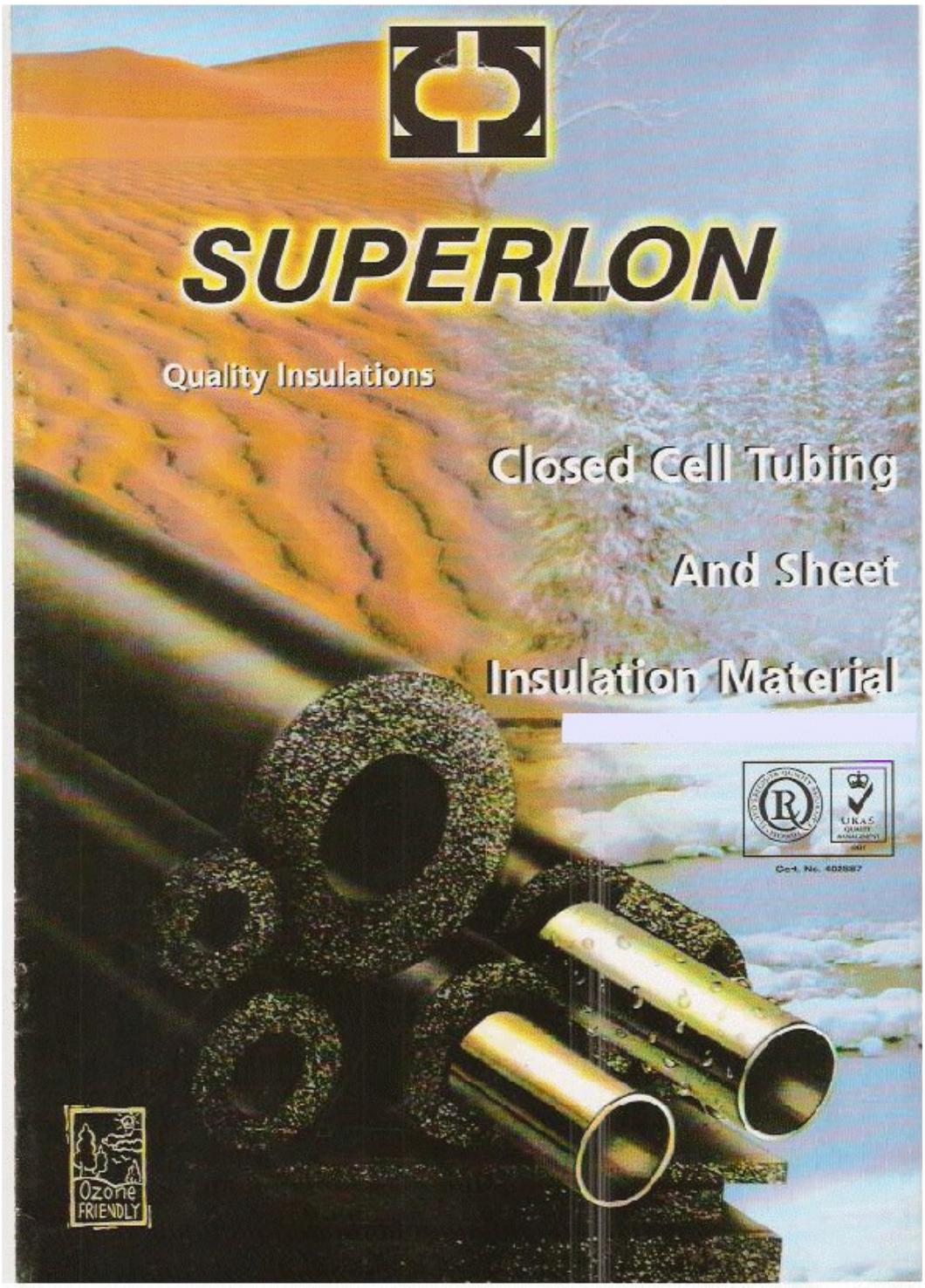
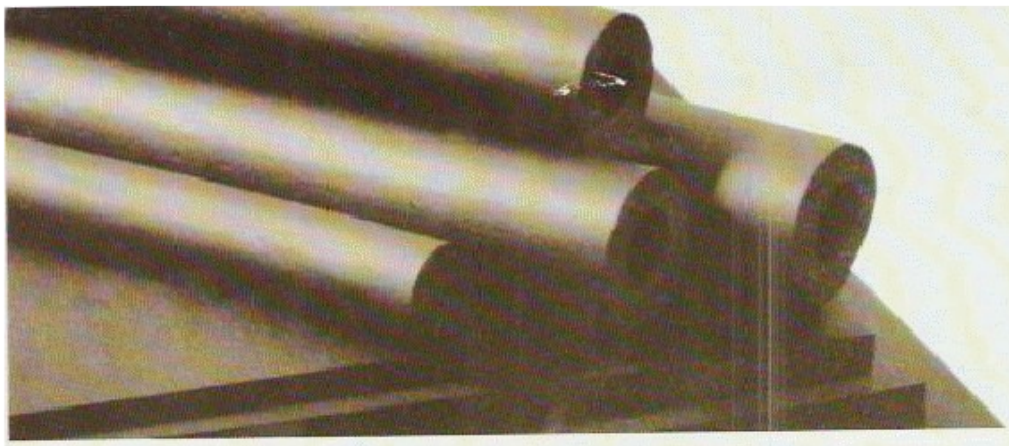

SUPERLON
Quality Insulations
Closed Cell Tubing
And Sheet
Insulation Material
Ozone
FRIENDLY



CLOSED CELL TUBING & SHEET INSULATION MATERIAL

Description

Superlon is a flexible and light weight elastomeric nitrile foam material designed for thermal insulation. SUPERLON insulation is black in colour and is available either in tubing or sheet form. The extruded flexible, tubing is specially designed to fit the standard diameters of steel and copper pipings. Sheets are available in standard precut sizes or in rolls.

Uses

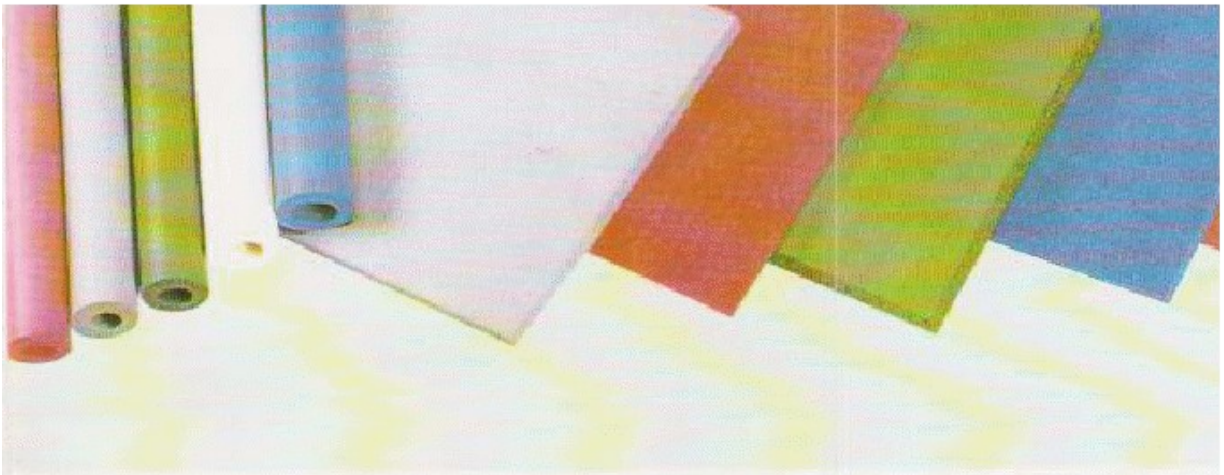
Superlon's expanded closed cell structure provides an efficient vapour barrier for the prevention, of condensation or frost formation on cooling systems, chilled water and refrigerator lines.

Superlon also retards heat loss for hot water plumbing and heating, dual temperature piping and solar systems. It protects pipes against corrosion and acts as a vibration damper.

Superlon's inherent flexibility makes it ideally suited to the insulation of large surface areas such as tanks, irregularly shaped vessel, air-ducts and large diameter pipes.

Characteristic and Advantages

- Low thermal conductivity (K value) which makes it highly efficient and effective in the insulation of cooling or heating systems.
- The thermal blister closed cell structure forms an impermeable layer which is in itself a good vapour barrier.
- It is suitable for application within the temperature range of - 40 deg C to + 105 deg C.
- The material has been specially compounded to be self extinguishing in nature,
- Superlon has excellent ozone and ultraviolet resistance.
- It is CFC, asbestos, chlorine and fibre free and does not cause skin allergy.
- It is also inert to most chemical agents and neutral to pipe metals.
- The extreme flexibility of the material makes installation fast, easy and economical.
- It is able to withstand tearing, rough handling and severe site conditions.
- Much lesser space is needed for Superlon as a thinner wall is required due to its low K value as compared to other types of insulation.
- The smooth surface of Superlon material gives the finished installation a neat and aesthetic appearance. No coating is necessary on most indoor installations.



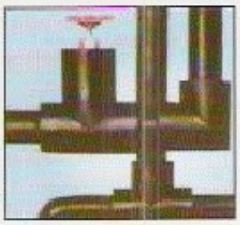
TECHNICAL SPECIFICATION

The above average physical properties are values obtained in accordance with accepted test methods.

At - 40°C Superlon Closed Cell Insulation becomes hard and as temperature drops below - 40°C will be increasingly brittle; however this hardening characteristic does not effect thermal efficiency or water vapour permeability.

The Fire Rating standard method of tests conducted under controlled laboratory conditions is a measure of a material to spread flame when compared to a known standard and is not intended to reflect hazards presented by this or any other material under actual fire conditions.

PRODUCT DATA		
AVERAGE PHYSICAL PROPERTIES	RATING	TEST METHOD
Cellular Structure	Very Fine - Closed Cell	-
Density (kg/m³)	70 - 90	ASTM D 1667
Thermal Conductivity Mean Temp. @ 10°C	0.28 Btu.in/hr.ft².F 0.04 W/m°C (0.0346 Kcal/mh°C)	ASTM C 518
Temperature Limits °C	-40°C to + 105°C	-
Thermal Stability (% shrinkage) 7 days - 200°F 7 days - 220°F	 4.5 5.5	 ASTM C 534 ASTM C 534
Fire Resistance	Class 0 Class 1 Self Extinguishing V-0, 5VA	BS 476 Part 6 BS 476 Part 7 ASTM D-635 UL 94 / JIS K6911
Toxicity	4.9	NES 713
Water Absorption (% W/W)	4.37	ASTM C 272 / ASTM 1056
Water Vapour Permeability Perm - In. Max g/Pa.s.m.²	0.29 ug m/N.h 8.17 x 10⁻⁴	ASTM E 96
Mildew Resistance	No Fungal Growth	
Weather and Ultraviolet Resistance	Good	-
Ozone Resistance	Excellent	ASTM D 1171 / JIS K6301
Chemical Resistance	Good	-
Odour	Negligible	-
Flexibility	Excellent	-
Elongation	Excellent	-
Manufacturing Process	Without CFC, Asbestos, Chlorine & Fibre.	



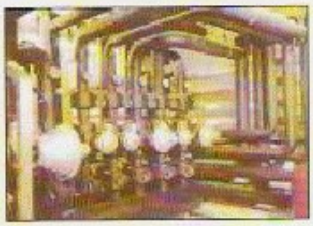
APPLICATION RECOMMENDATION

THICKNESS RECOMMENDATION TO CONTROL CONDENSATION IN PIPE INSULATION OF COOLING NEWS

DESIGN CONDITIONS	PIPE SIZE	PIPELINE TEMPERATURE			
		14.4°C (58°F)	7°C (44.6°F)	2.5°C (36.5°F)	-6°C (20°F)
MILD CONDITION 26.7°C (80°F) 50% RH	10mm ID to 67 mm IPS Above 67mm IPS to 127mm IPS Above 127mm IPS to 254mm IPS	9mm 13mm 13mm	9mm 13mm 13mm	13mm 13mm 13mm	19mm 19mm 19mm
NORMAL CONDITION **29.4°C (85°F)** **70% RH**	**10mm ID to 28mm IPS** **Above 28mm IPS to 67mm IPS** **Above 67mm IPS to 254mm IPS**	**9mm** **9mm** **13mm**	**13mm** **13mm** **19mm**	**19mm** **25mm** **25mm**	**25mm** **25mm** **31mm**
SEVERE CONDITION 32.2°C (90°F) 80% RH	10mm ID to 42 mm IPS Above 42mm IPS to 127mm IPS Above 127mm IPS to 254mm IPS	19mm 19mm 19mm	25mm 25mm 25mm	38mm 38mm 38mm	38mm 44mm 50mm

- Insulation for pipes of 10mm ID to 76mm IPS are available in tubing form with wall thickness of up to 25mm.
- Insulation above 76mm IPS are in precut sheets and available up to 38mm thickness.
- Superlon thickness recommended within the specified temperature range will control condensation on indoor piping under design conditions defined as follows:
- MILD - Air-conditioned and arid areas
- NORMAL - Maximum severity of most indoor conditions seldom exceed 29.4°C and 70% RH
- SEVERE
  - Conditions of high humidity or poorly ventilated areas where temperature may be depressed below the ambient. Under conditions of high humidity, additional thickness of insulation may be required

DESIGN CONDITIONS	METAL SURFACE TEMPERATURE				
	15°C (59°F)	12°C (53.6°F)	7°C (44.6°F)	2.5°C (36.5°F)	-6°C (20°F)
26.7°C (80°F) 50% RH	9mm	9mm	13mm	19mm	25mm
29.4°C (85°F) 70% RH	13mm	13mm	19mm	25mm	31mm
32.2°C (90°F) 80% RH	13mm	19mm	25mm	38mm	50mm



STANDARD INSULATION SIZES

SUPERLON JR 501 TUBING SIZES

- Standard Carton Size : 2080 mm x 400 mm x 330 mm (82 in x 16 in x 13 in)

Precut sheets in standard length of 1220mm are available for pipes above 76mm IPS

SUPERLON		COPPER PIPE		IRON PIPE		TUBING - UNIT LENGTH 6 FEET (1.83M) OR 2 METERS			
Nominal Insulation Size ID		Nominal Pipe Size OD		Nominal Pipe Size IPS		Nominal 9mm wall thickness	Nominal 13mm wall thickness	Nominal 19mm wall thickness	Nominal 25mm wall thickness
mm	Inch	mm	Inch	mm	Inch	No of Pcs Per Carton	No of Pcs Per Carton	No of Pcs Per Carton	No of Pcs Per Carton
6	1/4	6	1/4			168	110	48	-
10	3/8	10	3/8			120	90	36	30
13	1/2	13	1/2	6	1/4	100	72	30	24
16	5/8	16	5/8	10	3/8	90	63	30	20
19	3/4	19	3/4			72	56	25	20
22	7/8	22	7/8	13	1/2	60	42	24	18
25	1	25	1			49	42	20	16
28	1 1/8	28	1 1/8	19	3/4	49	36	20	16
32	1 1/4	32	1 1/4	-	-	42	30	20	15
35	1 3/8	35	1 3/8	25	1	36	30	16	12
42	1 5/8	42	1 5/8	31	1 1/4	30	25	16	12
48	1 7/8	48	1 7/8	38	1 1/2	28	20	15	10
51	2	51	2	-	-	24	20	12	9
54	2 1/8	54	2 1/8			20	18	12	9
60	2 3/8	60	2 3/8	50	2	20	15	10	9
67	2 5/8	67	2 5/8			18	13	9	8
73	2 7/8	73	2 7/8	64	2 1/2	18	13	9	8
76	3	76	3	-	-	18	12	8	8
79	3 1/8	79	3 1/8			15	12	8	6
89	3 1/2	89	3 1/2	70	3	15	12	6	6

SUPERLON JR 502

SHEET SIZES

• Standard Carton Size : 1310 mm x 990 mm x 320 mm (51 in x 39 in x 12.5 in)

STANDARD FLAT SHEETS				
Nominal Thickness		Size Per Sheet		No Of Sheets Per Carton
mm	Inch	m	ft	
3	1/8	1.22 x 0.914	4 x 3	80
6	1/4	1.22 x 0.914	4 x 3	40
9	3/8	1.22 x 0.914	4 x 3	26
13	1/2	1.22 x 0.914	4 x 3	20
15	5/8	1.22 x 0.914	4 x 3	16
19	3/4	1.22 x 0.914	4 x 3	14
25	1	1.22 x 0.914	4 x 3	10
31	1 1/4	1.00 x 1.221	3.281 x 4	8
38	1 1/2	1.00 x 1.220	3.281 x 4	7

CONTINUOUS ROLLS			
Nominal Thickness		Size Per Roll	
mm	Inch	M	FT
3	1/8	1.22 x 9.14	4 x 30
6	1/4	1.22 x 9.14	4 x 30
9	3/8	1.22 x 9.14	4 x 30
13	1/2	1.22 x 9.14	4 x 30
15	5/8	1.22 x 9.14	4 x 30
19	3/4	1.22 x 9.14	4 x 30
25	1	1.22 x 9.14	4 x 30
31	1 1/4	1.00 x 9.14	3.281 x 30
38	1 1/2	1.00 x 9.14	3.281 x 30

ACCESSORIES

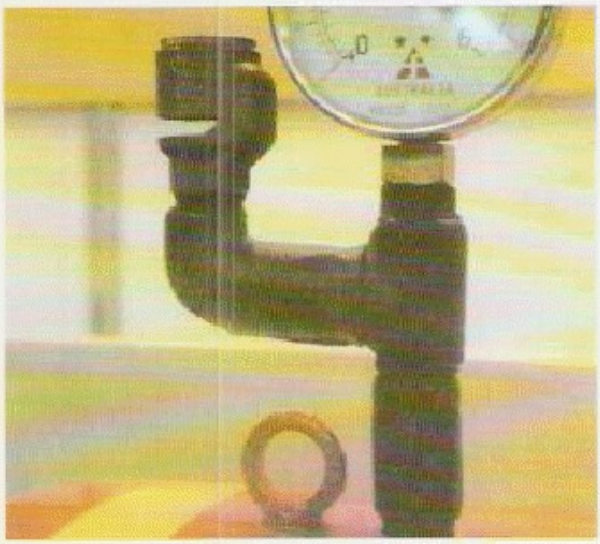
SUPERLON FOAM TAPE
Self adhesive foam tape insulation.
Size: 3mm x 48mm x 30ft.

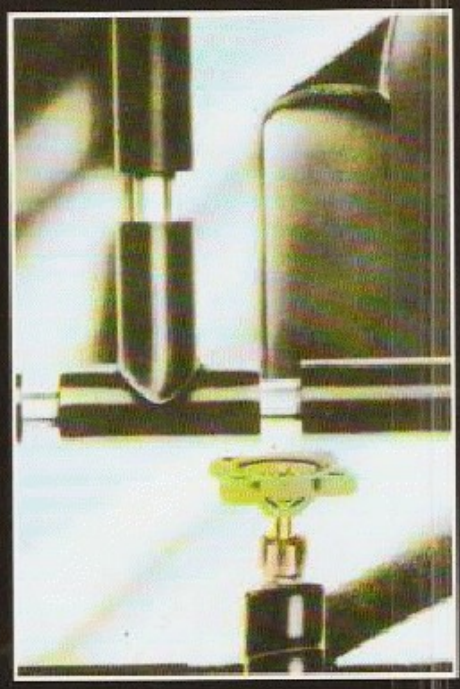
SUPERLON GLUE
Specially formulated black adhesive for use with SUPERLON tubing and sheet.
Available in 1 litre cans.

SUPERLON
Quality Insulations

EXPRESS WARRANTY:

Recommendations for the use of this product are based upon tests believed by us to be reliable. However, since we have no control over the conditions under which the goods are transported or under which the purchaser stores, handles or uses these goods, Superlon (seller) makes no warranty of any kind, express or implies, except that the goods sold shall be of the standard quality of the seller and buyer assumes all risks and liability resulting from the use of the goods, whether used singly or in combination with other goods. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith and Superlon makes no warranties or representations as to the fitness of the product for any particular use. Seller neither assumes nor authorizes any person to assume for the seller any other liability in connection with the sale or use of this product, and there are no oral agreements or warranties collateral to or affecting this product.





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Quality Insulations