



ENGINEERED TO
PREVENT CONDENSATION

ArmaFlex[®] Class 1

Built-in water vapour barrier to
reduce risk of corrosion under insulation



Tubes (Length: 2.0m)

D-series (non-engineered wall)			F-series (non-engineered wall)			H-series (engineered wall)			M-series (engineered wall)			Insulation inner diameter	Cu pipe outer diameter	Fe pipe outer diameter	Nominal diameter
Item	Average insulation thickness	Carton content	Item	Average insulation thickness	Carton content	Item	Average insulation thickness	Carton content	Item	Average insulation thickness	Carton content				
	[mm]	[m]		[mm]	[m]		[mm]	[m]		[mm]	[m]	[mm]	[inch]	[mm]	[DN]
C1-D-015#	6.25	264	C1-F-006	9.25	324	C1-H-006	14.00	180	C1-M-006	17.75	112	6	1/4		
			C1-F-010	9.25	264	C1-H-010	14.00	144	C1-M-010	17.75	100	10	3/8		6
			C1-F-012	9.25	220	C1-H-012	14.00	128	C1-M-012	17.75	90	12	1/2		
			C1-F-015	9.25	180	C1-H-015	14.00	128	C1-M-015	17.75	80	15	5/8	14	8
C1-D-020	6.25	220	C1-F-020	9.25	144	C1-H-020	14.00	90	C1-M-020	18.75	72	20	3/4		
C1-D-022	6.25	180	C1-F-022	9.25	128	C1-H-022	12.75	90	C1-M-022	18.75	60	22	7/8	22	15
C1-D-025	6.25	144	C1-F-025	9.25	108	C1-H-025	12.75	82	C1-M-025	19.25	50	25	1	25	
			C1-F-028	9.25	98	C1-H-028	13.25	72	C1-M-028	19.75	50	28	1-1/8	28	20
			C1-F-032	9.25	84	C1-H-032	13.25	64	C1-M-032	19.75	40	32	1-1/4	32	
			C1-F-035	9.25	82	C1-H-035	13.75	58	C1-M-035	20.50	36	35	1-3/8		25
			C1-F-038#	9.25	72	C1-H-038	13.75	54	C1-M-038	21.00	34	38	1-1/2	38	
			C1-F-042	9.25	60	C1-H-042	14.25	48	C1-M-042	21.00	30	42	1-5/8		32
			C1-F-045#	9.25	50	C1-H-045	14.25	40	C1-M-045	21.50	24	45	1-3/4		
			C1-F-048#	9.25	50	C1-H-048#	14.25	40	C1-M-048	22.00	24	48	1-7/8		40
			C1-F-050#	9.25	40	C1-H-050#	14.25	32	C1-M-050	22.00	24				
			C1-F-054	9.25	40	C1-H-054	14.25	36	C1-M-054	22.00	24	54	2-1/8		
			C1-F-057#	9.25	40	C1-H-057#	14.75	32	C1-M-057#	22.00	22	57	2-1/4	57	
			C1-F-060	9.25	32	C1-H-060	14.75	28	C1-M-060	22.50	20	60	2-3/8		50
									C1-M-064#	22.50	16	64			
						C1-H-067	14.75	24	C1-M-067#	22.50	16	67	2-5/8		
						C1-H-076	14.75	22	C1-M-076	23.00	14	76	3	76	
						C1-H-080	15.00	18	C1-M-080#	23.00	14	80	3-1/8		
						C1-H-089	15.25	18	C1-M-089	24.50	12	89	3-1/2	89	80
						C1-H-108#	15.50	16	C1-M-108	25.00	10	108	4-1/4	108	
						C1-H-114	15.50	16	C1-M-114#	25.50	10	114	4-1/2	114	100
									C1-M-133#	25.50	6	133	5-1/4		
									C1-M-140#	26.00	6	140			125
												168			150

*Made to order. Minimum order quantities and different lead times may apply.

Self-adhesive option available upon request. Minimum order quantities and different lead times may apply.

Rolls (Width: 1.0m)

Item	Insulation thickness	Length	Carton content
	[mm]	[m]	[sqm]
C1-40100CS-3	40	3	3.00
C1-50100CS-3	50	3	3.00

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Rolls (Width: 1.22m)

Item	Insulation thickness	Length	Carton content
	[mm]	[m]	[sqm]
C1-38122CS#	38	10	12.20
C1-40122CS-3#	40	3	3.66

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Rolls (Width: 1.5m)

Item	Insulation thickness	Length	Carton content
	[mm]	[m]	[sqm]
C1-06150CS-S15	6	15	22.50
C1-09150CS-S10	9	10	15.00
C1-13150CS	13	8	12.00
C1-16150CS	16	7	10.50
C1-19150CS	19	6	9.00
C1-25150CS	25	4	6.00
C1-30150CS	30	3	4.50
C1-32150CS	32	3	4.50

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Tubes (Length: 2.0m)

R-series (engineered wall)			T-series (engineered wall)			U-series (non-engineered wall)			V-series (non-engineered wall)			Insulation inner diameter	Cu pipe outer diameter	Fe pipe outer diameter	Nominal diameter
Item	Average insulation thickness	Carton content	Item	Average insulation thickness	Carton content	Item	Average insulation thickness	Carton content	Item	Average insulation thickness	Carton content				
	[mm]	[m]		[mm]	[m]		[mm]	[m]		[mm]	[m]	[mm]	[inch]	[mm]	[DN]
												6	1/4		
C1-R-010	24.00	60	C1-T-010 [#]	31.00	32							10	3/8		6
C1-R-012	24.00	56	C1-T-012	31.00	32							12	1/2		
C1-R-015	24.00	48	C1-T-015	32.00	32	C1-U-015	40.00	22				15	5/8	14	8
C1-R-020	24.00	40	C1-T-020	32.00	24	C1-U-020	40.00	22	C1-V-020 [#]	50.00	12	20	3/4		
C1-R-022	24.00	40	C1-T-022	32.00	24	C1-U-022	40.00	18	C1-V-022	50.00	12	22	7/8	22	15
C1-R-025	24.00	36	C1-T-025	32.00	24	C1-U-025	40.00	18	C1-V-025 [#]	50.00	12	25	1	25	
C1-R-028	24.00	32	C1-T-028	33.50	22	C1-U-028	40.00	16	C1-V-028	50.00	12	28	1-1/8	28	20
C1-R-032	26.00	24	C1-T-032	33.50	20	C1-U-032	40.00	16	C1-V-032 [#]	50.00	10	32	1-1/4	32	
C1-R-035	26.00	24	C1-T-035	35.00	18	C1-U-035	40.00	12	C1-V-035	50.00	10	35	1-3/8		25
C1-R-038	26.00	24	C1-T-038	35.00	16	C1-U-038	40.00	12	C1-V-038 [#]	50.00	8	38	1-1/2	38	
C1-R-042	26.00	22	C1-T-042	36.50	16	C1-U-042	40.00	12	C1-V-042	50.00	8	42	1-5/8		32
C1-R-045	26.50	20	C1-T-045	36.50	12	C1-U-045 [#]	40.00	12	C1-V-045 [#]	50.00	8	45	1-3/4		
C1-R-048	26.50	20	C1-T-048	37.50	12	C1-U-048	40.00	12	C1-V-048	50.00	8	48	1-7/8		40
C1-R-050	26.50	20	C1-T-050	37.50	12	C1-U-050 [#]	40.00	12	C1-V-050 [#]	50.00	8				
C1-R-054	27.50	20	C1-T-054	38.00	10	C1-U-054	40.00	10	C1-V-054	50.00	8	54	2-1/8		
C1-R-057 [#]	27.50	16	C1-T-057 [#]	38.50	10				C1-V-057 [#]	50.00	8	57	2-1/4	57	
C1-R-060	28.00	16	C1-T-060	39.00	10	C1-U-060	40.00	10	C1-V-060	50.00	8	60	2-3/8		50
C1-R-064 [#]	28.00	14	C1-T-064 [#]	39.00	10							64			
C1-R-067 [#]	28.00	14	C1-T-067	39.50	8	C1-U-067	40.00	8	C1-V-067	50.00	6	67	2-5/8		
C1-R-076	29.00	12	C1-T-076	39.50	8	C1-U-076	40.00	8	C1-V-076	50.00	4	76	3	76	
C1-R-080 [#]	29.00	12	C1-T-080 [#]	39.50	8	C1-U-080 [#]	40.00	8	C1-V-080 [#]	50.00	4	80	3-1/8		
C1-R-089	29.50	12	C1-T-089	41.50	8	C1-U-089	40.00	8	C1-V-089	50.00	4	89	3-1/2	89	80
C1-R-108 [#]	31.00	8	C1-T-108 [#]	42.50	6	C1-U-108 [#]	40.00	6	C1-V-108 [#]	50.00	4	108	4-1/4	108	
C1-R-114	31.50	6	C1-T-114 [#]	43.00	4	C1-U-114	40.00	4	C1-V-114	50.00	4	114	4-1/2	114	100
C1-R-133 [#]	31.50	6	C1-T-133 [#]	44.00	4							133	5-1/4		
C1-R-140 [#]	32.00	4	C1-T-140 [#]	44.50	4	C1-U-140 [#]	40.00	4	C1-V-140 [#]	50.00	4	140			125
C1-R-168 [#]	32.00	4	C1-T-168 [#]	44.50	4	C1-U-168 [#]	40.00	4	C1-V-168 [#]	50.00	4	168			150

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Self-adhesive option available upon request. Minimum order quantities and different lead times may apply.

Accessories

Item	Carton content	Article description
AS-ATAPEC1T-9M	24 rolls	ArmaFlex Class 1 insulation tape (3mm thickness x 50mm width x 9.14 m)
AS-AD-5201E	4 x 3.78 litre cans	ArmaFlex 520 adhesive
CLEANER/1,0	4 x 1.0 litre cans	ArmaFlex cleaner
CUTTING-SET	1	ArmaFlex cutting set (3 knives and 1 sharpening stone)

TECHNICAL DATA - ARMAFLEX CLASS 1

Brief description	ArmaFlex Class 1 is a flexible insulation material that reliably protects against water vapour ingress due to its closed-cell structure. No additional water vapour barrier is required.
Material type	Elastomeric foam based on synthetic rubber.
Colour	Black.
Special features	Engineered wall: Increasing insulation wall thickness for tubes ensures that the surface temperature is maintained as the pipe diameter is increased.
Applications	Thermal insulation/protection of pipes, air ducts and vessels (incl. elbows, fittings, flanges etc.) in air conditioning, refrigeration and process equipment to prevent condensation and to save energy. Structure-borne noise reduction in service-water and waste-water installations.
Installation	Please refer to the ArmaFlex installation manual for advice. ArmaFlex can be used together with ArmaFlex 520 adhesive and ArmaFix® pipehangers for a complete insulation system.

Property	Value/Assessment						Standard/Test method
Temperature range							
Service temperature	Max. service temperature	+105 °C		+85 °C if sheet or tape is glued to the object with its whole surface.			
	Min. service temperature	-50 °C					
Thermal conductivity							
	θm	-20	+/-0	+20	+40	[°C]	GB/T 10295,GB/T10296 ASTM C518, EN ISO 8497
	λ ≤	0.032	0.034	0.036	0.039	[W/(m·K)]	
Water vapour diffusion resistance							
Water vapour diffusion resistance factor	μ ≥ 10,000						DIN EN 13469, DIN EN 12086, GB/T 17146-1997
Water vapour permeability	≤ 1.96 x 10 ⁻¹¹ g/(m·s·Pa)						
Fire performance and approvals							
Surface spread of flame	Class 1						BS 476 Part 7:1997
Flammability	V-0 rating						UL 94
	FM-Approved						FM 4924
Practical fire behaviour	Does not generate flaming droplets.						
Others	Product conforms to requirements for building products under the Fire Safety and Shelter Department of Singapore.						
Other technical features							
Resilience after compression relief	≥ 70%						GB/T 6669-2001
Water absorption by vacuum	≤ 10%						GB/T 17794
Chemical resistance	Please consult product test list.						
UV resistance	For UV protection, ArmaFinish Paint or Arma-Chek® covering system is required. For outside use, ArmaFlex should be protected within three days of installation.						
Health aspects	Free of fibre and formaldehyde. Low Volatile Organic Compounds (VOC), low total aldehyde. GREENGUARD Gold for even lower VOC and total chemical emissions.						UL2818-2013
Environmental aspect	Zero ODP and GWP. Singapore Green Building Product Certified: “Excellent” rating. Type III Environmental Product Declaration (EPD): Declaration number 4786944121.101.1, UL Environment.						
Storage	Material shall be stored in dry, clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0°C to 35 °C).						
Shelf (storage life)	Self-adhesive sheets, tubes and tapes: 1 year.						

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 our Technical department in due time whether or not the data and information apply to the intended application area.