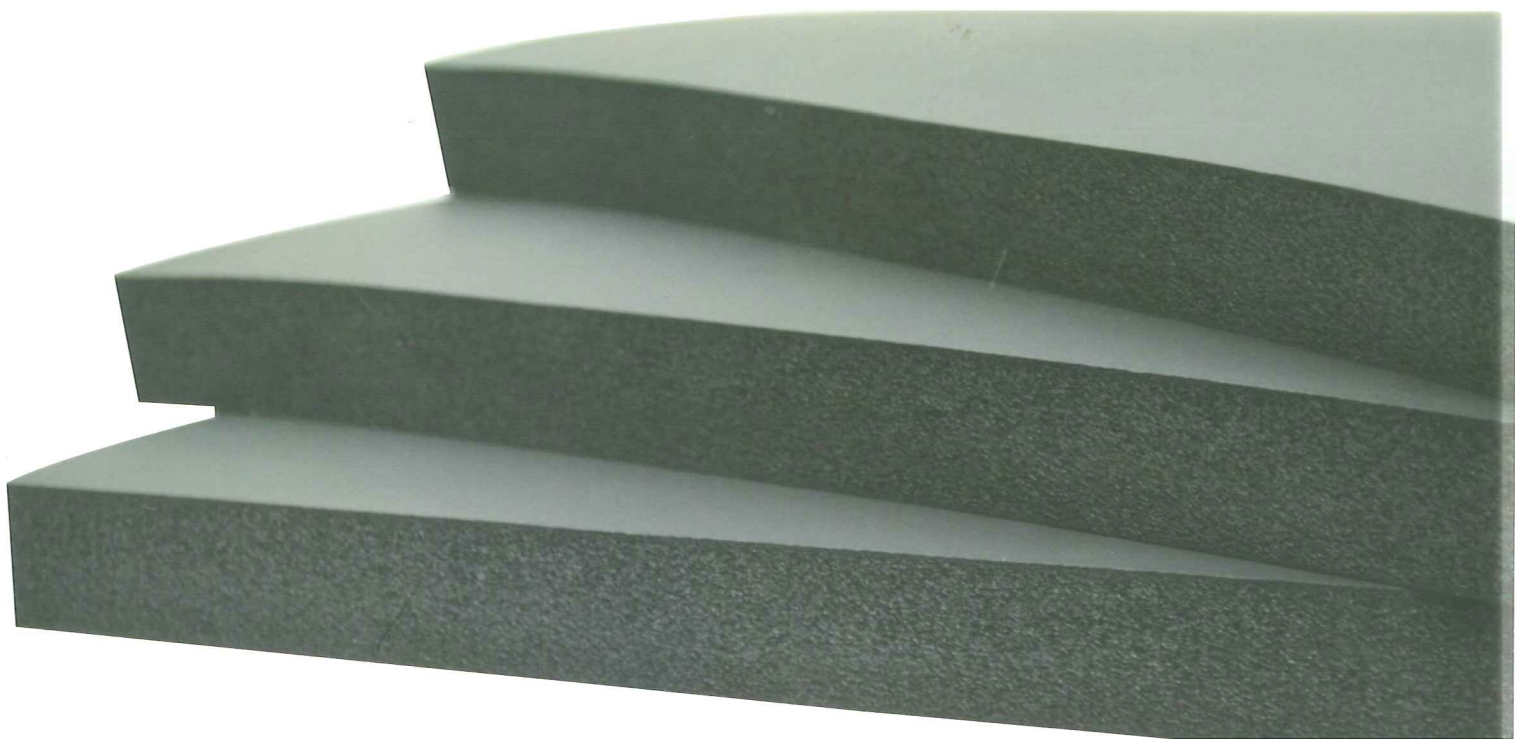




SUPERLON[®]

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

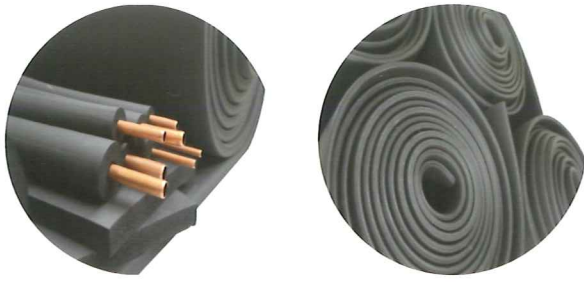
FM Approved

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 ³ -70kg/m ³	
Service Temperature	Maximum 105 °C pipes / (85 °C for flat Surfaces) Minimum -50 °C	
FM Approved	Pipes up to 2" (51mm) Thickness Sheets up to 1 1/2" (38mm) Thickness	FM 4924 UBC 26-3
Thermal Conductivity	W/m.K (Btu · in/hr · ft ² · °F) Mean Temp 20 °C	0.036 (0.25)
Water Vapour Permeability	≤ 2.9 x 10 ⁻¹⁴ 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/m³. 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 ³	
Tensile Strength	290 - 360 Kpa	ASTM D 412
Service Temperature	-50 °C to 105 °C	
Thermal Conductivity W/m·K (Btu·in /hr·ft ² ·°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

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	51
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"	48		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"	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		10	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		9	8	6	3	3	3	
6 1/4"	159		9	8	6	3	3		
6 1/2"	165		9	8	6	3	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"	51	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"	51	4' x 3'	1.22 x 0.914	5

- Can be customised to single or double skin
- Adhesive and aluminium jacketing available in the same sizes as above
- Sizes can be customised, contact Superlon sales for more information

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
Normal Conditions 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)
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" (51mm)
Mild Conditions 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.

Lot 2736, Jalan Raja Nong, 41200 Klang, Selangor Darul Ehsan, Malaysia
Tel: +603 5161-7778 | Fax: +603 5162-7778
Email: inquiry@superlon.com.my | Website: www.superlon.com.my

Distributor:



SUPERLON[®]

高品質NBR保溫防火材料



SUPERLON®

高品質 NBR 保溫防火材料

SUPERLON® 保溫產品為高品質並可符合不同產業的空調通風系統及防火所需的標準，達到保溫絕熱最佳效能。



Class 1 & Class O 系列

具高防火性能
低熱傳導係數
抗水氣高防潮

SUPERLON® Class 1 & Class O 保溫產品主要為預防冷凝的產生，其主要用途適用於冷氣空調通風系統，各種管路及設備之保溫工程應用。

SUPERLON® 保溫產品具有良好的防火性能，當接觸到火源時，不會因為火源接近而產生助燃，當火源離開時 SUPERLON® 產品具有阻燃和自熄性，產品不因火焰燃燒而產生熔滴。

SUPERLON® 保溫材料皆具有 Class 1 & Class O 之認證。Class 1 等級依據英國標準 BS476 Part 7 其防火標準為針對火焰表面擴散等級之測試。Class O 等級依據英國標準 BS476 Part 6，其防火標準為針對火焰蔓延指數之測試。

SUPERLON® Class 1 & Class O 技術指數

物性	指數			測試認證	
成分	丁腈橡膠 (NBR)				
發泡結構	密閉式氣泡結構				
密度範圍	40kg/m ³ - 70 kg/m ³				
保溫材料承受溫度範圍	保溫管最高受熱溫度: +105°C 保溫管最低受熱溫度: -50°C 保溫板最高受熱溫度: +85°C				
防火性能 火焰表面擴散 火焰蔓延傳導	Class 1 性能總指數 (I) ≤ 12 次指數 (i) ≤ 6 Class O V-0, 5VA/HF-1, 自行熄滅且不熔滴			BS 476 Part 7 BS 476 Part 6	
火焰反應				UL 94	
熱傳導係數	平均溫度	0 °C	20 °C	40 °C	ASTM C518
	W/m.K	0.034	0.036	0.038	
	Btu · in/hr · ft ² · °F	0.24	0.25	0.27	
水氣滲透率	≤ 2.9 x 10 ⁻¹⁴ g/Pa.m.s μ ≥ 7000			ASTM E96	
吸水率 (體積%)	≤ 0.2%			ASTM C209	
抗臭氧 抗腐蝕 環保成分	良好 不會腐蝕 無粉塵及無纖維 不含有害重金屬物質 無臭氧層破壞潛勢 (ODP) 無全球暖化潛勢 (GWP)				

FM Approved

SUPERLON® 防火產品獲得 Factory Mutual (FM) Approved 認證，針對大火情況下能防止火焰蔓延。

安裝 SUPERLON® FM Approved 產品可抑止火燄蔓延，在高溫燃燒型態下無熔滴且不助燃，具有較低熱傳導係數。

使用 SUPERLON® FM Approved 保溫產品目前已經是世界建築防火最佳選擇。

SUPERLON® FM Approved 技術指數

物性	指數	測試認證
成分	丁腈橡膠 (NBR)	
發泡結構	密閉式氣泡結構	
密度範圍	40kg/m ³ - 70kg/m ³	
保溫材料承受溫度範圍	保溫管最高受熱溫度: +105°C 保溫管最低受熱溫度: -50°C 保溫板最高受熱溫度: +85°C	
FM 防火等級	保溫管厚度達 2 吋 (51 毫米) 保溫板厚度達 1 1/2 吋 (38 毫米)	FM 4924 UBC 26-3
熱傳導 - 平均溫度 20°C W/m.k (Btu · in/hr · ft ² · °F)	0.036 (0.25)	ASTM C518
水氣滲透率	≤ 2.9 x 10 ⁻¹⁴ g/Pa.m.s μ ≥ 7000	ASTM E96
吸水率 (體積%)	≤ 0.2%	ASTM C209
抗臭氧 抗腐蝕 環保成分	良好 不會腐蝕 無粉塵及無纖維 不含有害重金屬物質 無臭氧層破壞潛勢 (ODP) 無全球暖化潛勢 (GWP)	

SUPERLON® 安裝方法

正確的安裝能延長 **SUPERLON®** 保溫產品使用年限且達到最有效的保溫效能。良好保溫效果的主要因素包含：

- 使用正確的厚度
- 正確的方法來安裝保溫材料

在安裝過程中，**SUPERLON®** 保溫材料厚度的取決於以下5個因素：

1. 室內最高溫度
2. 室內最高溼度
3. 管路外徑
4. 管路內部溫度
5. 媒介（氣態或液態）

以下為厚度建議範例：

安裝周圍環境	使用管路表面溫度		
	15°C	5°C	-18°C
正常情況下 最高溫度29°C及溼度78% (針對東南亞平均氣溫做衡量)	1/2吋 (13毫米)	1吋 (25毫米)	1 1/2吋 (38毫米)
嚴峻情況下 最高溫度35°C及溼度85% (針對通風較不佳區域)	1吋 (25毫米)	1 1/2吋 (38毫米)	2吋 (51毫米)
緩和情況下 最高溫度26°C及溼度70% (針對通風良好區域)	3/8吋 (10毫米)	1/2吋 (13毫米)	1吋 (25毫米)

在安裝過程，請您確保以下事項：

- **SUPERLON®** 保溫管接縫處請塗抹 **SUPERLON®** 特製膠水，等候膠水乾化後再進行黏合。
- 請輕輕的將 **SUPERLON®** 保溫管黏合(用力的擠壓會影響其包溫效能)。
- 在接縫處務必使用 **SUPERLON®** 保溫膠帶以防止管內溫度與外面空氣接觸，**SUPERLON®** 保溫管(或保溫板)接縫處必須貼上一層 **SUPERLON®** 保溫膠帶。
- 使用管路必須各別單獨包覆 **SUPERLON®** 保溫材料，不建議包覆二條使用管路或以上，否則會導致冷凝狀況而無法達到應有的保溫效果。
- 針對戶外的安裝，建議使用 **SUPERLON®** 鋁箔保溫板或塗 **SUPERLON®** 特製的透明防曬漆以維持其保溫壽命。

附註：若需安裝協助，請參考安裝手冊或諮詢 **SUPERLON®** 有關人員。

SUPERLON® 保溫配套附屬產品



戶外隔熱鋁箔保溫材料



彩色保溫管/板



自黏式保溫材料



特製膠水



透明防曬漆



保溫膠帶

每罐規格	包裝規格
1 公升	15 罐/箱
3.36公升	6 罐/箱

每罐規格	包裝規格
5 公升	2 罐/箱

保溫膠帶規格大小	包裝規格
3 毫米 x 48毫米 x 30 呎	24 捲/箱
5毫米 x 15毫米x 10公尺	72 捲/箱

SUPERLON® 產品規格/包裝規格

SUPERLON® 保溫管/長度1.8公尺/黑色

保溫管內徑		保溫管厚度							
		1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
英吋	毫米	6	10	13	19	25	32	38	51
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"	48		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"	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		10	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		9	8	6	3	3	3	
6 1/4"	159		9	8	6	3	3		
6 1/2"	165		9	8	6	3	3		

SUPERLON® 捲式保溫板

厚度		長度	
英吋	毫米	英吋	公尺
1/8"	3	4'x30'	1.22x9.14
1/4"	6	4'x30'	1.22x9.14
3/8"	10	4'x30'	1.22x9.14
1/2"	13	4'x30'	1.22x9.14
5/8"	16	4'x30'	1.22x9.14
3/4"	19	4'x30'	1.22x9.14
1"	25	4'x30'	1.22x9.14
1 1/4"	32	3.29'x30'	1x9.14
1 1/2"	38	3.29'x30'	1x9.14
2"	51	3.29'x6.75'	1x2

SUPERLON® 保溫板

厚度		長度		每箱 片數
英吋	毫米	英吋	公尺	
1/8"	3	4'x3'	1.22x0.914	80
1/4"	6	4'x3'	1.22x0.914	40
3/8"	10	4'x3'	1.22x0.914	26
1/2"	13	4'x3'	1.22x0.914	20
5/8"	16	4'x3'	1.22x0.914	16
3/4"	19	4'x3'	1.22x0.914	14
1"	25	4'x3'	1.22x0.914	10
1 1/4"	32	4'x3'	1.22x0.914	8
1 1/2"	38	4'x3'	1.22x0.914	7
2"	51	4'x3'	1.22x0.914	5



Cert. No.: 402887

SUPERLON®

製造廠商

Superlon Worldwide Sdn. Bhd.

Lot 2736, Jalan Raja Nong, 41200 Klang, Selangor Darul Ehsan, Malaysia

Tel: +603 5161-7778 | Fax: +603 5162-7778

Email: inquiry@superlon.com.my | Website: www.superlon.com.my

零售商：



Cert. No.: KLR0197083

SUPERLON[®]

Class 'O'



Malaysia's Leading Brand

SUPERLON[®] 
SUPERLON[®] 
SUPERLON[®] 
SUPERLON[®]

- FM Approved and Class 'O' fire resistance
- SIRIM and BOMBA certified
- Excellent Thermal Conductivity
- Excellent Water Vapour Resistance
- CFC Free, Dust & Fibre Free



SIRIM



001

Cert. No.: 402887



001

Cert. No.: KLR0197083

SUPERLON®



Technical Specifications

	Values				Remarks
Material	Nitrile Foam Rubber				
Cell Structure	Closed Cell				
Density	40 kg/m ³ -80 kg/m ³				
Service Temperature	Maximum 105 °C pipes / (85 °C for flat surfaces) Minimum -50 °C				
FIRE RESISTANCE					
FM Approved	Pipes up to 2" (51 mm) Thickness Sheets up to 1-1/2" (38mm) Thickness				FM 4924 UBC 26-3
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				SIRIM & BOMBA Approved
Reaction to Fire	V-0, 5VA/HF-1, Self-Extinguishing, Does Not Drip				UL 94
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 ² ·°F	0.24	0.25	0.27	
Water Vapour Permeability	« 2.9 x 10 ⁻¹⁴ 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				

Manufactured by
Superlon Worldwide Sdn. Bhd.

Lot 2736, Jalan Raja Nong, 41200 Klang, Selangor Darul Ehsan, Malaysia.

Tel.: +603-5161 7778 | Fax No.: +603-5162 7778

inquiry@superlon.com.my | Website: www.superlon.com.my