

# **Quality NBR**Insulation



# Kemflex®



# **ABOUT THE MANUFACTURER**

Kemflex<sup>®</sup> is manufactured and packaged by Superlon Worldwide Sdn. Bhd. in Malaysia.

Incorporated in Malaysia in 1992, Superlon Worldwide has accumulated more than 20 years of manufacturing experience in nitrile butadiene rubber (NBR) foam. Its utmost priority is to assure consistent excellence of their insulation materials and provide a service that is second to none. Superlon Worldwide pride themselves in presenting customers with quality products together with prompt and reliable services.

## **PRODUCT FEATURES**

Kemflex insulation materials are engineered with the highest standard. The closed cell characteristic is the key component to an effective insulator by providing a barrier between the pipe's surface and atmospheric conditions.

### Low thermal conductivity and high moisture resistance:

 Kemflex insulation materials are produced with a high percetange of closed cells.

### **Superior fire performance:**

 Kemflex insulation materials are available in Class 1, Class 0 and FM Approved. In addition, Kemflex insulation materials have a high oxygen index.

### Fast and easy installation:

 Kemflex insulation materials are very flexible allowing installers to fabri cate, cut to specific shapes, sizes and fittings for fast and efficient installations.

#### Low allergen:

• Unlike other types of insulation products, Kemflex insulation materials are dust and fiber free which do not present any health related hazards.

### **Eco Friendly:**

 Kemflex insulation materials are zero Ozone Depleting Potential (ODP), zero Global Warming Potential (GWP) and low Volatile Organic Compounds (VOC).

### Aesthetically pleasing:

Although Kemflex insulation materials are mainly black in color, the surface
of the skin is smooth presenting a respectable finish on any given job type.
Color products are also available.

With the right installation methods and techniques Kemflex insualtion materials will not only provide good thermal insulation but also contribute to a longer life span of the system that it insulates.









Kemflex Class 1 and Class 0 is an elastomeric nitride foamed insulation engineered and designed specifically to control condensation. Its main uses are for an insulating pipe work particularly for air conditioning ducting, chilled water lines and refrigerated pipes.

Kemflex insulation materials are 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.

	Values				Test Methods
Material	Nitrile Foam Rubber				
Cell Structure	Closed Cell				
Density Range	40kg/m³-80kg/m³				
Service Temperature	Maximum 105 <sup>o</sup> C pipes / (8 Minumum -50 <sup>o</sup> C	35 ℃ for flat	surfaces)		
FIRE RESISTANCE Surface Spread of Flames Fire Propagation Fire Performance	Class 1 Total Index (I) ≤ 12 Sub Index (Iı) ≤ 6				BS 476 Part 7 BS 476 Part 6
Reaction to Fire	Class 0 V-0, 5VA/HF-1, Self Extingu	uishing, Does	not Drip		UL 94
	Mean Temp	0 °C	20 ℃	40 °C	
Thermal Conductivity	W/m.K	0.032	0.034	0.036	ASTM C518
	Btu" in/hr" ft <sup>2</sup> " <sup>0</sup> F	0.23	0.24	0.25	
Water Vapour Permeability	≤ 0.89 x 10 <sup>-14</sup> kg/Pa.m.s				ASTM E96
	µ ≥12,000				
Water Absorption by Volume	≤ 0.2%				ASTM C209
Ozone Resistance	Good				
Corrosion Resistance	No Corrosion				
Environment	Dust and Fibre Free				
	CFC Free, Zero ODP, Zero GWP				



# **FM Approved**



Kemflex's Factory Mutual (FM) Approved insulation material is tested to the highest and most stringent standards and can help to prevent fire propagation at the most critical times. Some FM Approved insulation materials in the market prevent fire propagation; however, drips whilst being burned and may cause other objects nearby to ignite and start burning as well. Our FM Approved insulation material is not only non-flammable; it does not drip, does not contribute to fire spread and it self-extinguishes once fire stops.

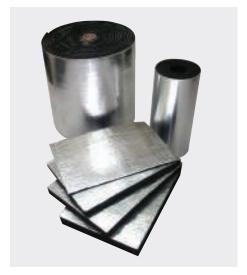
# Prevent Flame Spread Low Smoke No Dripping

	Values	Test Methods
Material	Nitrile Foam Rubber	
Cell Structure	Closed Cell	
Density	40kg/m <sup>3</sup> -80kg/m <sup>3</sup>	
Service Temperature	Maximum 105 °C pipes / (85 °C for flat Surfaces) Minimum -50 °C	
FM Approved	Pipes up to 2" (50mm) Thickness Sheets up to 1 1/2" (38mm) Thickness	
Thermal Conductivity W/m.K (Btu·in/hr·ft <sup>2.0</sup> F) Mean Temp 20 °C	0.034 (0.24)	ASTM C518
Water Vapour Permeability Water Absorption by Volume	$\leq 0.89 \times 10^{-14} \text{kg/Pa.m.s}$ $\mu \geq 12,000$ $\leq 0.2\%$	ASTM E96 ASTM C209
Ozone Resistance Corrosion Resistance Environment	Good No Corrosion Dust and Fibre Free CFC Free, Zero ODP, Zero GWP	



# Kemflex®

### **ACCESSORIES**



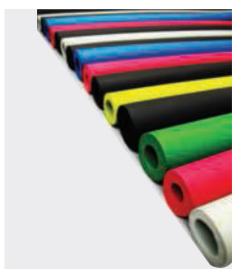
### **Aluminium Sheets:**

Most commonly used in open ceiling ducting lines and also chiller systems. UV resistant aluminium jacketing is available upon request should the application is under harsh and extreme UV conditions.



**Adhesive Sheets:** 

Adhesive sheets offer the ease of installation with the performance of specifically formulated adhesive lamination without the mess and hassle of using glue, saving you both time and money.



**Colour Products** 

Kemflex insulation materials are also available in various colours upon request



Glue:

Available in 1 liter tins and 3.36 liter tins. The glue is specifically formulated for the best adhesion for our rubber foam. It is best used for joining sheets and tubes together. For enhanced performance, please apply foam tape on to joining area when glue dries.

Size	Packing	
1 Litre	15 Cans/ Ctn	
3.36 Litre	6 Cans/ Ctn	



Paint:

Available in 5 liter tins. Black in color, the paint is best used for prolonging the lifespan of the insulation under normal atmospheric conditions. Should intense heat and continuous harsh UV conditions be present in the application area, we recommend the use of UV resistant jacketing such as UV resistant aluminium. (Available upon request)

Size	Packing		
5 Litres	2 Cans/ Ctn		



Foam/Gasket tapes:

Our Foam and gasket tapes can be used in a wide array of applications. From vibration dampening to cushion ing to reduce impact. It is most commonly used for joining areas where glue was used for adhesion of our insulation materials.

Tape Size	Packing
Foam Tape 3mm x 48 mm x 30ft	24 Pcs/ Ctn
Gasket Tape 5mm x 15mm x 10M	72 Pcs/ Ctn

# **Sizes & Packing Quantities**

Insulation Pipes (Pieces per carton box)

	ernal	Insulation Wall Thickness							
Dian	neter	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**

Thick	ness	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



Manufactured by

# Superlon Worldwide Sdn. Bhd.