



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

www.armacell.com.sg



 **armacell**[®]
MAKING A DIFFERENCE AROUND THE WORLD

FOR SAFETY, EFFICIENCY &
BETTER INDOOR AIR QUALITY

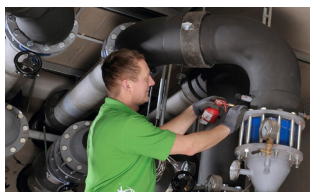
ArmaFlex Class 0

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 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	Øm	-20°C	±0°C	25°C	ASTM C518, EN ISO 8497, GB/T 10295, GB/T 10296
	$\lambda d \leq [W/[m \cdot K]]$	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	$\leq 1.96 \times 10^{-11} \text{ g}/[\text{m} \cdot \text{s} \cdot \text{Pa}]$				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).	

All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. Despite taking every precaution to ensure that said data and technical information are up to date, Armacell does not make any representation or warranty, express or implied, as to the accuracy, content or completeness of said data and technical information. Armacell also does not assume any liability towards any person resulting from the use of said data or technical information. Armacell reserves the right to revoke, modify or amend this document at any moment. 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. This document does not constitute nor is part of a legal offer to sell or to contract.

At Armacell, your trust means everything to us, so we want to let you know your rights and make it easier for you to understand what information we collect and why we collect it. If you would like to find out about our processing of your data, please visit our Data Protection Policy.

Trademarks followed by © or ™ are trademarks of the Armacell Group. © Armacell, 2024. All rights reserved.

TDS | 052024 | en-SG

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.

For more information, please visit:
www.armacell.com


MAKING A DIFFERENCE AROUND THE WORLD