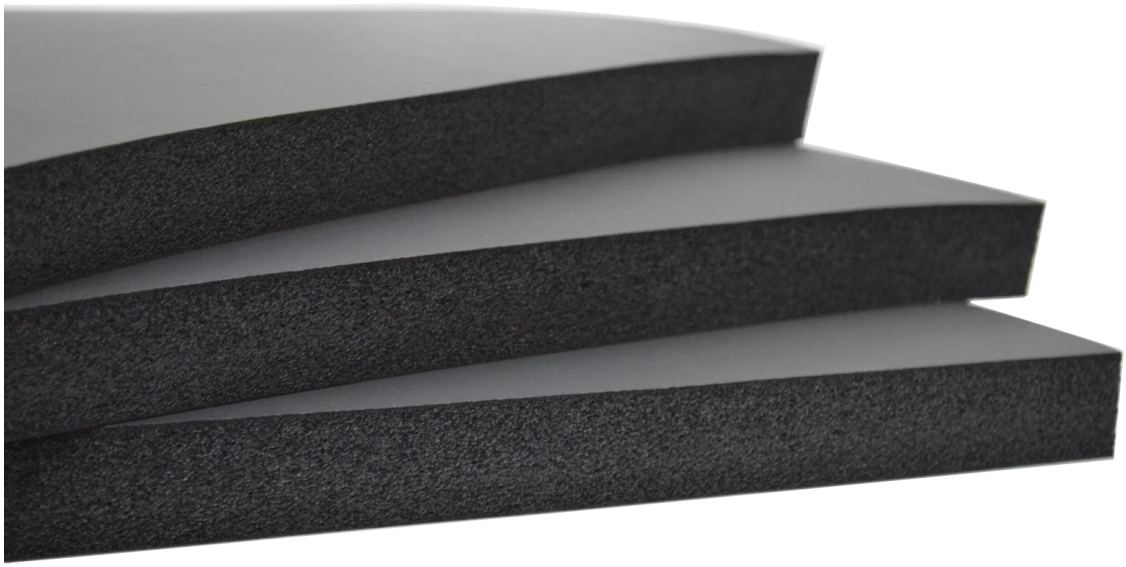
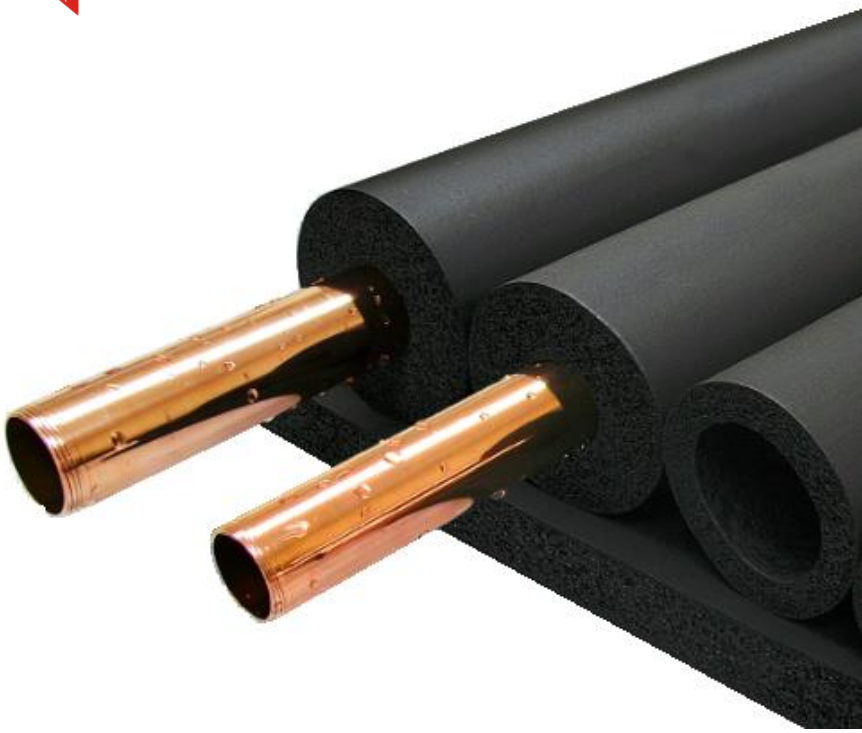


Allflex

Quality Insulation



Allflex Quality Insulation

Allflex products are manufactured with stringent quality to meet various industry standards to ensure insulation performance.

Allflex FR

AS/NZS 1530.3 1999

Superior Fire Performance

Low Smoke

Allflex FR is an elastomeric insulation engineered and designed specifically to control condensation. Its main uses are for an insulating pipework particularly for air conditioning ducting, chilled water lines and refrigerated pipes.

Furthermore, Allflex FR is tested with Australia and New Zealand's stringent building codes for fire hazard requirements. Tests under AS/NZS 1530.3 standard require the flame spread and smoke developed index to be low. Allflex FR complies with the fire requirements of the Building Code of Australia and can be used in all class 2 to 9 buildings.

	Values	Test Methods
Material	Nitrile Foam Rubber	
Cell Structure	Closed Cell	
Density	40kg/m^3 - 80kg/m^3	
Service Temperature	Maximum 105^{o}C pipes / (85^{o}C for flat surfaces) Minimum -50^{o}C	
Fire Performance	Ignitability Index – 0 Flame Spread Index – 0 Heat Evolved Index – 0 Smoke Developed Index – 3	AS/NZS 1530.3
Thermal Conductivity Mean Temp 0^{o}C Mean Temp 23^{o}C Mean Temp 40^{o}C	 0.032 W/m-K 0.034 W/m-K 0.036 W/m-K	 ASTM C518
Water Vapour Permeability **Water Absorption by Volume**	0.89 x 10^{-14} kg/Pa.m.s $\mu \geq 12{,}000$ 0.2%	ASTM E96 ASTM C209
Ozone Resistance **Corrosion Resistance** **Environment**	Good No Corrosion Dust and Fibre Free CFC Free, Zero Global Warming Potential	

Tested by AWTA, an accredited laboratory in Australia by the National Association of Testing Authorities

Class 1 & Class 0

Low thermal conductivity

High moisture resistance

Allflex Class 1 and Class O has a low thermal conductivity and high moisture resistance ensuring insulating performance and condensation prevention when needed.

Allflex Class 1 and Class O insulation materials are also certified for both Class 1 and Class 0. British Standard (BS) 476 part 6 and part 7 is a widely accepted test standard. Part 6 (fire propagation) measures the heat that is released under fire conditions. Part 7 (spread of flame) measures the material's ability to retard flame spread under fire conditions.

Class 1 is a widely accepted standard. If higher fire performance is required, Class 0 is the preferred choice for insulation.

	Values				Test Methods
Material	Nitrile Foam Rubber				
Cell Structure	Closed Cell				
Density Range	40kg/m^3 - 70kg/m^3				
Service Temperature	Maximum 105^{o}C pipes / (85^{o}C for flat surfaces) Minimum -50^{o}C				
FIRE RESISTANCE					
Surface Spread of Flames	Class 1				BS 476 Part 7
Fire Propagation	Total Index (I) ≤ 12 Sub Index (i_1) ≤ 6				BS 476 Part 6
Fire Performance	Class 0				
Reaction to Fire	V-0, 5VA/ HF-1, Self Extinguishing, Does not Drip				UL94
Thermal Conductivity	Mean Temp	-10^{o}C	0^{o}C	20^{o}C	ASTM C518
	W/m·K	0.031	0.032	0.034	
	Btu ▪ in/hr ▪ ft^2 ▪ ^{o}F	0.22	0.23	0.24	
Water Vapour Permeability	0.89 x 10^{-14} kg/Pa.m.s $\mu \geq 12{,}000$				ASTM E96
Water Absorption by Volume	0.2%				ASTM C209
Ozone Resistance **Corrosion Resistance** **Environment**	Good No Corrosion Dust and Fibre Free CFC Free, Zero ODP, Zero GWP				

Allflex Insulation R-Values

R-value is the measure of thermal resistance used for the building and construction industry. It measures a material's ability to resist heat flow. In Australia, required R-values are specified in the Building Code of Australia (BCA) in section J. The higher the R-value, the higher the thermal resistance and insulating effect.

Pipe Insulation								
Nominal ID		Insulation Wall Thickness						
		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2 "
Inches	mm	10	13	19	25	32	38	50
1/4"	6	0.53	0.75	1.22	1.75	-	-	-
3/8"	10	0.46	0.64	1.05	1.50	-	-	-
1/2"	13	0.43	0.60	0.97	1.39	-	-	-
5/8"	16	0.41	0.57	0.92	1.31	1.80	2.25	3.29
3/4"	19	0.39	0.54	0.87	1.24	1.71	2.14	3.13
7/8"	22	0.38	0.52	0.84	1.19	1.64	2.04	2.99
1"	25	0.37	0.51	0.81	1.15	1.58	1.97	2.88
1 1/8"	28	0.36	0.50	0.79	1.12	1.53	1.91	2.79
1 1/4"	32	0.35	0.48	0.77	1.08	1.47	1.83	2.68
1 3/8"	35	0.35	0.47	0.75	1.05	1.44	1.79	2.61
1 1/2"	38	0.34	0.47	0.74	1.03	1.41	1.75	2.55
1 5/8"	42	0.34	0.46	0.72	1.01	1.37	1.70	2.48
1 7/8"	47	0.33	0.45	0.70	0.98	1.33	1.65	2.40
2"	51	0.33	0.44	0.69	0.96	1.31	1.62	2.35
2 1/8"	54	0.33	0.44	0.68	0.95	1.29	1.60	2.31
2 3/8"	60	0.32	0.43	0.67	0.93	1.26	1.55	2.25
2 5/8"	67	0.32	0.43	0.66	0.91	1.23	1.51	2.18
2 7/8"	73	0.31	0.42	0.65	0.90	1.20	1.48	-
3"	76	0.31	0.42	0.65	0.89	1.19	1.47	-
3 1/8"	80	0.31	0.42	0.64	0.88	1.18	1.46	-
3 1/2"	89	0.31	0.41	0.63	0.87	1.16	1.42	-
4"	101	0.31	0.41	0.62	0.85	-	-	-

Flat Sheet Insulation		
Thickness		R-Value
Inches	mm	
1/8"	3	0.08
1/4"	6	0.17
3/8"	10	0.28
1/2"	13	0.36
5/8"	16	0.45
3/4"	19	0.53
1"	25	0.70
1 1/4"	32	0.89
1 1/2"	38	1.06
2"	50	1.42

For more information, please consult our technical team for more specific requirements on R-values, for example larger ID and thicknesses

Allflex Tips:

Correct installation will improve the lifespan and performance of the insulation. Key factors of good insulation:

- Using correct thickness
- Installing the insulation material correctly

Before you install - Determine the thickness of the insulation material based on five factors:

1. Ambient temperature
2. Relative humidity
3. Pipe Size (outer diameter of pipe)
4. Line temperature

Recommended Thickness

	Piping Line Surface Temperature		
	15°C	5°C	-18°C
Normal Conditions Based on average weather experienced in tropical regions **Maximum severity of 29°C and RH of 78%**	1/2" (13mm)	1" (25mm)	1 1/2" (32mm)
Severe Conditions Confined and poorly ventilated areas with excessive moisture **Maximum severity of 35°C and RH of 85%**	1" (25mm)	1 1/2" (38mm)	2" (50mm)
Mild Conditions Well ventilated air conditioned areas **Maximum severity of 26°C and RH of 70%**	3/8" (10mm)	1/2 (13mm)	1" (25mm)

For more tips, installing methods and to determine correct thickness, please contact our technical team

Sizes & Packing Quantities

Insulation Pipes (Pieces per carton box)

Internal Diameter		Insulation Wall Thickness							
		1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Inches	mm	6	10	13	19	25	32	38	51
1/4"	6	265	156	110	49	32			
3/8"	10	205	120	90	42	30	15		
1/2"	13	156	105	72	36	25	12	10	6
5/8"	16	123	90	63	36	23	12	9	6
3/4"	19	100	72	56	30	20	12	9	6
7/8"	22	90	67	48	27	18	11	9	6
1"	25	80	56	42	24	17	11	9	6
1 1/8"	28	72	49	36	24	16	9	9	6
1 1/4"	32	56	42	30	20	16	9	9	4
1 3/8"	35	48	36	30	16	12	9	9	4
1 1/2"	38	42	34	26	16	12	9	8	4
1 5/8"	42		30	25	16	12	9	8	4
1 7/8"	48		28	20	15	10	8	6	4
2"	51		24	20	12	9	8	6	4
2 1/8"	54		22	20	12	9	8	6	4
2 1/4"	57		21	20	12	9	6	6	4
2 3/8"	60		20	18	12	9	6	6	3
2 1/2"	64		20	15	9	8	6	6	3
2 5/8"	67		18	15	9	8	6	6	3
2 7/8"	73		18	14	9	8	4	4	3
3"	76		18	14	8	8	4	4	3
3 1/8"	79		16	12	8	6	4	4	3
3 1/2"	89		16	12	8	6	4	4	3
4"	102		14	12	6	6	4	3	2
4 1/8"	105		14	12	6	5	4	3	2
4 1/4"	108		14	12	6	5	4	3	2
4 1/2"	114		14	12	6	4	4	3	2
5"	127		12	9	6	4	3	3	2
5 1/8"	130		10	9	6	3	3	3	
5 1/4"	133		10	9	6	3	3	3	
5 1/2"	140		10	8	6	3	3	3	
6"	152		10	8	6	3	3	3	
6 ¼"	159		9	8	6	3	3		
6 ½"	165		9	8	6	3	3		

Insulation Rolls

Thickness		Size
Inches	mm	Metres
1/4"	6	1.22 x 24.0
3/8"	10	1.22 x 21.0
1/2"	13	1.22 x 15.0
5/8"	16	1.22 x 14.0
3/4"	19	1.22 x 9.0
1"	25	1.22 x 8.0
1 1/4"	32	1.22 x 6.0
1 1/2"	38	1.22 x 5.0
2"	51	1.22 x 4.0
S Skin	All	1.22 x 9.14

Insulation Sheets

Thickness		Size		Pcs Per
Inches	mm	Metres	Feet	Carton
1/8"	3	1.22 x 0.914	4' x 3'	80
1/4"	6	1.22 x 0.914	4' x 3'	40
3/8"	10	1.22 x 0.914	4' x 3'	26
1/2"	13	1.22 x 0.914	4' x 3'	20
5/8"	16	1.22 x 0.914	4' x 3'	16
3/4"	19	1.22 x 0.914	4' x 3'	14
1"	25	1.22 x 0.914	4' x 3'	10
1 1/4"	32	1.22 x 0.914	4' x 3'	8
1 1/2"	38	1.22 x 0.914	4' x 3'	7
2"	51	1.22 x 0.914	4' x 3'	5

Allflex

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