

TECHNICAL DATA - AF/ARMAFLEX EVO

Brief description	Flexible elastomeric foam with improved fire-retardant properties, low smoke generation, closed-cell insulation material structure and built-in Microban antimicrobial protection. For use in HVAC, refrigeration and process equipment application.
Material type	Elastomeric foam based on synthetic rubber. Factory-made flexible elastomeric foam (FEF), according to EN 14304.
Additional material information	Self-adhesive coating: pressure-sensitive adhesive coating on modified acrylate basis with mesh structure, covered with polyethylene foil. Traces of silicon can be found on the protection paper/foil used to protect self-adhesive closures.
Product colour range	Black
Special features	This product is infused with Microban antimicrobial protection to provide additional assurance against mould and mildew growth in the insulation.
Applications	Insulation/protection for pipes, air ducts, vessels (including elbows, fittings, flanges, etc.) of air-conditioning/refrigeration and process equipment to prevent condensation and save energy.
Installation	Please refer to the ArmaFlex application manual for advice.
Declaration of performance	Declaration of Performance in accordance with Article 7(3) of Regulation (EU) No 305/2011 is available at www.armacell.com/DoP .

Property	Value / Assessment			Standard / Test method
Temperature range				
Service temperature	Min. °C ¹	Max. °C ²		EN 14706, EN 14707, EN 14304
	-50	110		
	Remarks	+85 °C if sheet or tape is glued to the object with its whole surface +85 °C for tapes		
Thermal conductivity				
Declared thermal conductivity	Øm	0 °C	40°C	EN ISO 13787, EN ISO 8497
	λd ≤ [W/(m·K)]	0,033	0,038	
	Range	Tubes (6 - 25 mm)		
	Formula	λd = [33 + 0,1· Øm + 0,0008 · Øm²]/1000		
Declared thermal conductivity	Øm	0 °C	40°C	EN ISO 13787, EN 12667, EN ISO 8497
	λd ≤ [W/(m·K)]	0,036	0,041	
	Range	Tubes (>25 mm) as well as sheets and tapes (3 - 32mm)		
	Formula	λd = [36 + 0,1· Øm + 0,0008 · Øm²]/1000		
Declared thermal conductivity	Øm	0°C	40°C	EN ISO 13787, EN 12667
	λd ≤ [W/(m·K)]	0,037	0,042	
	Range	Sheets (> 32 mm - 50 mm)		
	Formula	λd = [37 + 0,1· Øm + 0,0008 · Øm²]/1000		
Fire Performance and Approvals				
Reaction to fire	Tubes: B(L)-s2, d0 Sheets, Tapes: B-s2,d0 Tubes/sheets with ArmaFix AF: B(L)-s2,d0			EN 13823, EN 13501-1, EN ISO 11925-2
Surface flammability ³	low-flammable - 2010 FTP-Code (MED 96/98/EC, Module D)			IMO 2010 FTP Code, Part 5
FM approved	4924 - Pipe and duct insulation			UBC26-3
Passive fire protection				
Fire resistance of elements of construction	EI 30 - EI 90			EN 13501-2, EN 1366-3

Property	Value / Assessment	Standard / Test method
UL standards		
UL 94 5VA ⁴	Pass (tubes and sheets ≥ 3.0 mm)	UL 94, IEC 60695-11-10, UL 746B, UL 746 A
Fire performance		
Practical fire behaviour	Self-extinguishing, does not drip, does not spread flames, low smoke development	
Resistance to water vapour		
Water vapour diffusion resistance factor	Tubes (6 - 25 mm): $\mu \geq 10,000$ Tubes (>25mm); Sheets (3 - 50mm) and Tape: $\mu \geq 7,000$	EN 12086, EN 13469
Physical attributes		
Dimensions and tolerances	in accordance with EN 14304, table 1	EN 822, EN 823, EN 13467
Weather and UV resistance		
UV resistance ⁵	Protection against UV-radiation is necessary (see Technical Bulletin no. 142).	
Health and environment		
Antimicrobial behaviour	In-built Microban active antimicrobial protection: No fungal growth observed	EN ISO 846, VDI 6022
Environmental Product Declaration (EPD)	Type III Environmental Product Declaration (EPD)	ISO 14025, EN 15804+A2
Other technical features		
Adhesion and sealing	ArmaFlex ECO 550 and ArmaFlex 525 is the certified adhesive for this product. However, ArmaFlex 520 adhesive can be used for tubes.	
Shelf life	Self-adhesive tapes, self-adhesive sheets, self-adhesive tubes: 1 year	
Storage	Can be stored in dry, clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0 °C – 35 °C).	

¹For use in temperatures beyond the maximum and minimum service temperature range indicated in the technical data table, please contact our Customer Service Centre.

²+85 °C, for products with a self-adhesive layer.

³According to IMO 2010 FTP Code annex 2, clause 2.2 a fire technical test for smoke density and toxicity is not necessary.

⁴Only for products without self-adhesive-layer.

⁵If ArmaFlex is used outdoors or in applications under UV radiation, it should be protected with a covering such as ArmaClad Arma-Chek within 3 days of installation.