

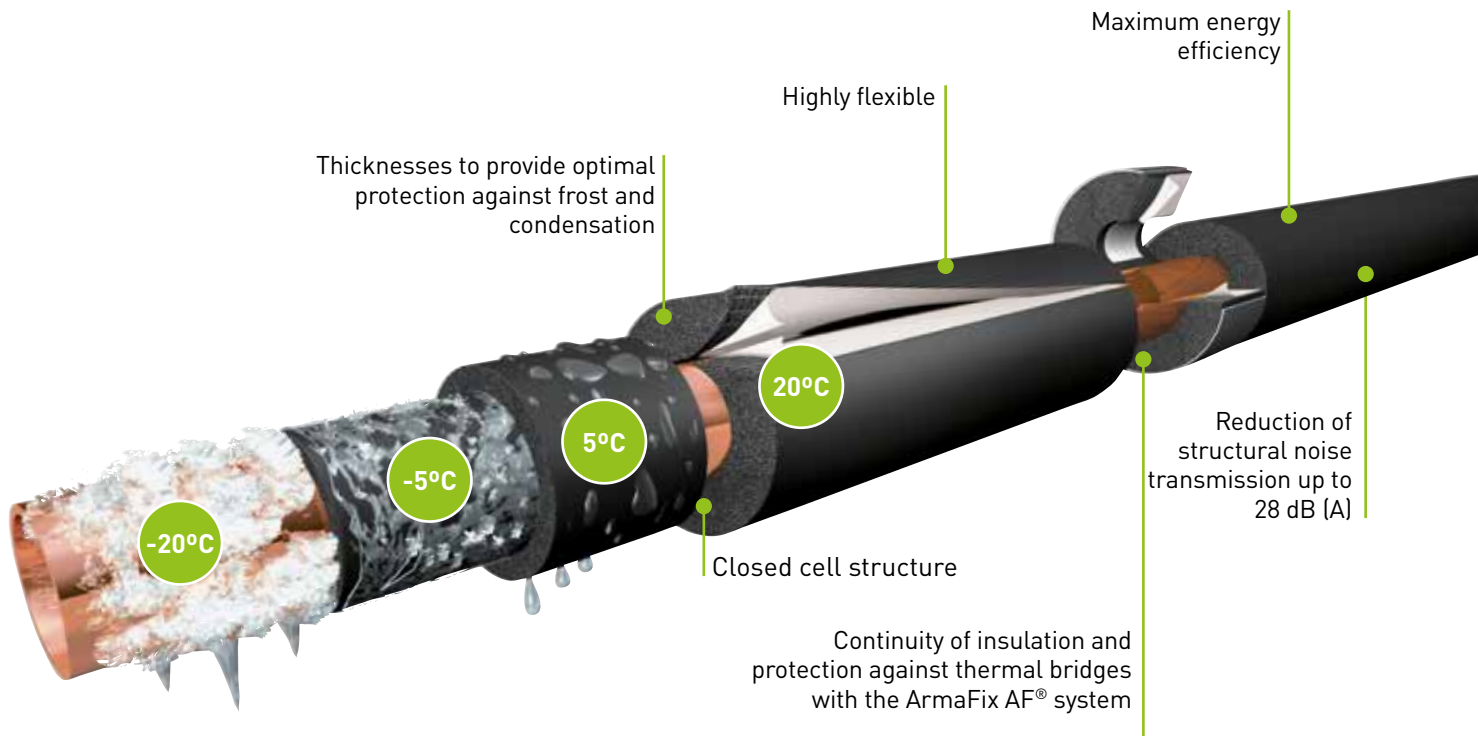
AF/ArmaFlex[®] Class 0



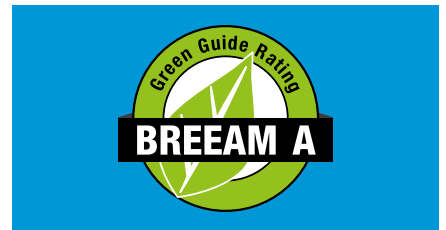
THE FLEXIBLE & SUSTAINABLE INSULATION SYSTEM FOR ENERGY EFFICIENCY & CONDENSATION CONTROL – TRUSTED FOR OVER 40 YEARS

- Closed cell material
- Built in water vapour barrier reducing the risk of corrosion under insulation (CUI)
- FM approved
- Built-in Microban[®] antimicrobial protection reduces mould and bacteria growth
- Low thermal conductivity value (0.033 W/m • K @ 0°C)
- Euroclass B/B_L-s3, d0
- BRE Green Guide A rating
- CE marked, EN 14304
- Highest system reliability when installed with ArmaFix pipe supports and ArmaFlex adhesives
- Available in handy self-seal tube format to speed up install times

PROPERTIES



- Euroclass B_L-s3, d0
 - $\lambda_{0^\circ\text{C}} \leq 0,033 \text{ W}/(\text{m}\cdot\text{K})$
 - $\mu \geq 10,000$
- for more information consult technical data



TECHNICAL DATA

Flexible closed-cell thermal insulation with high resistance to water vapour diffusion, low thermal conductivity and built-in Microban® antimicrobial protection.

Material type	Flexible, closed-cell insulation material with built-in Microban® antimicrobial protection.
Colour	Black
Material information	Self-adhesive coating: pressure-sensitive adhesive coating on modified acrylate basis with mesh structure. Covered with polyethylene film.
Applications	Insulation/protection to control condensation, reduce energy loss and protect against frost on pipes, air ducts, vessels (incl. elbows, fittings, flanges etc). Suitable for hot and cold water services, chilled water lines, heating systems, air conditioning ductwork and refrigerated pipework.
Special features	MCCP-free
Safety & environment	Type III Environmental product Declaration (EPD): Declaration # EPD-ARM-20150110-IBB1-DE, Insitut Bauen und Umwelt e.V. (IBU).
Assembly	Lightweight and flexible. Closed cell structure means no additional vapour barrier is required.
Remarks	Declaration Of Performance (DOP) is available in accordance with Article 7(3) of regulation (EU) No 305/2011

Property	Value/Assessment	Test Ref	Standards & Remarks
Temperature Range			
Max service temperature	+110°C (+85°C if sheet or tape is glued to a flat object)	EU 5709	Tested acc to EN 14706, EN 14707 & EN 14304
Min service temperature	-50°C (for temperatures below -50 °C please contact our technical department)		
Thermal Conductivity			
Tubes 6-19mm Sheet & tape 3-32mm	$\lambda \text{ } 0^{\circ}\text{C} \leq 0.033 \text{ W}/(\text{m}\cdot\text{K}) \quad [33+0.1 \cdot \varrho_m + 0.0008 \cdot \varrho_m^2]/1000$	EU 5709	Declared acc. to EN ISO 13787. Tested acc. to EN12667 & EN ISO 8497
Tubes 25-32mm	$\lambda \text{ } 0^{\circ}\text{C} \leq 0.036 \text{ W}/(\text{m}\cdot\text{K}) \quad [36+0.1 \cdot \varrho_m + 0.0008 \cdot \varrho_m^2]/1000$		
Water Vapour Diffusion Resistance			
Tubes 6-19mm Sheet 6-32mm	$\mu \geq 10,000$	EU 5709	Tested acc.to EN 12086 & EN 13469
Tubes 25-32mm	$\mu \geq 7,000$		
Fire Performance			
Tubes	B _L -s3, d0	EU 5709	Classified acc. to EN 13501-1. Tested acc. to EN 13823 & EN ISO 11925-2
Sheets & tapes	B-s3, d0		
Surface Spread of Flames	Class 1	GB 6935 & GB 6936	Tested acc. to BS 476 Part 7:1997
Fire Propagation	Total Index Performance (I) ≤ 12 Sub Index (i _r) ≤ 6		Tested acc. to BS 476 Part 6:1989
Fire performance acc. to Building Regulations	Class 0		
Fire Class	FM Approved	D5551	Tested acc.to UBC26-3 Class No. 4924
Fire resistance on metal pipes	EI30 - EI90	EU5584	Classified acc. to EN 13501-2. Tested acc.to EN1366-3
Marine approval	DNV-GL Approval	EU5928	Tested acc. to IMO 2010 FTP code
Practical fire behaviour	Self-extinguishing, does not drip & does not spread flames		
Other technical features			
Dimensions & tolerances	In accordance with EN 14304, table 1	EU 5709	Tested acc. to EN 822, EN 823 & EN 13467
UV resistance	For protection against UV radiation use ArmaFinish 99 paint. Alternatively use HT/ArmaFlex, ArmaFlex Tuffcoat or Arma-Chek Silver		
Health aspects	ODP & GWP rating 0		
Storage & shelf life	Self-adhesive tapes, sheets & tubes	1 year	
Antimicrobial behaviour	Built-in Microban® active antimicrobial protection	No fungal growth observed	

Tube Sizing Chart

Length - 2m, Colour - Black, Antimicrobial protection - Microban®

Pipe max. Outside Ø (mm)	Inner tube. Ø min (mm)	Inner tube. Ø max (mm)	6mm INSULATION THICKNESS			9mm INSULATION THICKNESS		
6	7	9						
10	11	13						
12	13	15						
15	16	18						
20	21	23						
22	23	25						
28	29	31.5						
35	36	38.5						
42	43	46						
48	49	51.5						
54	55	58						
60	61	64						

Pipe max. Outside Ø (mm)	Inner tube. Ø min (mm)	Inner tube. Ø max (mm)	13mm INSULATION THICKNESS			19mm INSULATION THICKNESS		
6	7	9						
10	11	13						
12	13	15						
15	16	18						
18	19	21						
20	21	23						
22	23	25						
25	26	28						
28	29	31.5						
32	33	35.5						
35	36	38.5						
42	43	46						
48	49	51.5						
54	55	58						
60	61	64						
64	65	67						
67	68	71						
76	77	80						
80	81	84						
89	90	93						

Pipe max. Outside Ø (mm)	Inner tube. Ø min (mm)	Inner tube. Ø max (mm)	25mm INSULATION THICKNESS			32mm INSULATION THICKNESS		
12	13	15						
15	16	18						
20	21	23						
22	23	25						
28	29	31.5						
35	36	38.5						
42	43	46						
48	49	51.5						
54	55	58						
60	61	64						
67	68	71						
76	77	80						
80	81	84-					-	
89	90	93						

DOMESTIC BUILDING SERVICES COMPLIANCE GUIDE

Thickness required to meet Domestic Building Services Compliance Guide / Part L max permissible heat losses					
Pipe max. outside Ø (mm)	Max Permissible Heat Loss (W/m)	Thickness	Code	m/carton	
8	7.06	13			
10	7.23	13			
12	7.35	19			
15	7.89	19			
22	9.12	25			
28	10.07	25			
35	11.08	25			
42	12.19	25			
54	14.12	32			

Other information and remarks		
Length tolerance for tubes	±1.5%	
Thickness tolerance for tubes	≤ 8mm	± 1mm
	9 - 18mm	± 1.5mm
	19 - 31mm	± 2.5mm
	> 31mm	± 3mm