

Armaflex® MC

THE FLEXIBLE INSULATION WITH A
BUILT IN VAPOUR BARRIER



- Microcell technology for excellent low-thermal conductivity and a high resistance to water vapour
- Closed-cell structure with built-in condensation control
- Built-in Microban® antimicrobial protection reduces mould and bacterial growth as the option
- Low thermal conductivity $\lambda_{0\text{ }^{\circ}\text{C}} < 0.034 \text{ W}/(\text{m} \cdot \text{K})$
- High water vapour resistance $\mu > 7,000$
- Greenguard indoor air quality certified
- Flexible, free of dust, fibre, CFC and HCFC



Technical data - Armaflex MC

Description	Manufactured with "Micro-Cell" technology, the professional flexible closed-cell material provides reliable condensation control with excellent thermal conductivity and the option of MICROBAN® antimicrobial protection in sheets.								
Material Type	Elastomeric foam based on nitrile rubber.								
Colour	Black								
Applications	Insulation / protection for pipes and ducts of air-conditioning, refrigeration and chilled water systems to prevent condensation and save energy.								
Safety and Environment	Dust free and fibre free Free of formaldehyde Zero ODP and zero GWP								
Assembly	The Armaflex® installation manual should be consulted before installation. We offer special installation training for the application of Armaflex®. For outdoor application, Arma-Chek® cladding should be used. Please contact our Technical Department.								
Property	Value/ Assessment						Test ¹	Special remarks	
Temperature Range									
Temperature Range	max. service temperature	+ 105 °C		(+ 85 °C if sheet or tape is glued to the object with its whole surface)				For applications between - 50 °C and - 200 °C, please contact our Technical Department.	
	min. service temperature	- 50 °C							
Thermal Conductivity									
Thermal Conductivity	ϑ_m	-20 [-4]	+/-0 [32]	24 [75]	32 [90]	40 [104]	°C [°F]	Tested acc. to ASTM C 518 ASTM C 177	
	λ	≤ 0.032	0.034	0.036	0.037	0.039	W/(m · K)		
		≤ 0.230	0.240	0.250	0.260	0.270	Btu·in/(h·ft²·°F)		
Water Vapour Diffusion Resistance									
Water Vapour Diffusion Resistance	< 0.02 perm-in. < 2.8 x 10 ⁻¹¹ g/(m·s·Pa)		μ	≥	7,000			Tested acc. to ASTME96 methodA EN 12086 DIN 52615	
Fire Performance									
Reaction to fire	Flammability			V0				Tested acc. to UL94	
Practical Fire Behaviour	Self-extinguishing, no fire dripping							ASTM D 635	
Acoustic Performance									
Reduction of Structure-borne Sound Transmission	Sound Absorption Co-efficient: Up to 0.55 at 1,000 Hz							Tested acc. to ISO 354:2003 Also suitable for use in the prevention of sound passage	
Antimicrobial behaviour	In-built Microban® active antimicrobial protection. No fungal growth observed.							As option on request	
UV Resistance	For UV protection Armafinish Paint 99 or ArmaChek Silver 350 is required								
Water Absorption	≤ 3% by weight ≤ 0.05% by volume								Tested acc.to ASTM D 1056 ASTM C 209
Ozone Resistance	No crack							Tested acc. to ASTM D 1171	
Corrosion on Copper or Steel Pipe	No corrosion							Tested acc. to DIN 1988 Part 7	
Antimicrobial Behaviour	In-built Microban® antimicrobial protection : No fungi growth observe						As the option on request		
Environmental Aspect	Low VOC, Low Total Aldehyde							Test acc to GGPS.001 Greenguard IAQ Standard for Building Material , Finish , and Furnishings GGPS.002 Greenguard Children & School Standard	

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

All statements and technical information are based on results obtained under typical conditions. It is the responsibility of the recipient to verify with us that the information is appropriate for the specific use intended by the recipient. For outside use, Armaflex® should be protected within 3 days, eg. with Armafinish® Paint 99 or Arma-Chek® covering.

Armaflex MC tubes



Length 2.0 m. Color black

Pipe max. Outside-Ø [mm]	Cu Pipe OD [inch]	Inner Ø min/ max [mm]	6.0 mm (1/4) insulation thickness			9.0 mm (3/8) insulation thickness		
			Code	Tubes/carton	m/carton	Code	Tubes/carton	m/carton
6	-	6.5 - 8.5	-	-	-	MC-F-006	176	352
10	-	9.5 - 11.5	-	-	-	MC-F-010	132	264
12	-	13.0 - 15.0	-	-	-	MC-F-012	120	240
15	5/8"	16.0 - 18.0	MC-D-015	143	286	MC-F-015	100	200
20	3/4"	19.5 - 21.5	MC-D-020	110	220	MC-F-020	72	144
22	7/8"	22.5 - 24.5	MC-D-022	100	200	MC-F-022	68	136
25	1"	27.0 - 29.0	MC-D-025	81	162	MC-F-025	63	126
28	1-1/8"	29.0 - 31.0	MC-D-028	68	136	MC-F-028	49	98
32	-	31.5 - 34.0	-	-	-	MC-F-032	42	84
35	1-3/8"	35.0 - 37.5	MC-D-035	53	106	MC-F-035	42	84
42	-	42.5 - 45.0	-	-	-	MC-F-042	35	70
48	-	48.5 - 51.0	-	-	-	MC-F-048	28	56
54	-	54.5 - 57.0	-	-	-	MC-F-054	24	48
60	-	60.5 - 63.0	-	-	-	MC-F-060	24	48

Pipe max. Outside-Ø [mm]	Cu Pipe OD [inch]	Inner Ø min/ max [mm]	13.0 mm (1/2) insulation thickness			19.0 mm (3/4) insulation thickness		
			Code	Tubes/carton	m/carton	Code	Tubes/carton	m/carton
6	1/4"	6.5 - 8.5	MC-H-006	90	180	MC-M-006	56	112
10	3/8"	9.5 - 11.5	MC-H-010	90	180	MC-M-010	46	92
12	1/2"	13.0 - 15.0	MC-H-012	72	144	MC-M-012	39	72
15	3/4"	16.0 - 18.0	MC-H-015	64	128	MC-M-015	39	72
20	5/8"	19.5 - 21.5	MC-H-020	56	112	MC-M-020	30	60
22	7/8"	22.0 - 24.5	MC-H-022	53	106	MC-M-022	30	60
25	1"	27.0 - 29.0	MC-H-025	42	84	MC-M-025	25	50
28	1-1/8"	29.0 - 31.0	MC-H-028	36	72	MC-M-028	20	40
32	1-1/4"	31.5 - 34.0	MC-H-032	30	60	MC-M-032	20	40
35	1-3/8"	35.0 - 37.5	MC-H-035	25	50	MC-M-035	18	36
42	1-5/8"	42.5 - 45.0	MC-H-042	25	50	MC-M-042	16	32
48	1-7/8"	48.5 - 51.0	MC-H-048	20	40	MC-M-048	16	32
54	2-1/8"	54.5 - 57.0	MC-H-054	20	40	MC-M-054	16	32
60	2-3/8"	60.5 - 63.0	MC-H-060	15	30	MC-M-060	12	24
67	2-5/8"	67.5 - 70.5	MC-H-067	12	24	MC-M-067	10	20
73	2-7/8"	74.0 - 77.0	MC-H-073	12	24	MC-M-073	9	18
76	3"	77.0 - 80.0	MC-H-076	12	24	MC-M-076	9	18
80	3-1/8"	81.0 - 84.5	MC-H-080	11	22	MC-M-080	8	16
89	3-1/2"	89.5 - 93.0	MC-H-089	11	22	MC-M-089	8	16
105	4-1/8"	106.0 - 110.0	MC-H-105	8	16	MC-M-105	6	12
114	4-1/2"	115.0 - 119.0	MC-H-114	8	16	MC-M-114	6	12
140	-	141.5 - 145.5	-	-	-	MC-M-140	3	6

Armaflex MC tubes



Length 2.0 m. Color black

Pipe max. Outside-Ø [mm]	Cu Pipe OD [inch]	Inner Ø min/ max [mm]	25.0 mm (1) insulation thickness			32.0 mm (1 1/4 inch) insulation thickness		
			Code	Tubes/carton	m/carton	Code	Tubes/carton	m/carton
10	3/8"	9.5 - 11.5	MC-R-010	28	56	-	-	-
12	1/2"	13.0 - 15.0	MC-R-012	28	56	MC-T-012	16	32
15	3/4"	16.0 - 18.0	MC-R-015	20	40	MC-T-015	16	32
20	5/8"	19.5 - 21.5	MC-R-020	20	40	MC-T-020	12	24
22	7/8"	22.0 - 24.5	MC-R-022	20	40	MC-T-022	12	24
25	1"	27.0 - 29.0	MC-R-025	18	36	MC-T-025	12	24
28	1-1/8"	29.0 - 31.0	MC-R-028	16	32	MC-T-028	12	24
32	1-1/4"	31.5 - 34.0	MC-R-032	14	28	MC-T-032	12	24
35	1-3/8"	35.0 - 37.5	MC-R-035	14	28	MC-T-035	9	18
42	1-5/8"	42.5 - 45.0	MC-R-042	11	22	MC-T-042	8	16
48	1-7/8"	48.5 - 51.0	MC-R-048	11	22	MC-T-048	6	12
54	2-1/8"	54.5 - 57.0	MC-R-054	9	18	MC-T-054	6	12
60	2-3/8"	60.5 - 63.0	MC-R-060	9	18	MC-T-060	6	12
67	2-5/8"	67.5 - 70.5	MC-R-067	8	16	MC-T-067	5	10
73	2-7/8"	74.0 - 77.0	MC-R-073	8	16	MC-T-073	4	8
76	3"	77.0 - 80.0	MC-R-076	6	12	MC-T-076	4	8
80	3-1/8"	81.0 - 84.5	MC-R-080	6	12	MC-T-080	4	8
89	3-1/2"	89.5 - 93.0	MC-R-089	6	12	MC-T-089	4	8
93	3-5/8"	94.0 - 97.5	MC-R-093	4	8	MC-T-093	3	6
102	4"	102.0 - 106.0	MC-R-102	4	8	MC-T-102	3	6
105	4-1/8"	106.0 - 110.0	MC-R-105	4	8	MC-T-105	3	6
114	4-1/2"	115.0 - 119.0	MC-R-114	4	8	MC-T-114	3	6
140	5-1/2"	141.5 - 145.5	MC-R-140	3	6	MC-T-140	2	4
168	6-5/8"	170.0 - 174.0	MC-R-168	2	4	MC-T-168	2	4

Pipe max. Outside-Ø [mm]	Cu Pipe OD [inch]	Inner Ø min/ max [mm]	38.0 mm (1 1/2 inch) insulation thickness			50.0 mm (2 inch) insulation thickness		
			Code	Tubes/carton	m/carton	Code	Tubes/carton	m/carton
15	3/4"	16.0 - 18.0	MC-U-015	11	22	-	-	-
20	5/8"	19.5 - 21.5	MC-U-020	11	22	-	-	-
22	7/8"	22.0 - 24.5	MC-U-022	11	22	MC-V-022	6	12
25	1"	27.0 - 29.0	MC-U-025	8	16	MC-V-025	6	12
28	1-1/8"	29.0 - 31.0	MC-U-028	8	16	MC-V-028	6	12
32	1-1/4"	31.5 - 34.0	MC-U-032	8	16	MC-V-032	5	10
35	1-3/8"	35.0 - 37.5	MC-U-035	8	16	MC-V-035	5	10
42	1-5/8"	42.5 - 45.0	MC-U-042	6	12	MC-V-042	4	8
48	1-7/8"	48.5 - 51.0	MC-U-048	6	12	MC-V-048	4	8
54	2-1/8"	54.5 - 57.0	MC-U-054	5	10	MC-V-054	4	8
60	2-3/8"	60.5 - 63.0	MC-U-060	5	10	MC-V-060	4	8
67	2-5/8"	67.5 - 70.5	MC-U-067	4	8	MC-V-067	4	8
73	2-7/8"	74.0 - 77.0	MC-U-073	4	8	MC-V-073	4	8
76	3"	77.0 - 80.0	MC-U-076	4	8	MC-V-076	3	6
80	3-1/8"	81.0 - 84.5	MC-U-080	4	8	MC-V-080	3	6
89	3-1/2"	89.5 - 93.0	MC-U-089	4	8	MC-V-089	3	6
93	3-5/8"	94.0 - 97.5	MC-U-093	3	6	MC-V-093	3	6
102	4"	102.0 - 106.0	MC-U-102	3	6	MC-V-102	3	6
105	4-1/8"	106.0 - 110.0	MC-U-105	3	6	MC-V-105	3	6
114	4-1/2"	115.0 - 119.0	MC-U-114	3	6	MC-V-114	2	4
140	5-1/2"	141.5 - 145.5	MC-U-140	2	4	MC-V-140	2	4
168	6-5/8"	170.0 - 174.0	MC-U-168	2	4	MC-V-168	2	4

Remarks

For ABS plastic pipes, only HT/Armaflex should be used.
The above items are packed in carton.

Armaflex MC sheets



Width 0.91 m, Length 1.22 m, Color black

Code	Insulation thickness [mm]	m ² /carton
MC-13x122x91	13.0	20
MC-19x122x91	19.0	13
MC-25x122x91	25.0	10
MC-32x122x91	32.0	8

Remarks

The above items are packed in plastic bags.

Armaflex MC sheets precut



Width 1.22 m, Color black

Pipe max. Outside-Ø [mm]	Fe Pipe Nom. OD [mm]	13.0 mm (1/2) insulation thickness				19.0 mm (3/4) insulation thickness			
		Code	Width [m]	Length [m]	Pieces/carton	Code	Width [m]	Length [m]	Pieces/carton
150	150	MC-13x122x60	1.22	0.60	20	MC-19x122x60	1.22	0.60	13
200	200	MC-13x122x75	1.22	0.75	20	MC-19x122x75	1.22	0.75	13
250	250	MC-13x122x95	1.22	0.95	20	MC-19x122x95	1.22	0.95	13
300	300	MC-13x122x110	1.22	1.10	20	MC-19x122x110	1.22	1.10	13
350	350	MC-13x122x120	1.22	1.20	20	MC-19x122x125	1.22	1.25	13
400	400	MC-13x122x135	1.22	1.35	20	MC-19x122x140	1.22	1.40	13
450	450	MC-13x122x150	1.22	1.50	20	MC-19x122x155	1.22	1.55	13
500	500	MC-13x122x165	1.22	1.65	20	MC-19x122x170	1.22	1.70	13
550	550	MC-13x122x185	1.22	1.85	20	MC-19x122x185	1.22	1.85	13
600	600	MC-13x122x195	1.22	1.95	20	MC-19x122x200	1.22	2.00	13

Pipe max. Outside-Ø [mm]	Fe Pipe Nom. OD [mm]	25.0 mm (1) insulation thickness				32.0 mm (1 1/4 inch) insulation thickness			
		Code	Width [m]	Length [m]	Pieces/carton	Code	Width [m]	Length [m]	Pieces/carton
150	6	MC-25x122x60	1.22	0.60	10	MC-32x122x67	1.22	0.67	8
200	8	MC-25x122x75	1.22	0.75	10	MC-32x122x83	1.22	0.83	8
250	10	MC-25x122x95	1.22	0.95	10	MC-32x122x100	1.22	1	8
300	12	MC-25x122x110	1.22	1.10	10	MC-32x122x116	1.22	1.16	8
350	14	MC-25x122x125	1.22	1.25	10	MC-32x122x126	1.22	1.26	8
400	16	MC-25x122x145	1.22	1.45	10	MC-32x122x142	1.22	1.42	8
450	18	MC-25x122x155	1.22	1.55	10	MC-32x122x158	1.22	1.59	8
500	20	MC-25x122x170	1.22	1.70	10	MC-32x122x173	1.22	1.73	8
550	22	MC-25x122x185	1.22	1.85	10	MC-32x122x190	1.22	1.9	8
600	24	MC-25x122x200	1.22	2.00	10	MC-32x122x210	1.22	2.1	8

Pipe max. Outside-Ø [mm]	Fe Pipe Nom. OD [mm]	38,0 mm (1 1/2 inch) insulation thickness				50,0 mm (2 inch) insulation thickness			
		Code	Width [m]	Length [m]	Pieces/carton	Code	Width [m]	Length [m]	Pieces/carton
150	6	MC-38x122x75	1.22	0.75	5	MC-50x122x75	1.22	0.75	5
200	8	MC-38x122x95	1.22	0.95	5	MC-50x122x95	1.22	0.9	5
250	10	MC-38x122x110	1.22	1.10	5	MC-50x122x110	1.22	1.09	5
300	12	MC-38x122x125	1.22	1.25	5	MC-50x122x125	1.22	1.2	5
350	14	MC-38x122x140	1.22	1.40	5	MC-50x122x140	1.22	1.35	5
400	16	MC-38x122x155	1.22	1.55	5	MC-50x122x155	1.22	1.6	5
450	18	MC-38x122x170	1.22	1.70	5	MC-50x122x170	1.22	1.7	5
500	20	MC-38x122x185	1.22	1.85	5	MC-50x122x185	1.22	1.9	5
550	22	MC-38x122x200	1.22	2.00	5	MC-50x122x200	1.22	1.99	5
600	24	MC-38x122x220	1.22	2.20	5	MC-50x122x220	1.22	2.15	5

Remarks

The above items are packed in plastic bags.

Length tolerance

The circumference tolerance is +300 mm

Armaflex MC continuous sheets



Width 1.0 m and 1.22 m, Color black

1.0 m width				1.22 m width			
Code	Insulation thickness [mm]	Roll length [m]	m ² /carton	Code	Insulation thickness [mm]	Roll length [m]	m ² /carton
MC-06100CS-15	6.0	15	15	MC-06122CS-15	6.0	15	18.3
MC-09100CS-10	9.0	10	10	MC-09122CS-10	9.0	10	12.2
MC-13100CS-8	13.0	8	8	MC-13122CS-8	13.0	8	9.76
MC-19100CS-6	19.0	6	6	MC-19122CS-6	19.0	6	7.32
MC-25100CS-4	25.0	4	4	MC-25122CS-4	25.0	4	4.88
MC-32100CS-3	32.0	3	3	MC-32122CS-3	32.0	3	3.66
MC-38100CS-3	38.0	3	3	MC-32122CS-6	32.0	6	7.32
MC-50100CS-3	50.0	3	3	MC-38122CS-3	38.0	3	3.66
-	-	-	-	MC-38122CS-6	38.0	6	7.32
-	-	-	-	MC-50122CS-3	50.0	3	3.66
-	-	-	-	MC-50122CS-6	50.0	6	7.32

Remarks 1.4m width rolls available on request.
16mm thickness available on request.
The above items are packed in plastic bags.

Armaflex MC continuous sheets (jumbo rolls)



Width 1.22 m, Length 15 m, Color black

Code	Insulation thickness [mm]	Roll length [m]	m ² /carton
MC-09x122x1500	9.0	15	18.3
MC-13x122x1500	13.0	15	18.3
MC-19x122x1500	19.0	15	18.3
MC-25x122x1500	25.0	15	18.3

Remarks The above items are packed in plastic bags.

Armaflex MC self-adhesive continuous sheets



Width 1.0 m and 1.22 m, Color black

1.0 m width				1.22 m width			
Code	Insulation thickness [mm]	Roll length [m]	m ² /carton	Code	Insulation thickness [mm]	Roll length [m]	m ² /carton
MC-06100CS-15-T	6.0	15	15	MC-06122CS-15-T	6.0	15	18.3
MC-09100CS-10-T	9.0	10	10	MC-09122CS-10-T	9.0	10	12.2
MC-13100CS-8-T	13.0	8	8	MC-13122CS-8-T	13.0	8	9.76
MC-19100CS-6-T	19.0	6	6	MC-19122CS-6-T	19.0	6	7.32
MC-25100CS-4-T	25.0	4	4	MC-25122CS-4-T	25.0	4	4.88
MC-32100CS-3-T	32.0	3	3	MC-32122CS-6T	32.0	6	7.32
MC-38100CS-3-T	38.0	3	3	MC-38122CS-6T	38.0	6	7.32
MC-50100CS-3-T	50.0	3	3	MC-50122CS-6T	50.0	6	7.32

Remarks 1.4m width rolls available on request.
16mm thickness available on request.
The above items are packed in plastic bags.

Armaflex MC self-adhesive continuous sheets (jumbo rolls)



Width 1.22 m, Length 15 m, Color black

Code	Insulation thickness [mm]	Roll length [m]	m ² /carton
MC-09x122x1500-T	9.0	15	18.3
MC-13x122x1500-T	13.0	15	18.3
MC-19x122x1500-T	19.0	15	18.3
MC-25x122x1500-T	25.0	15	18.3

Remarks The above items are packed in plastic bags.

Armaflex MC self-adhesive tapes



Color black

Code	Article description	Width [mm]	Length [m]	Thickness [mm]	Rolls/carton
MC-03005CS-9.14-T	Armaflex MC self-adhesive tape, black (9.14m x 50mm x 3mm)	50.0	9.14	3	12
MC-0600025CS-15-T	Armaflex MC self-adhesive tape, black (15m x 25mm x 6mm)	25.0	15	6	12

Armaflex MC accessories



Code	Article description	Pieces/carton
ADH-520-1G	Armaflex 520 adhesive, 3.78 litre cans	4
ADH520/0,5E	Armaflex 520 adhesive, 0.5 liter cans	12
ADH520/1,0E	Armaflex 520 adhesive, 1.0 liter cans	12
ADH520/3.8-BLV	Armaflex BLV520 low-VOC adhesive, 3.78 litre cans (Leed certified)	3
ADH820T/0.7-I	Armaflex 820 adhesive, 0.7 litre cans	12
ADH820T/1G	Armaflex 820 adhesive, 3.78 litre cans	3
CLEANER/1,0	Special cleaner for use with Armaflex 520 Adhesive and Armaflex HT625 Adhesive.	4
CUTTING-SET	Armaflex knite-set (3 knives + 1 sharpening stone)	1
GLUEM-BRUSH11MM	Gluemaster extra brush points with cap (11mm diameter)	5x4
GLUEM-BRUSH17MM	Gluemaster extra brush points with cap (17mm diameter)	5x4
GLUEMASTER B	Armaflex gluemaster (adhesive pump)	12



SECURE SOLUTIONS :
 Effective Condensation Control
 Energy Saving
 Indoor Air Quality Contribution

The Secure solution: effective condensation control and active MICROBAN™ antimicrobial protection

- Closed microcell structure
- Highly flexible
- Long term energy saving $\lambda 0^\circ\text{C} \leq 0.034 \text{ W}/(\text{m} \cdot \text{K})$
- Reduce structure borne noise by up to 30 dB(A)
- Secure system solution with Armfix to avoid thermal bridge
- Now available with the option of Microban for indoor air quality

Performance improvement with microcell technology

Armaflex® MC is manufactured with "Micro-Cell" technology and its appearance is characterized by a much finer cell structure. This is the result of continual research and development into the product's insulation performance. The benefit is excellent thermal conductivity that is combined with a strong resistance to water vapour permeability. The combination of these factors provide long-term performance, particularly for cold applications such as chilled water, refrigeration and air-conditioning.

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