0		COB-06X025	25	6.00	2	144 m

Tube – standard. Black. 2.0m length

9 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
6	0.25		COB-09X006	6	9.00	2	312 m
10	0.375	6	COB-09X010	10	9.00	2	264 m
12	0.5		COB-09X012	12	9.00	2	220 m
15	0.625	8	COB-09X015	15	9.00	2	180 m
20	0.75		COB-09X020	20	9.00	2	144 m
22	0.875	15	COB-09X022	22	9.00	2	128 m
25	1.0		COB-09X025	25	9.00	2	108 m
28	1.125	20	COB-09X028	28	9.00	2	98 m
32	1.25		COB-09X032	32	9.00	2	84 m
35	1.375	25	COB-09X035	35	9.00	2	82 m
38	1.5		COB-09X038	38	9.00	2	72 m
42	1.625	32	COB-09X042	42	9.00	2	64 m
48	1.875	40	COB-09X048	48	9.00	2	56 m
54	2.125		COB-09X054	54	9.00	2	54 m
57	2.25		COB-09X057	57	9.00	2	54 m
60	2.375	50	COB-09X060	60	9.00	2	54 m

Tube – standard. Black. 2.0m length

13 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	EAN	Content [metric]
6	0.25		COB-13X006	6	13.00	2		180 m
10	0.375	6	COB-13X010	10	13.00	2		144 m
12	0.5		COB-13X012	12	13.00	2		128 m
15	0.625	8	COB-13X015	15	13.00	2		112 m
20	0.75		COB-13X020	20	13.00	2		90 m
22	0.875	15	COB-13X022	22	13.00	2		90 m
25	1.0		COB-13X025	25	13.00	2		80 m
28	1.125	20	COB-13X028	28	13.00	2		72 m
32	1.25		COB-13X032	32	13.00	2		64 m
35	1.375	25	COB-13X035	35	13.00	2		58 m
38	1.5		COB-13X038	38	13.00	2		54 m
42	1.625	32	COB-13X042	42	13.00	2		48 m
48	1.875	40	COB-13X048	48	13.00	2		42 m

Tube – standard. Black. 2.0m length

13 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	EAN	Content [metric]
54	2.125		COB-13X054	54	13.00	2		42 m
57	2.25		COB-13X057	57	13.00	2		36 m
60	2.375	50	COB-13X060	60	13.00	2		36 m
67	2.625		COB-13X067	67	13.00	2		36 m
76	3.0		COB-13X076	76	13.00	2		32 m
89	3.5	80	COB-13X089	89	13.00	2	7612207463590	24 m
108	4.25		COB-13X108	108	13.00	2		16 m
114	4.5	100	COB-13X114	114	13.00	2		16 m

Tube – standard. Black. 2.0m length

19 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
6	0.25		COB-19X006	6	19.00	2	96 m
10	0.375	6	COB-19X010	10	19.00	2	84 m
12	0.5		COB-19X012	12	19.00	2	84 m
15	0.625	8	COB-19X015	15	19.00	2	70 m
20	0.75		COB-19X020	20	19.00	2	60 m
22	0.875	15	COB-19X022	22	19.00	2	60 m
25	1.0		COB-19X025	25	19.00	2	50 m
28	1.125	20	COB-19X028	28	19.00	2	50 m
32	1.25		COB-19X032	32	19.00	2	40 m
35	1.275	25	COB-19X035	35	19.00	2	40 m
38	1.5		COB-19X038	38	19.00	2	36 m
42	1.625	32	COB-19X042	42	19.00	2	36 m
48	1.875	40	COB-19X048	48	19.00	2	30 m
54	2.125		COB-19X054	54	19.00	2	30 m
57	2.25		COB-19X057	57	19.00	2	28 m
60	2.375	50	COB-19X060	60	19.00	2	24 m
67	2.625		COB-19X067	67	19.00	2	22 m
76	3.0		COB-19X076	76	19.00	2	16 m
89	3.5	80	COB-19X089	89	19.00	2	12 m
108	4.25		COB-19X108	108	19.00	2	10 m
114	4.5	100	COB-19X114	114	19.00	2	10 m

Tube – standard. Black. 2.0m length

25 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
6	0.25		COB-25X006	6	25.00	2	60 m
10	0.375	6	COB-25X010	10	25.00	2	54 m
12	0.5		COB-25X012	12	25.00	2	48 m

Tube – standard. Black. 2.0m length

25 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
15	0.625	8	COB-25X015	15	25.00	2	40 m
20	0.75		COB-25X020	20	25.00	2	36 m
22	0.875	15	COB-25X022	22	25.00	2	36 m
25	1.0		COB-25X025	25	25.00	2	32 m
28	1.125	20	COB-25X028	28	25.00	2	32 m
32	1.25		COB-25X032	32	25.00	2	32 m
35	1.375	25	COB-25X035	35	25.00	2	30 m
38	1.5		COB-25X038	38	25.00	2	24 m
42	1.625	32	COB-25X042	42	25.00	2	24 m
48	1.875	40	COB-25X048	48	25.00	2	20 m
54	2.125		COB-25X054	54	25.00	2	20 m
57	2.25		COB-25X057	57	25.00	2	16 m
60	2.375	50	COB-25X060	60	25.00	2	20 m
67	2.625		COB-25X067	67	25.00	2	14 m
76	3.0		COB-25X076	76	25.00	2	16 m
89	3.5	80	COB-25X089	89	25.00	2	16 m
108	4.25		COB-25X108	108	25.00	2	8 m
114	4.5	100	COB-25X114	114	25.00	2	6 m
140		125	COB-25X140	140	25.00	2	6 m
168		150	COB-25X168	168	25.00	2	6 m
			COB-25X045				

Tube – standard. Black. 2.0m length

32 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
10	0.375	6	COB-32X010	10	32.00	2	36 m
12	0.5		COB-32X012	12	32.00	2	32 m
15	0.625	8	COB-32X015	15	32.00	2	32 m
20	0.75		COB-32X020	20	32.00	2	24 m
22	0.875	15	COB-32X022	22	32.00	2	24 m
25	1.0		COB-32X025	25	32.00	2	22 m
28	1.125	20	COB-32X028	28	32.00	2	22 m
32	1.25		COB-32X032	32	32.00	2	20 m
35	1.375	25	COB-32X035	35	32.00	2	18 m
38	1.5		COB-32X038	38	32.00	2	16 m
42	1.625	32	COB-32X042	42	32.00	2	16 m
45	1.75		COB-32X045	45	32.00	2	12 m
48	1.875	40	COB-32X048	48	32.00	2	12 m
54	2.125		COB-32X054	54	32.00	2	12 m
57	2.25		COB-32X057	57	32.00	2	12 m

Tube – standard. Black. 2.0m length

32 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
60	2.375	50	COB-32X060	60	32.00	2	12 m
67	2.625		COB-32X067	67	32.00	2	10 m
76	3.0		COB-32X076	76	32.00	2	10 m
89	3.5	80	COB-32X089	89	32.00	2	8 m
108	4.25		COB-32X108	108	32.00	2	6 m
114	4.5	100	COB-32X114	114	32.00	2	6 m

Tube – standard. Black. 2.0m length

40 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
10	0.375	6	COB-40X010	10	40.00	2	24 m
12	0.5		COB-40X012	12	40.00	2	24 m
15	0.625	8	COB-40X015	15	40.00	2	22 m
20	0.75		COB-40X020	20	40.00	2	18 m
22	0.875	15	COB-40X022	22	40.00	2	18 m
25	1.0		COB-40X025	25	40.00	2	18 m
28	1.125	20	COB-40X028	28	40.00	2	16 m
32	1.25		COB-40X032	32	40.00	2	16 m
35	1.375	25	COB-40X035	35	40.00	2	12 m
38	1.5		COB-40X038	38	40.00	2	12 m
42	1.625	32	COB-40X042	42	40.00	2	12 m
48	1.875	40	COB-40X048	48	40.00	2	12 m
54	2.125		COB-40X054	54	40.00	2	10 m
60	2.375	50	COB-40X060	60	40.00	2	10 m
67	2.625		COB-40X067	67	40.00	2	8 m
76	3.0		COB-40X076	76	40.00	2	8 m
89	3.5	80	COB-40X089	89	40.00	2	8 m
108	4.25		COB-40X108	108	40.00	2	6 m
114	4.5	100	COB-40X114	114	40.00	2	4 m
140		125	COB-40X140	140	40.00	2	4 m
168		150	COB-40X168	168	40.00	2	4 m

Tube – standard. Black. 2.0m length

50 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
10	0.375	6	COB-50X010	10	50.00	2	12 m
12	0.5		COB-50X012	12	50.00	2	12 m
15	0.625	8	COB-50X015	15	50.00	2	12 m
20	0.75		COB-50X020	20	50.00	2	12 m
22	0.875	15	COB-50X022	22	50.00	2	12 m

Tube – standard. Black. 2.0m length

50 mm

Pipe Ø [mm]	Copper pipe outer diameter [inch]	Steel pipe DN	Item	Inner diameter (minimum) [mm]	Average thickness [mm]	Length [m]	Content [metric]
25	1		COB-50X025	25	50.00	2	12 m
28	1.125	20	COB-50X028	28	50.00	2	12 m
32	1.25		COB-50X032	32	50.00	2	10 m
35	1.375	25	COB-50X035	35	50.00	2	10 m
38	1.5		COB-50X038	38	50.00	2	8 m
42	1.625	32	COB-50X042	42	50.00	2	8 m
48	1.875	40	COB-50X048	48	50.00	2	8 m
54	2.125		COB-50X054	54	50.00	2	8 m
60	2.375	50	COB-50X060	60	50.00	2	8 m
67	2.625		COB-50X067	67	50.00	2	6 m
76	3.0		COB-50X076	76	50.00	2	4 m
89	3.5	80	COB-50X089	89	50.00	2	4 m
108	4.25		COB-50X108	108	50.00	2	4 m
114	4.5	100	COB-50X114	114	50.00	2	4 m
140		125	COB-50X140	140	50.00	2	4 m
168		150	COB-50X168	168	50.00	2	4 m

Sheet – standard

Item	Insulation thickness [mm]	Width (m)	Length [m]	Content [metric]
COB-09150/E	9	1.5	10	15 m²
COB-13150/E	13	1.5	8	12 m²
COB-19150/E	19	1.5	6	9 m²
COB-25122/E	25	1.22	4	4.88 m²
COB-25150/E	25	1.5	4	6 m²
COB-30150/E	30	1.5	3	4.5 m²
COB-32150/E	32	1.5	3	4.5 m²
COB-40122/E	40	1.22	3	3.66 m²
COB-50122/E	50	1.22	2.5	3.05 m²

Tape – insulation. Black

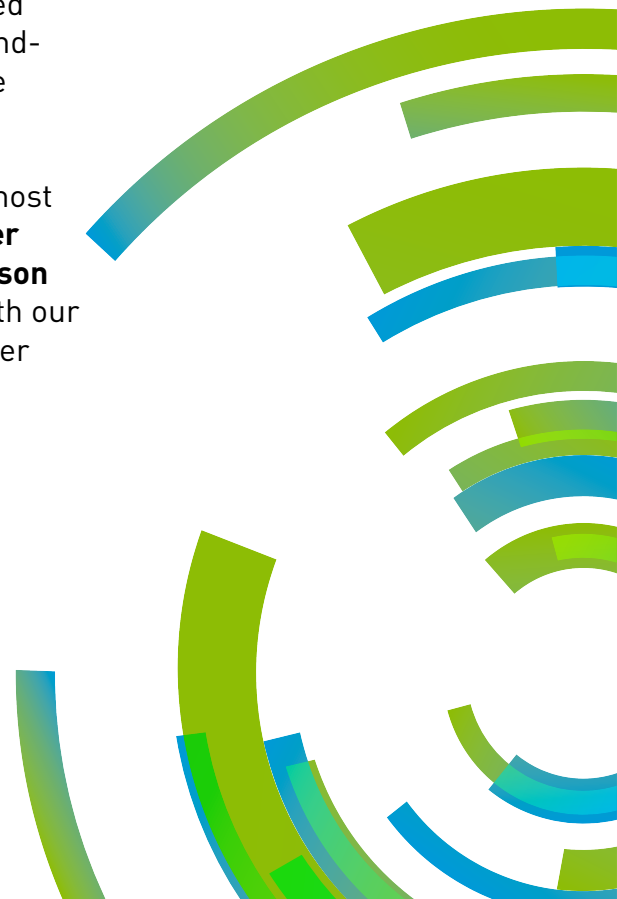| Item	Description	Content [quantity]
AS-ATAPECOB-9M	ArmaFlex Class 0 insulation tape (3mm thickness x 50mm width x 9.14 m)	24 roll

Adhesives and Cleaners

Item	Description	Content [quantity]
AS-AD5201E	4 cans of 1 Gallon (3.78litres) ArmaFlex 520 adhesive in a carton	4 tin
AS-AD520HL	12 cans of 500ml ArmaFlex 520 adhesive in a carton	12 tin

OUR CUSTOMERS EXPECT THE BEST. WE WORK HARD TO GO BEYOND THAT AND EXCEED THEIR EXPECTATIONS.

Our extensive product portfolio has been designed and developed to meet the specific requirements of our customers and their end-users. Discover how Armacell is making a difference around the world with our products in the following pages.

To offer our customers the best service, we hold stocks of our most popular products. **Lead times and form of delivery may vary per product and per country, and may be affected during peak season and holidays.** We aim to create open lines of communication with our customers, so please contact Customer Services who can answer questions about our service commitment to you.

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.

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