

SH/Armaflex®

PROFESSIONAL HEATING AND
PLUMBING SOLUTION



- Complete system solution
- Fast return on investment
- Outstanding energy saving
- Range meets energy regulations

EPD
Environmental Product Declaration

PROTECTION THAT LIVES ON
MICROBAN

FM
APPROVED

SH/ARMAFLEX ACTIVE MICROBAN® ANTIMICROBIAL PROTECTION

When microbes come in contact with the insulation surface, MICROBAN® protection penetrates the cell wall of the microorganism, disabling its ability to function, grow and reproduce. Because the protection is built in during the manufacturing process, it will not wash off or wear away. This gives products with MICROBAN® technology an added level of protection against mould and mildew, thus positively contributing to the indoor air quality of the surrounding ambients. Insulation material equipped with MICROBAN® is therefore the ideal long-term solution for sanitary and heating systems in public buildings such as schools, hospitals, elderly homes, offices and airports.

PROTECTION THAT LIVES ON

MICROBAN®

ENERGY SAVINGS

Since the European Energy Performance of Buildings Directive (EPBD), the requirements of energy efficiency for both new and refurbished buildings increased. With this, the energy consumption levels became more visible and transparent to owners, tenants and users through a building certification, as an indispensable part of the building documentation. Correct insulation of heating and sanitary pipes is critical for the optimum energy performance of a building - which is ensured by the use of the SH/Armaflex range.

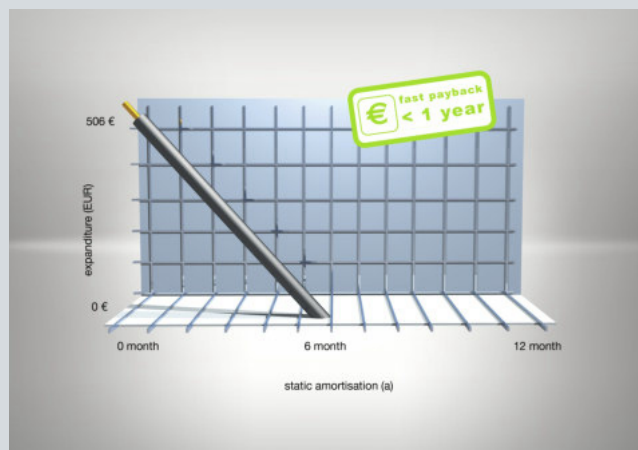


INVESTMENT PAYBACK

The static amortisation of the initial costs by using SH/Armaflex 25 mm is less than one year.

- compared to initial situation of noninsulated pipes
- domestic hot water and heating (70/55 °C)
- pipe lines located in unheated area
- fuel costs 0,55 € / liter

Payback time in less than 6 months!



COMPLETE SYSTEM

Armacell offers a complete carefully considered and coordinated system solution for any professional insulation challenge: SH/Armaflex standard, self-adhesive and endless tubes and sheets, tape and accessories. Armafix X pipe supports to avoid thermal bridging, Armaflex Protect fire barrier as well as Armaprotect 1000 firestop filler.

The wide range of specially developed accessories such as the new generation of adhesives and the Armaflex Toolbox for applying Armaflex insulation materials make installation even easier.



Technical Data - SH/Armaflex

Brief description	Highly flexible closed-cell extruded insulation material with low thermal conductivity to minimise energy losses on heating and plumbing installations.
Material type	Elastomeric foam based on synthetic rubber. Factory made flexible elastomeric foam (FEF) according to EN 14304.
Colour	grey
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 of pipes (heating, domestic hot and cold water, sewage water, drain water) and other heating and plumbing installations to optimally prevent heat losses and save energy.
Special Features	SH/Armaflex is a closed cell insulation material for heating and plumbing systems. Its water vapour diffusion resistance value is sufficient to comply with the condensation control requirements for these applications and especially for cold water pipelines.
Safety and Environment	Meets the requirements for sustainable construction such as LEED in combination with Armaflex SF990 VOC free adhesive . Type III Environmental Product Declaration (EPD): Declaration number "EPD-ARM-20150107-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: www.armacell.com/DoP

Property	Value/Assessment	Test ^{*1}	Special Remark
Temperature Range			
Temperature Range	max. service temperature ¹ +110 °C min. service temperature as usual in heating and plumbing systems	(+85 °C If sheet or tape is glued to the object with all over surface coverage.) EU 5662	Tested acc. to EN 14706, EN 14707 and EN 14304
Thermal Conductivity			
Thermal Conductivity	ϑ_m 40 °C $\lambda =$	EU 5662	Declared acc. to EN ISO 13787 Tested acc. to EN 12667 and EN ISO 8497
tubes SH-10x12 up to SH-10x60	$\lambda \leq 0,036$ W/(m · K)	$[32 + 0,1 \cdot \vartheta_m + 0,0008 \cdot (\vartheta_m - 40)^2] / 1000$	
all other tubes	$\lambda \leq 0,040$ W/(m · K)	$[36 + 0,1 \cdot \vartheta_m + 0,0008 \cdot (\vartheta_m - 40)^2] / 1000$	
sheets	$\lambda \leq 0,040$ W/(m · K)	$[36 + 0,1 \cdot \vartheta_m + 0,0008 \cdot (\vartheta_m - 40)^2] / 1000$	
Fire performance			
Reaction to fire ²	tubes up to 45 mm B _L -s3, d0 tubes > 45 mm C _L -s3, d0 sheets 10 mm C-s3, d0 sheets 20 mm D-s3, d0 tape B-s3, d0	EU 5662	Classified acc. to EN 13501-1 Tested acc. to EN 13823 and EN ISO 11925-2
Other Fire Class	FM-approved up to 45 mm	D 5607	
Practical Fire Behaviour	Self-extinguishing, does not drip, does not spread flames		
Fire resistance of structural element	EI 30 - EI 120	EU 5662 EU 5584	Classified acc. to EN 13501-2 Tested acc. to EN 1366-3
Acoustic Performance			
Reduction of structure-borne sound transmission	Insulation effect ≤ 28 dB(A)	D 3660	Tested acc. to DIN 52219 and EN ISO 3822-1
Other technical features			
Dimensions and tolerances	In accordance with EN 14304, table 1	EU 5662	Tested acc. to EN 822, EN 823, EN 13467
UV resistance	Protection against UV-radiation is necessary. See Disclaimer.		
Storage & Shelf life	Tapes and tubes, self-adhesive: 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		
AGI Designation Code	tubes 10x12 -10x60 36.12.02.06.01 other tubes 36.12.04.07.01 sheets 36.07.04.06.01		

1. Shall the insulation be glued with its whole surface directly onto the object and the surface temperature of the object exceeds +85 °C, (a base layer of) HT/Armaflex substrate should be used.

2. The reaction to fire classification is valid on metal surfaces.

*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 outside use, Armaflex should be protected with Armafinish Paint or Arma-Chek covering within 3 days of installation.