Shiv Sales Corporation®

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Nitrile Rubber Insulation

Specification:

PROPERTIES	*RATINGS*	*TEST METHODS*
Cellular Structure	Very Fine - Closed Cell	-
Density (kg/m3)	60-80	ASTM D 1667
Thermal Conductivity @ Mean Temp. 20°C	0.28 Btu.in/hr.ft².F 0.038 W/m°C (0.0328Kcal/mh°C)	BS 874 : Part 2
Temperature Limit °C	- 40°C to + 105°C	-
Thermal Stability (5% shrinkage) 7 days @ 200°F 7 days @ 220°F	 4.5 5.5	 ASTM C534 ASTM C534
Fire Resistance	Class O Class 1 Self Extinguishing V-0, 5VA	BS 476 Part 6 BS 476 Part 7 ASTM D 635 UL94/JIS K6911
Toxicity	3.075	NES 713
Water Absorption (%W/W)	3.85	ASTM C 272 / 1056
Water Vapor Permeability Perm-In.Max g/Pa.s.m² μ Factor	0.11 ug.m/N.h 1.18 x 10 -7 ≥ 6000	 ASTM E96 BS EN ISO 12572
Mildew Resistance	No fungal growth	-
Weather & UV Resistance	Good	-
Ozone Resistance	Excellent	ASTM D1171/JIS K6301
Chemical Resistance	Good	-
Odour	Negligible	-
Flexibility	Excellent	-
Production Process	**W/O CFC, Asbestos, Chlorine, & Fibre**	-
Coating, with release paper	Adhesive, tested OK Under temperature 80°C & 500 hrs	-

TECHNICAL SPECIFICATION

These ratings are average values obtained in accordance with accepted test methods. Superlon products perform best within the operating temperature range. Out of this temperature range. Superlon materials become increasing harden & brittle. However, this hardening characteristic does not affect thermal insulation or water vapour permeability abilities.

The fire rating method of tests conducted under controlled laboratory conditions is a measure of a material to contain flame or heat, & is not intended to reflect hazards presented by this or other material under actual fire conditions.

APPLICATION RECOMMENDATION

THICKNESS RECOMMENDATION TO CONTROL CONDENSATION & REDUCE HEAT LOS

A computer software, available upon request, designed to calculate thickness of the insulation material. To us software, for cold line insulation, need to obtain the ambient weather conditions & line size as programe i Recommended thickness is the minimum value to prevent line condensation. On chiller insulation, need to hav actual outer diameter of pipe. & not the nominal pipe size. On hot water pipe, material thickness keys program input to calculate heat loss, in watt/m2

(Below are examples of a few typical operating conditions. For more information, please refear to your local distributors.,

AIRCOND DUCT

Rectangular Duct Line Temp. 15°C	Medium	Ambient Temp (°C)	Humidity (%)	Recommended Insulation TK (mm)
Shopping Malls				
- open ceiling	Gas	25	70	9
- above ceiling	Gas	30	70	13

INDIVIDUAL UNITS

Pipes Line Temp. 15°C	Medium	Ambient Temp (° C)	Humidity (%)	Recommended Insulation TK (mm)
Individual Unit Aircond				
-tubing size 3/8"	Gas	35	70	9
- tubing size 7/8"	Gas	35	70	13

CHILLER PIPE

Pipes Line Temp. 5°C	Medium	Ambient Temp (° C)	Humidity (%)	Recommended Insulation TK (mm)
Iron Pipe				
- nominal size 80mm, actual size 89.5mm	Liquid	30	70	19
- nominal size 150mm, actual size 166.1mm	Liquid	30	70	19
-nominal size 150mm, actual size 166.1mm	Liquid	30	80	38

HEATERS

Line Temp. 80°C	Medium	Ambient Temp (° C)	Humidity (%)	Heat Loss (watt)
Copper Pipe				
- 22mm Pipe OD, 19mm Insulation thickness	Liquid	30	70	52