

# AF/Armaflex®

THE FIRST CHOICE FOR PROFESSIONAL  
INSTALLATIONS



- Increases equipment life cycle
- High flexibility and ease of installation
- Reliable condensation control and prevention of corrosion under insulation (CUI)
- Extended system warranty possible

**EPD**   
Environmental Product Declaration

**FM**  
**APPROVED**



## Technical Data - AF/Armaflex

Brief description	Highly-flexible, closed-cell insulation material with high water vapour diffusion resistance, low thermal conductivity and built-in Microban® antimicrobial protection.
Material type	Elastomeric foam based on synthetic rubber. Factory made flexible elastomeric foam (FEF) according to EN 14304.
Colour	black
Material Special 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.
Applications	Insulation / protection for pipes, air ducts, vessels (incl. elbows, fittings, flanges etc.) of air-conditioning / refrigeration and process equipment to prevent condensation and save energy. Structure-borne noise reduction in service-water and waste-water installations.
Special Features	Increasing insulation wall thicknesses for tubes ensures that the surface temperature is maintained as the pipe diameter is increased.
Safety and Environment	Type III Environmental Product Declaration (EPD): Declaration number "EPD-ARM-20150060-IBB1-DE", Institut Bauen und Umwelt e.V. (IBU)
Remarks	Declaration of Performance is available in accordance with Article 7(3) of Regulation (EU) No 305/2011 on our homepage: <a href="http://www.armacell.com/DoP">www.armacell.com/DoP</a>

Property	Value/Assessment				Test <sup>1</sup>	Special Remark	
Temperature Range							
Temperature Range	max. service temperature		+ 110 °C		(+ 85 °C if sheet or tape is glued to the object with its whole surface.)	EU 5661	Tested acc. to EN 14706, EN 14707 and EN 14304
	min. service temperature <sup>1</sup>		-50 °C				
Thermal Conductivity							
Thermal Conductivity	$\vartheta_m$		+/-0 °C		$\lambda =$	EU 5661	Declared acc. to EN ISO 13787 Tested acc. to EN 12667 EN ISO 8497
	Tubes (AF-1 to AF-4)	$\lambda \leq 0,033$	W/(m · K)		$[33 + 0,1 \cdot \vartheta_m + 0,0008 \cdot \vartheta_m^2]/1000$		
	Tubes (AF-5 to AF-6)	$\lambda \leq 0,036$	W/(m · K)		$[36 + 0,1 \cdot \vartheta_m + 0,0008 \cdot \vartheta_m^2]/1000$		
	Sheets, strips, tape (AF-03MM to AF-32MM)	$\lambda \leq 0,033$	W/(m · K)		$[33 + 0,1 \cdot \vartheta_m + 0,0008 \cdot \vartheta_m^2]/1000$		
	Sheets (AF-50MM)	$\lambda \leq 0,036$	W/(m · K)		$[36 + 0,1 \cdot \vartheta_m + 0,0008 \cdot \vartheta_m^2]/1000$		
Water vapour diffusion resistance							
Water vapour diffusion resistance	Sheets (AF-03MM to AF-32MM) and Tubes (AF-1 to AF-4)		$\mu$	$\geq$	10.000	EU 5661	Tested acc. to EN 12086 and EN 13469
	Sheets (AF-50MM) and Tubes (AF-5 to AF-6)		$\mu$	$\geq$	7.000		
Fire performance							
Reaction to fire	tubes		B <sub>L</sub> -s3, d0			EU 5661	Classified acc. to EN 13501-1 Tested acc. to EN 13823 EN ISO 11925-2
	sheets		B-s3,d0				
	tape		B-s3,d0				
Other Fire Class	UL - approved					UL: EU 5837 FM: EU 5607 Ship Building: D2406, D 5555, EU 5474	UL: Tested according to UL94, IEC 60695 and Can/CSA-C.22.2 No0.17., UL 746C FM: Tested according to UBC26-3, Class No.4924 Ship Building: Classified acc. to MED 96/98/EC MODULE D
	FM - approved						
	Ship Building		low-flammable - 2010 FTP-Code				
Practical Fire Behaviour	Self-extinguishing, does not drip, does not spread flames						
Fire resistance of structural element	EI 30 - EI 90					EU 5661 EU 5584	Classified acc. to EN 13501-2 Tested acc. to EN 1366-3
Acoustic Performance							
Reduction of structure-borne sound transmission	Insulation effect		$\leq 28$ dB(A)			D 3660	Tested acc. to EN ISO 3822-1
Weighted sound absorption coefficient $\alpha_w$	$\leq 0,45$					D 4763	Tested acc. to EN ISO 354

## Technical Data - AF/Armaflex

Other technical features			
Dimensions and tolerances	In accordance with EN 14304, table 1	EU 5661	Tested acc. to EN 822, EN 823, EN 13467
UV resistance <sup>2</sup>	Protection against UV-radiation is necessary.		
Storage & Shelf life	Self-adhesive tapes, self-adhesive sheets, self-adhesive tubes, stripes: 1 year		Can be stored in dry, clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0 °C – 35 °C).
Antimicrobial behaviour	In-built Microban® active antimicrobial protection: No fungal growth observed	D 4640 D 4641	Tested acc. to ASTM G21 and ASTM C 1338
AGI Designation Code	Tubes (AF-1 to AF-4): 36.12.01.07.01 Tubes (AF-5 to AF-6): 36.12.02.07.01 Sheets ((AF-03MM to AF-32MM): 36.07.01.06.01 Sheets (AF-50MM): 36.07.02.06.01		

1. For temperatures below -50 °C please contact our Customer Service Center to request for the corresponding technical information.

2. If Armaflex is applied under UV-radiation the material must be protected within 3 days with a covering or painting.

\*1 Further documents such as test certificates, approvals and the like can be requested using the registration number given.

All data and technical information are based on results achieved under typical application conditions. Recipients of this information should, in their own interest and responsibility, clarify with us in due time whether or not the data and information apply to the intended application area. Installation instructions are available in our Armaflex installation manual. Please consult our Customer Service Center before insulating stainless steels. For some refrigerants the discharge temperature may exceed +110 °C, please consult our Customer Service Center for further information.

www.armacell.es • info.es@armacell.com