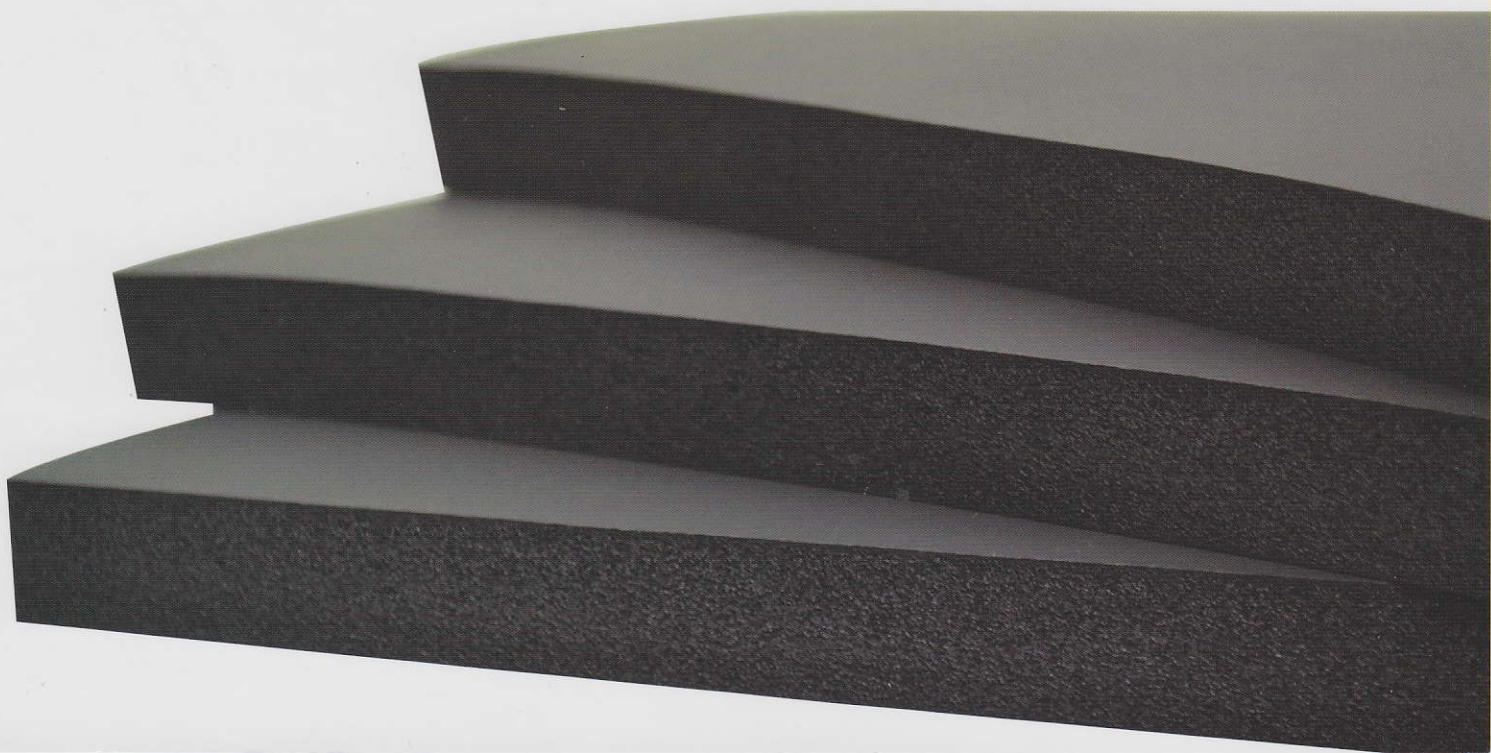


***SUPERLON***<sup>®</sup>

**Quality NBR Insulation**





Superlon products are produced with top qualities and meet various industry standards to ensure insulation performance.

## Class 1 & Class 0

High fire performance

Low thermal conductivity

High moisture resistance

Superlon Class 1 and Class 0 is an elastomeric nitrile foamed 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.

Superlon 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/m <sup>3</sup> - 70kg/m <sup>3</sup>				
Service Temperature	Maximum 105 °C pipes / (85 °C for flat surfaces) Minimum -50 °C				
<b>FIRE RESISTANCE</b>					
Surface Spread of Flames	Class 1			BS 476 Part 7 BS 476 Part 6	
Fire Propagation	Total Index (I) ≤ 12 Sub Index (ii) ≤ 6				
Fire Performance	Class 0			UL 94	
Reaction to Fire	V-0, 5VA/HF-1, Self Extinguishing, Does not Drip				
Thermal Conductivity	Mean Temp	0 °C	20 °C	40 °C	ASTM C518
	W/m.K	0.034	0.036	0.038	
	Btu · in/hr · ft <sup>2</sup> · °F	0.24	0.25	0.27	
Water Vapour Permeability	≤ 2.9 x 10 <sup>-14</sup> g/Pa.m.s μ ≥ 7000			ASTM E96	
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				

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

## FM Approved

Prevent Flame Spread

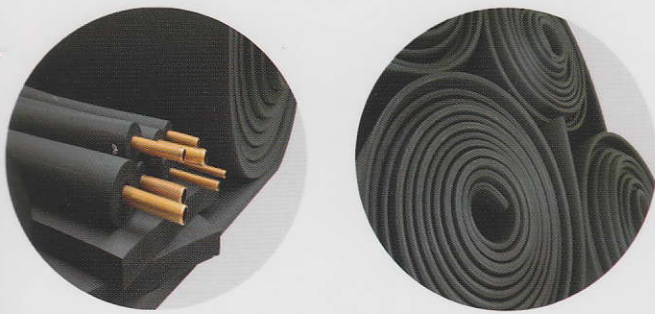
Low Smoke

No Dripping



Superlon'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. Superlon 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.

	Values			Test Methods
Material	Nitrile Foam Rubber			
Cell Structure	Closed Cell			
Density	40kg/m <sup>3</sup> - 70kg/m <sup>3</sup>			
Service Temperature	Maximum 105 °C pipes / (85 °C for flat Surfaces) Minimum -50 °C			
<b>FM Approved</b>	Pipes up to 2" (50mm) Thickness Sheets up to 1 1/2" (38mm) Thickness			
Thermal Conductivity	0.036 (0.25)			ASTM C518
W/m.K (Btu · in/hr · ft <sup>2</sup> · °F) Mean Temp 20 °C				
Water Vapour Permeability	≤ 2.9 x 10 <sup>-14</sup> g/Pa.m.s μ ≥ 7000			ASTM E96
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			



## High Density (HD)

**Harder  
Tougher  
Stronger**

HD Superlon material is a higher density alternative for the regular line of Superlon insulation materials. It is harder, stronger and tougher with a higher tensile strength than other equivalent materials in the market.

HD Superlon material is highly durable with a shore C hardness of greater than 10 and density greater than 70kg/m<sup>3</sup>. Furthermore, like all other Superlon products, every piece of Superlon HD material is engineered, produced and controlled with stringent procedures to ensure quality and effectiveness.

	Values	Test Methods
Shore C hardness	≥ 10	
Density	≥ 70kg/m <sup>3</sup>	
Tensile Strength	290 - 360 Kpa	ASTM D 412
Service Temperature	-50 °C to 105 °C	
Thermal Conductivity W/m·K (Btu·in./hr·ft <sup>2</sup> ·°F) Mean temp 20 °C	0.038 (0.27)	ASTM C518



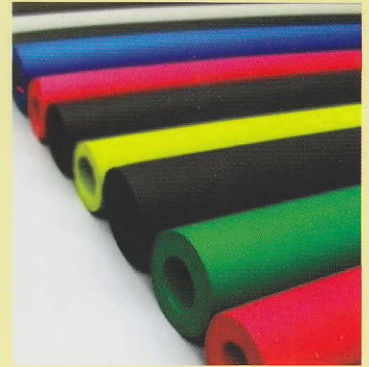
## About Superlon

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.

## Accessories



Aluminium Rubber



Colour Product



Adhesive Rubber

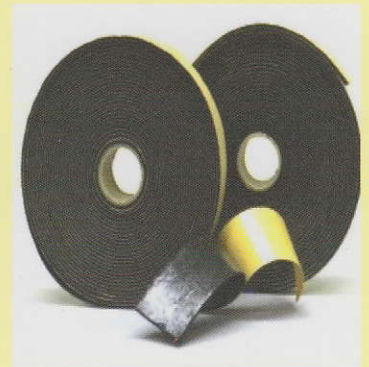


Insulation Glue

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



Paint



Foam/ Gasket Tape

Size	Packing
5 Litres	2 Cans/ Ctn

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

## Insulation Pipe (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	50
1/4"	6	250	156	110	49	30			
3/8"	10	200	120	90	42	30			
1/2"	13	150	100	72	36	24	12	9	6
5/8"	16	120	90	63	36	20	12	9	6
3/4"	19	100	72	56	30	20	12	9	6
7/8"	22	90	64	48	25	18	9	9	6
1"	25	80	56	42	20	16	9	9	6
1 1/8"	28	72	49	36	20	16	9	9	6
1 1/4"	32	56	42	30	20	15	9	9	4
1 3/8"	35	48	36	30	16	12	9	9	4
1 1/2"	38	42	34	25	16	12	9	8	4
1 5/8"	42		30	25	16	12	9	8	4
1 7/8"	47		28	20	15	10	8	6	4
2"	51		24	20	12	9	8	6	4
2 1/8"	54		21	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		18	15	9	8	6	6	3
2 5/8"	67		18	15	9	8	6	6	3
2 7/8"	73		18	13	9	8	4	4	3
3"	76		18	12	8	8	4	4	3
3 1/8"	80		16	12	8	6	4	4	
3 1/2"	89		16	12	8	6	4	4	
4"	102		14	12	6	6			
4 1/8"	105		14	12	6	5			
4 1/4"	108		14	12	6	5			
4 1/2"	114		14	12	6	4			
5"	127		10	9	6	4			
5 1/8"	130		10	9	6	3			
5 1/4"	133		10	9	6	3			
5 1/2"	140		10	8	6	3			

## Insulation Rolls

Thickness		Size	
Inches	mm	Feet	Metres
1/8"	3	4' x 30'	1.22 x 9.14
1/4"	6	4' x 30'	1.22 x 9.14
3/8"	10	4' x 30'	1.22 x 9.14
1/2"	13	4' x 30'	1.22 x 9.14
5/8"	16	4' x 30'	1.22 x 9.14
3/4"	19	4' x 30'	1.22 x 9.14
1"	25	4' x 30'	1.22 x 9.14
1 1/4"	32	3.29' x 30'	1 x 9.14
1 1/2"	38	3.29' x 30'	1 x 9.14
2"	50	3.29' x 6.75'	1 x 2

## Insulation Sheets

Thickness		Size		Pcs per carton
Inches	mm	Feet	Metres	
1/8"	3	4' x 3'	1.22 x 0.914	80
1/4"	6	4' x 3'	1.22 x 0.914	40
3/8"	10	4' x 3'	1.22 x 0.914	26
1/2"	13	4' x 3'	1.22 x 0.914	20
5/8"	16	4' x 3'	1.22 x 0.914	16
3/4"	19	4' x 3'	1.22 x 0.914	14
1"	25	4' x 3'	1.22 x 0.914	10
1 1/4"	32	4' x 3'	1.22 x 0.914	8
1 1/2"	38	4' x 3'	1.22 x 0.914	7
2"	50	4' x 3'	1.22 x 0.914	5

# Superlon 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
5. Medium (gas or liquid)

For example:

	Piping Line Surface Temperature		
	15°C	5°C	-18°C
<b>Normal Conditions</b> Based on the weather conditions experienced in tropical regions Maximum severity of 29°C and RH of 78%	1/2" (13 mm)	1" (25mm)	1 1/2" (38mm)
<b>Severe Conditions</b> 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)
<b>Mild Conditions</b> Well ventilated, low humidity conditions 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 your Superlon advisor.**

# SUPERLON®

Manufactured by

**Superlon Worldwide Sdn. Bhd.**

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Cert. No.: 402887

Cert. No.: KLR0197083