

# Armaflex® XG

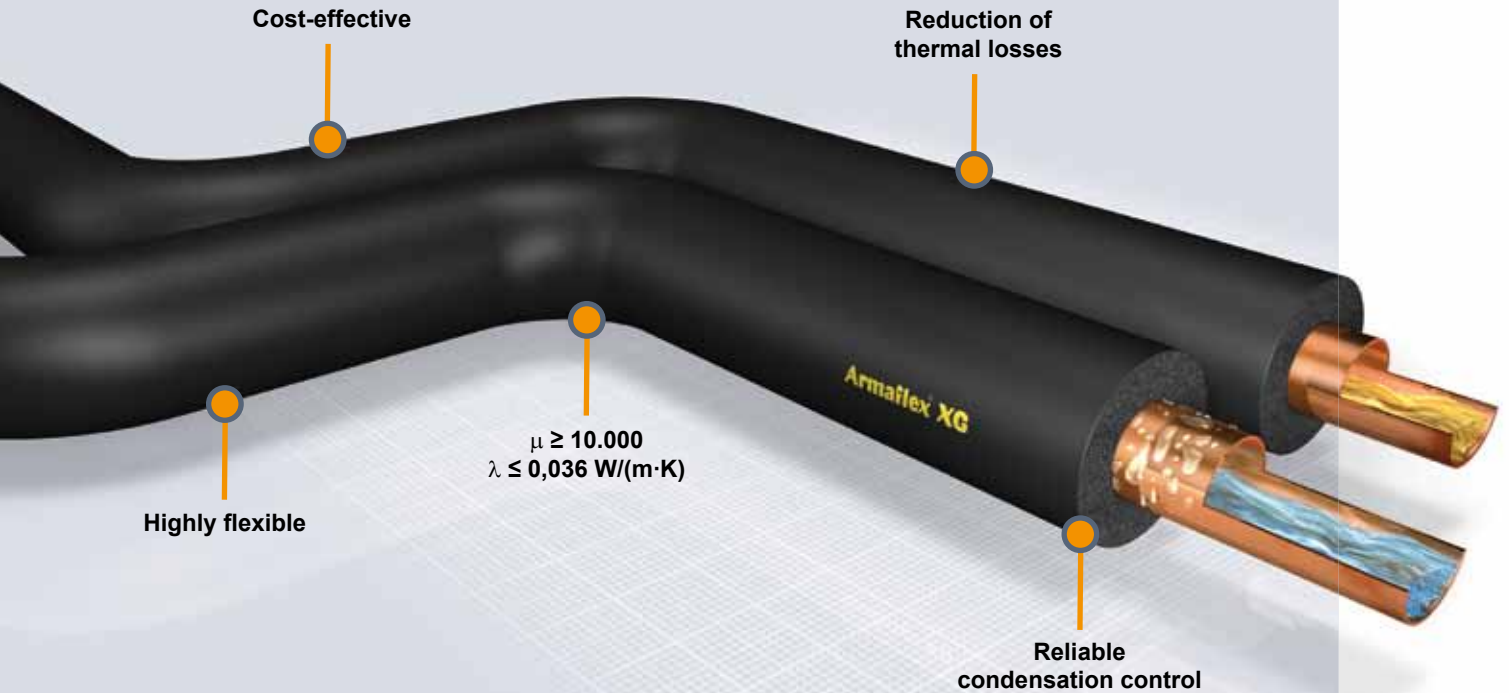
## ▶ Armaflex® XG

### THE VERSATILE FLEXIBLE INSULATION

ARMAFLEX® XG – the economical flexible insulation for condensation control and reduction of thermal losses in air-conditioning and heating & plumbing systems.



## Efficient condensation control and reduction of thermal losses.



### Your benefits:

Armaflex® XG is a flexible thermal insulation material for condensation control in air-conditioning and refrigeration installations. It is also suitable for reducing thermal losses in heating and plumbing systems. The combination of its technical properties – a low thermal conductivity and a high resistance to water vapour transmission – and its competitive price make it a cost-effective energy-saving solution. The Armaflex® XG range covers the majority of pipes used in these types of installations, including thermoplastic pipes.



Air-conditioning



Ventilation



Heating & plumbing

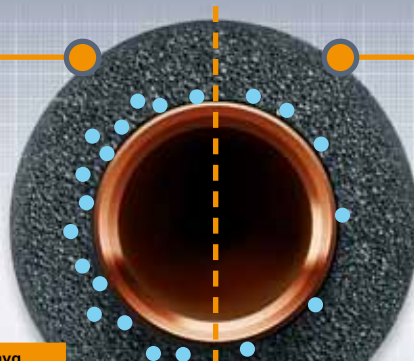
### Armaflex XG long term condensation control and energy saving

#### Alternative insulation brands

$$\mu \geq 7.000$$

$$\lambda_{0\text{ }^{\circ}\text{C}} \leq 0,038 \text{ W}/(\text{m}\cdot\text{K})$$

Heat flow at 0 yrs: 4,39 [W/m]  
Heat flow at 10 yrs: 4,65 [W/m]



#### Armaflex® XG

$$\mu \geq 10.000$$

$$\lambda_{0\text{ }^{\circ}\text{C}} \leq 0,036 \text{ W}/(\text{m}\cdot\text{K})$$

Heat flow at 0 yrs: 4,19 [W/m]  
Heat flow at 10 yrs: 4,37 [W/m]

Conditions:	general	max.	avg.
medium temperature	6° C		
pipe diameter	33,7 mm		
insulation thickness	25 mm		
ambient temperature		24° C	22° C
relative humidity		75%	70%

Calculations according to VDI 2055.

#### Behaviour after 10 years:

The image shows the behaviour of the insulation material 10 years after installation. Over time, some of the moisture from water vapour transmission can condense in the inner zone of the insulation material while the rest penetrates to the cold surface of the pipe. As a result of the accumulation of moisture, the thermal conductivity and thus the energy losses from the installations rise. Only low-temperature insulation materials with low (initial) thermal conductivity and high resistance to water vapour transmission provide long-term protection against the accumulation of moisture and protect the installations against energy losses over the entire service life.

## Product range



Copper pipes		Steel pipes		Plastic pipes	Tubes, 2-metre length						
Outer Ø mm	Inches	Outer Ø mm	Min. Inner Ø mm	Outer Ø mm	6 mm	9 mm	13 mm	19 mm	25 mm	32 mm	40 mm
					Matchcode	Matchcode	Matchcode	Matchcode	Matchcode	Matchcode	Matchcode
6		6			XG-06X006	XG-09X006	XG-13X006	XG-19X006			
8		8			XG-06X008	XG-09X008	XG-13X008	XG-19X008			
10	¾	10,2	6		XG-06X010	XG-09X010	XG-13X010	XG-19X010	XG-25X010		
12		12			XG-06X012	XG-09X012 <sup>1)</sup>	XG-13X012 <sup>1)</sup>	XG-19X012 <sup>1)</sup>	XG-25X012		
15	¼	13,5	8	14	XG-06X015	XG-09X015 <sup>1)</sup>	XG-13X015 <sup>1)</sup>	XG-19X015 <sup>1)</sup>	XG-25X015		
18	⅝	17,2	10		XG-06X018	XG-09X018 <sup>1)</sup>	XG-13X018 <sup>1)</sup>	XG-19X018 <sup>1)</sup>	XG-25X018 <sup>1)</sup>	XG-32X018	
				20	XG-06X020	XG-09X020	XG-13X020	XG-19X020	XG-25X020		
22	½	21,3	15		XG-06X022	XG-09X022 <sup>1)</sup>	XG-13X022 <sup>1)</sup>	XG-19X022 <sup>1)</sup>	XG-25X022 <sup>1)</sup>	XG-32X022	
25		25		25	XG-06X025	XG-09X025	XG-13X025	XG-19X025	XG-25X025		
28	¾	26,9	20		XG-06X028	XG-09X028 <sup>1)</sup>	XG-13X028 <sup>1)</sup>	XG-19X028 <sup>1)</sup>	XG-25X028 <sup>1)</sup>	XG-32X028	XG-40X028
		30				XG-09X030	XG-13X030	XG-19X030	XG-25X030		
				32	XG-06X032	XG-09X032	XG-13X032	XG-19X032	XG-25X032		
35	1	33,7	25		XG-06X035	XG-09X035 <sup>1)</sup>	XG-13X035 <sup>1)</sup>	XG-19X035 <sup>1)</sup>	XG-25X035 <sup>1)</sup>	XG-32X035	XG-40X035
				40		XG-09X040	XG-13X040	XG-19X040	XG-25X040	XG-32X040	
42	1 ¼	42,4	32			XG-09X042 <sup>1)</sup>	XG-13X042 <sup>1)</sup>	XG-19X042 <sup>1)</sup>	XG-25X042 <sup>1)</sup>	XG-32X042	XG-40X042
		48,3				XG-09X048 <sup>1)</sup>	XG-13X048 <sup>1)</sup>	XG-19X048 <sup>1)</sup>	XG-25X048 <sup>1)</sup>	XG-32X048	XG-40X048
				50		XG-09X050	XG-13X050	XG-19X050	XG-25X050	XG-32X050	XG-40X050
54		54				XG-09X054 <sup>1)</sup>	XG-13X054 <sup>1)</sup>	XG-19X054 <sup>1)</sup>	XG-25X054 <sup>1)</sup>	XG-32X054	XG-40X054
	2	60,3	50			XG-09X060 <sup>1)</sup>	XG-13X060 <sup>1)</sup>	XG-19X060 <sup>1)</sup>	XG-25X060 <sup>1)</sup>	XG-32X060	XG-40X060
64		63,5		63		XG-09X064	XG-13X064	XG-19X064	XG-25X064	XG-32X064	XG-40X064
70		70				XG-09X070	XG-13X070	XG-19X070	XG-25X070	XG-32X070	XG-40X070
76,1	2 ½	76,1	65	75		XG-09X076	XG-13X076 <sup>1)</sup>	XG-19X076 <sup>1)</sup>	XG-25X076 <sup>1)</sup>	XG-32X076	XG-40X076
80							XG-13X080	XG-19X080	XG-25X080	XG-32X080	XG-40X080
88,9	3	88,9	80			XG-09X089	XG-13X089 <sup>1)</sup>	XG-19X089 <sup>1)</sup>	XG-25X089 <sup>1)</sup>	XG-32X089	XG-40X089
	3 ½	101,6				XG-09X102	XG-13X102	XG-19X102	XG-25X102	XG-32X102	XG-40X102
108						XG-09X108	XG-13X108	XG-19X108	XG-25X108	XG-32X108	XG-40X108
				110		XG-09X110		XG-19X110		XG-32X110	XG-40X110
	4	114,3	100			XG-09X114	XG-13X114	XG-19X114	XG-25X114	XG-32X114	XG-40X114
		125		125		XG-09X125	XG-13X125	XG-19X125		XG-32X125	
133							XG-13X133	XG-19X133	XG-25X133	XG-32X133	XG-40X133
	5	139,7	125			XG-09X140	XG-13X140	XG-19X140	XG-25X140	XG-32X140	XG-40X140
159				160		XG-09X160	XG-13X160	XG-19X160	XG-25X160	XG-32X160	XG-40X160
	6	168,3						XG-19X168	XG-25X168	XG-32X168	XG-40X168
Tolerance					± 1,0 mm	± 1,0 mm	± 1,0 mm	± 1,5 mm	± 1,5 mm	± 1,5 mm	± 2 mm

<sup>1)</sup> also available as self-adhesive tube

Please see our price list for details of the complete product range.

### Armaflex® XG tubes



Endless tubes available in thicknesses 6, 9 and 13 mm for IDs 6-28 mm

### Armaflex® XG sheets



Standard and self-adhesive sheets in thicknesses of 6, 9, 13, 16, 19, 25, 32, 40 mm

### Accessories



Adhesive Armaflex 520  
 Armafinish 99 protective paint  
 Armaflex Cleaner  
 Armaflex XG self-adhesive Tape  
 Other accessories: cutting knife, accessory case, etc.



## Technical Data

Brief description:	Highly-flexible, closed-cell insulation material with high water vapour diffusion resistance and low thermal conductivity.
Material:	Elastomeric foam based on synthetic rubber Self-adhesive coating: pressure-sensitive adhesive coating on modified acrylate basis with mesh structure. Covered with polyethylene foil.
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.

Property	Value / Assessment	Test certificate *1	Supervision *2	Special remarks																																													
<b>Temperature range</b> (Temperature limits) Max. line temperature Min. line temperature	+ 105° C (flat surface and tape +85° C) - 50° C Our Customer Service Center should be consulted for applications with temperatures below - 50° C.	D 4597	●/O	Tested acc.to DIN EN 14706, DIN EN 14707 and DIN EN 14304																																													
<b>Thermal Conductivity</b> $\lambda_d$ [W/(m·K)] at various mean temperatures $t_m$ [°C] Sheets (6 to 25 mm), tape Tubes (6 to 19 mm) Tubes (25 to 40 mm) Sheets (32 to 40 mm)	<table border="1"> <thead> <tr> <th>-50</th> <th>-30</th> <th>-20</th> <th>+/-0</th> <th>+10</th> <th>+20</th> <th>+40</th> <th>+70</th> <th>+85</th> </tr> </thead> <tbody> <tr> <td>0,031</td> <td>0,033</td> <td>0,034</td> <td>0,036</td> <td>0,037</td> <td>0,038</td> <td>0,040</td> <td>0,043</td> <td>0,045</td> </tr> <tr> <td>-</td> <td>0,033</td> <td>0,034</td> <td>0,036</td> <td>0,037</td> <td>0,038</td> <td>0,040</td> <td>0,043</td> <td>-</td> </tr> <tr> <td>-</td> <td>0,035</td> <td>0,036</td> <td>0,038</td> <td>0,039</td> <td>0,040</td> <td>0,042</td> <td>0,045</td> <td>-</td> </tr> <tr> <td>-</td> <td>0,035</td> <td>0,036</td> <td>0,038</td> <td>0,039</td> <td>0,040</td> <td>0,042</td> <td>0,045</td> <td>-</td> </tr> </tbody> </table>	-50	-30	-20	+/-0	+10	+20	+40	+70	+85	0,031	0,033	0,034	0,036	0,037	0,038	0,040	0,043	0,045	-	0,033	0,034	0,036	0,037	0,038	0,040	0,043	-	-	0,035	0,036	0,038	0,039	0,040	0,042	0,045	-	-	0,035	0,036	0,038	0,039	0,040	0,042	0,045	-	D 4595  D 4612	●/O  ●/O	Tested acc. to DIN EN 12667 EN ISO 8497 Declared according to: EN ISO 13787
-50	-30	-20	+/-0	+10	+20	+40	+70	+85																																									
0,031	0,033	0,034	0,036	0,037	0,038	0,040	0,043	0,045																																									
-	0,033	0,034	0,036	0,037	0,038	0,040	0,043	-																																									
-	0,035	0,036	0,038	0,039	0,040	0,042	0,045	-																																									
-	0,035	0,036	0,038	0,039	0,040	0,042	0,045	-																																									
<b>Water vapour diffusion resistance factor</b> $\mu$ Sheets (6 to 25 mm) and tubes (6 to 19 mm) Sheets (32 to 40 mm) and tubes (25 to 40 mm)	$\geq 10.000$ $\geq 7.000$	D 4596	●/O	Tested acc. to EN 12086 and EN 13469																																													
<b>Reaction to fire</b> <b>1. Building material class</b>	<b>low flammability</b> <b>(B-s3, d0; B1-s3, d0) *3</b> Z-56.269-xxx und Z-56.269-xxx	D 4593 D 4598	●/O	Tested acc. to DIN EN 13823 DIN EN 11925-1																																													
<b>2. Practical fire behaviour</b>	self-extinguishing, does not drip, does not spread flames																																																
<b>Acoustic insulation (DIN 4109)</b> Reduction of structure-borne sound transmission	Insulation effect up to 28 dB(A)	D 3660		Tested acc. to DIN 52219 and DIN EN ISO 3822-1																																													
<b>Dimensions and limits for deviations</b>	in accordance with prEN 14304, table 1	D 4597		Tested acc. to EN 822, EN 823, EN 13467																																													
<b>AGI Designation Code</b> Tubes Sheets	36.12.01.06.04/06 *4 36.07.01.02.04 *4			Tested acc. to AGI Q 143-1																																													
<b>Storage</b> <b>Storage life</b>	Self-adhesive tapes, self-adhesive sheets, tubes, strips: 1 year	Can be stored in dry, clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0° C – 35° C).																																															

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

\* 2 ●: Supervised according to VDI 2055 and official supervision by testing institute (fire behaviour euroclass).

O: Own in-factory monitoring according to following prEN 14304.

\* 3 The building materials classification is valid on metal or solid, mineral surfaces.

\* 4 The AGI Designation code will be replaced by the CE description code.

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 technical service before insulating stainless steels. Adhesive Armaflex 520 must be used to guarantee proper installation. For some new refrigerants the discharge temperature may exceed +105 °C, consult Technical Service for further information. For outside use Armaflex® XG should be protected within 3 days, eg. with Armafinish 99.