

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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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 / Assessmen	Standard / Test method					
Temperature range							
Service temperature	Min. °C		Max. °C	Max. °C			
	-50		105		_		
	Remarks		+85 °C if sheet or whole surface	+85 °C if sheet or tape is glued to the object with its whole surface			
Thermal conductivity							
Declared thermal conductivity	θm	-20°C	±0°C	25℃	ASTM C518, EN ISO 8497, — GB/T 10295, GB/T 10296		
	λd ≤ [W/(m⋅K)]	0.032	0.034	0.036			
Fire Performance and Approval	ls						
Surface spread of flame	Class 1				BS 476 Part 7		
Fire propagation for products	Fire propagation index, $I \le 12$, Sub-index, $i_1 \le 6$. 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 fla	ming droplets.					
Others	Registered by the Fire Product conforms to Singapore.						
Resistance to water vapour					1		
Water vapour diffusion resistance factor	μ > 10,000				GB/T 17146, EN 12086, EN 13469		
Water vapour permeability	< 1.96 x 10 ⁻¹¹ g/(m⋅s⋅Pa)				GB/T 17146, EN 12086, EN 13469		
Resistance to water							
Water absorption	≤ 0.2% by volume	ASTM C1763					
Water absorption by vacuum	≤ 0.5% by volume				GB/T 17794		
Mechanical properties							
Resilience after compression relief	> 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 $^{\circ}$ C to 35 $^{\circ}$ C).	

Adhesives and Cleaners

Item	Description	Content [quantity]
AS-AD5201E	D5201E 4 cans of 1 Gallon (3.78litres) ArmaFlex 520 adhesive a carton	
AS-AD520HL	12 cans of 500ml ArmaFlex 520 adhesive in a carton	12 tin

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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.

