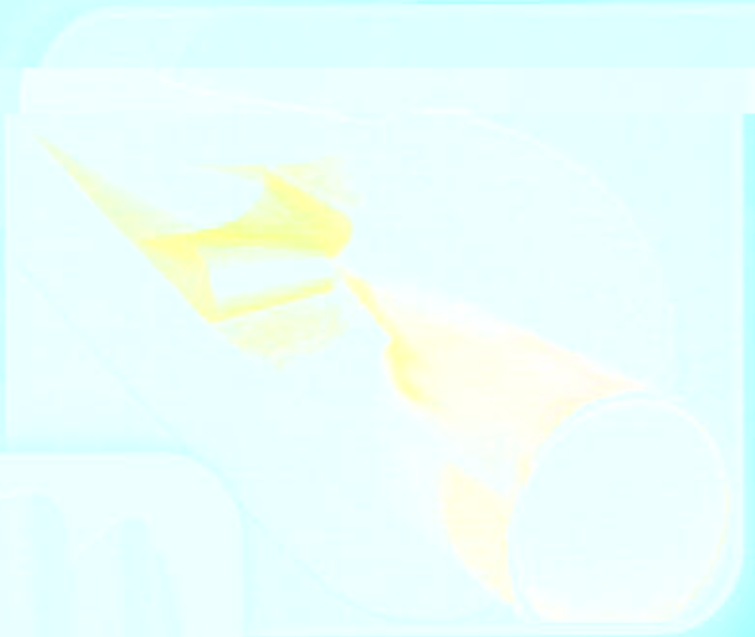




اللوثة للصناعات ذ.م.م.

PEARL INDUSTRIES L.L.C.



PI-NBR



Your Search ends here



PI - NBR

PI-NBR is a flexible thermal insulation material made from closed cell polyolefin foam it's quick and easy to install and available as pipes, sheets and rolls in a wide range of sizes. It's dust free and CFC free with an Ozone depletion potential of zero, which means an environmentally friendly product.

PI-NBR is light, flex and has excellent property of isolation (Thermal & acoustic) It has easy handling characteristics (packing, storage, transportation) cutting and is incorrigible.

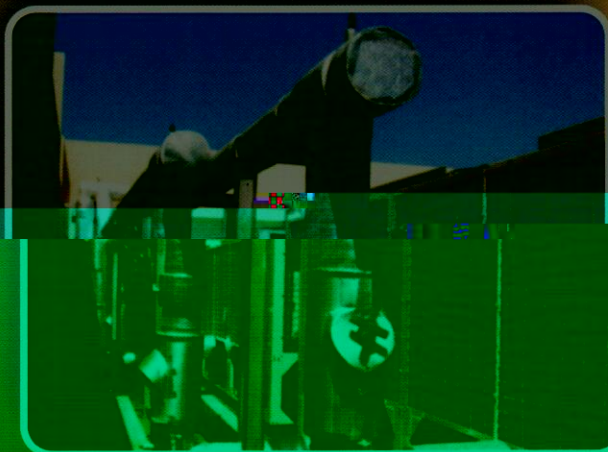


DEW, BUILD UP OF BACTERIA AND FUNGUS PREVENTION

Closed cell structure of our product has improved its properties compared to other insulation products such as rubber-based; wool-glass, fiber-glass etc. It has very low thermal conductivity and negligible water absorption. The closed cell structure not only presents consistent heat insulating properties but also prevents build up of bacterial contamination and formation of fungus and dew.

EASY INSTALLATION

It's capability of easy fabrication and close adhesion to duct makes it an excellent choice for any shape of duct insulation. PI-NBR Does not emit dust or fiber particles during installation, no special tools precautions (face, mask, or gloves) are required during installation.





THERMAL CONDUCTIVITY

The thermal conductivity of a material is a measure of its ability to conduct heat. It is defined as the amount of heat that can be conducted through a unit area of the material in a unit time, under a unit temperature gradient.

The thermal conductivity of a material is a function of its temperature, and it generally increases with temperature. The thermal conductivity of a material is also a function of its microstructure, and it generally increases with the degree of crystallinity.

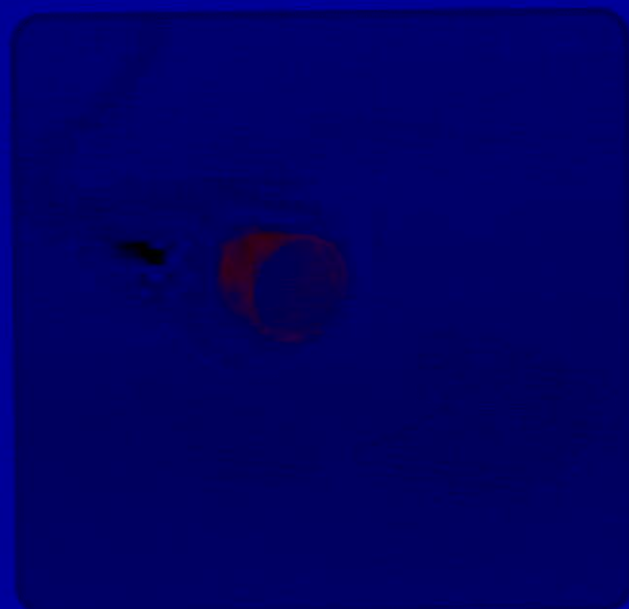


Figure 1 shows the thermal conductivity of a material as a function of temperature. The thermal conductivity of the material increases with temperature, and the rate of increase is greater at higher temperatures. The thermal conductivity of the material is also a function of its microstructure, and it generally increases with the degree of crystallinity.

The thermal conductivity of a material is a function of its temperature, and it generally increases with temperature. The thermal conductivity of a material is also a function of its microstructure, and it generally increases with the degree of crystallinity.



ALUMINUM FOIL SURFACE LAMINATION

The exterior aluminum foil Embossed surface lamination keeps air gaps between foam and Foil decreasing thermal conductivity (λ) and improves fireproof performances. reinforced Foil with Polyethylene film , gives another advantage for mechanical loads tension for foam surface preventing cracks for long time usage and protection of weather condition variability, Aluminum foil surface coating with Low density Polyethylene coat increase it's resistance against weather conditions improves fireproof performances, no any need to paint PI-NBR surface or to install a barrier against weather condition, Ozone and vapor condensation.



SELF ADHESIVE SURFACE COATING

PI-NBR Backside is coated with Acrylic heat-treated self adhesive, Specially produced for bonding P.E, P.U Foam recommended under condition where high bonding power and no mechanical fastening are needed it provides aggressive tack and a high shear strength to bond quickly and provides long time term holding power, this adhesive has excellent characteristics for all elevated temperature resistance, High adhesion strength, high heat resistance and excellent preservation power. High adhesive power and speed dry, it's applied directly to foam surface. Increasing capability of easy fabrication and close adhesion to duct surface makes it an excellent choice for any shape of duct insulation.





APPLICATIONS

PIR (NBR) Sheet / Roll or Round sections-pipe insulation via Closed Cell flexible material having very low thermal conductivity. Non-Hydroscopic structure - water repellent - no - preventing condensation or dew formation.

- Air-Conditioning Ductwork Insulation
- Air-Mechanics Insulation
- Chilled Water Pipe Insulation
- Cold Storage and Freezing Insulation
- Cold Storage and Freezing Chambers

PIR (NBR) Sheet / Roll or Round sections-pipe insulation via Closed Cell flexible material having very low thermal conductivity. Non-Hydroscopic structure - water repellent - no - preventing condensation or dew formation.

PIR (NBR) Sheet / Roll or Round sections-pipe insulation via Closed Cell flexible material having very low thermal conductivity. Non-Hydroscopic structure - water repellent - no - preventing condensation or dew formation.

PIR (NBR) Sheet / Roll or Round sections-pipe insulation via Closed Cell flexible material having very low thermal conductivity. Non-Hydroscopic structure - water repellent - no - preventing condensation or dew formation.

PIR (NBR) Sheet / Roll or Round sections-pipe insulation via Closed Cell flexible material having very low thermal conductivity. Non-Hydroscopic structure - water repellent - no - preventing condensation or dew formation.

PIR (NBR) Sheet / Roll or Round sections-pipe insulation via Closed Cell flexible material having very low thermal conductivity. Non-Hydroscopic structure - water repellent - no - preventing condensation or dew formation.

CHILLED WATER AND OTHER PIPE INSULATION.

PIR (NBR) Chilled water pipe insulation have the same physical and thermal properties of Duct insulation. Its closed cell structure and non ability to absorb water gives it many advantages more than any other type of insulation. It is supplied in the round form factory produced and formed to fit pipe size and wall thickness. It is available in many thicknesses and diameters.

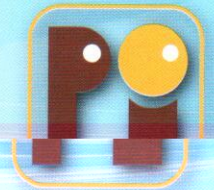
PIR (NBR) Chilled water pipe insulation have the same physical and thermal properties of Duct insulation. Its closed cell structure and non ability to absorb water gives it many advantages more than any other type of insulation. It is supplied in the round form factory produced and formed to fit pipe size and wall thickness. It is available in many thicknesses and diameters.

PIR (NBR) Chilled water pipe insulation have the same physical and thermal properties of Duct insulation. Its closed cell structure and non ability to absorb water gives it many advantages more than any other type of insulation. It is supplied in the round form factory produced and formed to fit pipe size and wall thickness. It is available in many thicknesses and diameters.

PIR (NBR) Chilled water pipe insulation have the same physical and thermal properties of Duct insulation. Its closed cell structure and non ability to absorb water gives it many advantages more than any other type of insulation. It is supplied in the round form factory produced and formed to fit pipe size and wall thickness. It is available in many thicknesses and diameters.

PIR (NBR) Chilled water pipe insulation have the same physical and thermal properties of Duct insulation. Its closed cell structure and non ability to absorb water gives it many advantages more than any other type of insulation. It is supplied in the round form factory produced and formed to fit pipe size and wall thickness. It is available in many thicknesses and diameters.

PIR (NBR) Chilled water pipe insulation have the same physical and thermal properties of Duct insulation. Its closed cell structure and non ability to absorb water gives it many advantages more than any other type of insulation. It is supplied in the round form factory produced and formed to fit pipe size and wall thickness. It is available in many thicknesses and diameters.



TECHNICAL SPECIFICATIONS PRODUCTION RANGE

Material	Closed Cell Cross Linked Polyolefin Foam
Color	Black
Density	50.1 Kg/m ³
Working Temperature	-80 To 120 ° C
Gas Emission	None

Duct, Pipe insulation & Acoustic Lagging

TYPE	THICK. (m.m.)	WIDTH (mm.)
------	---------------	-------------

Duct insulation

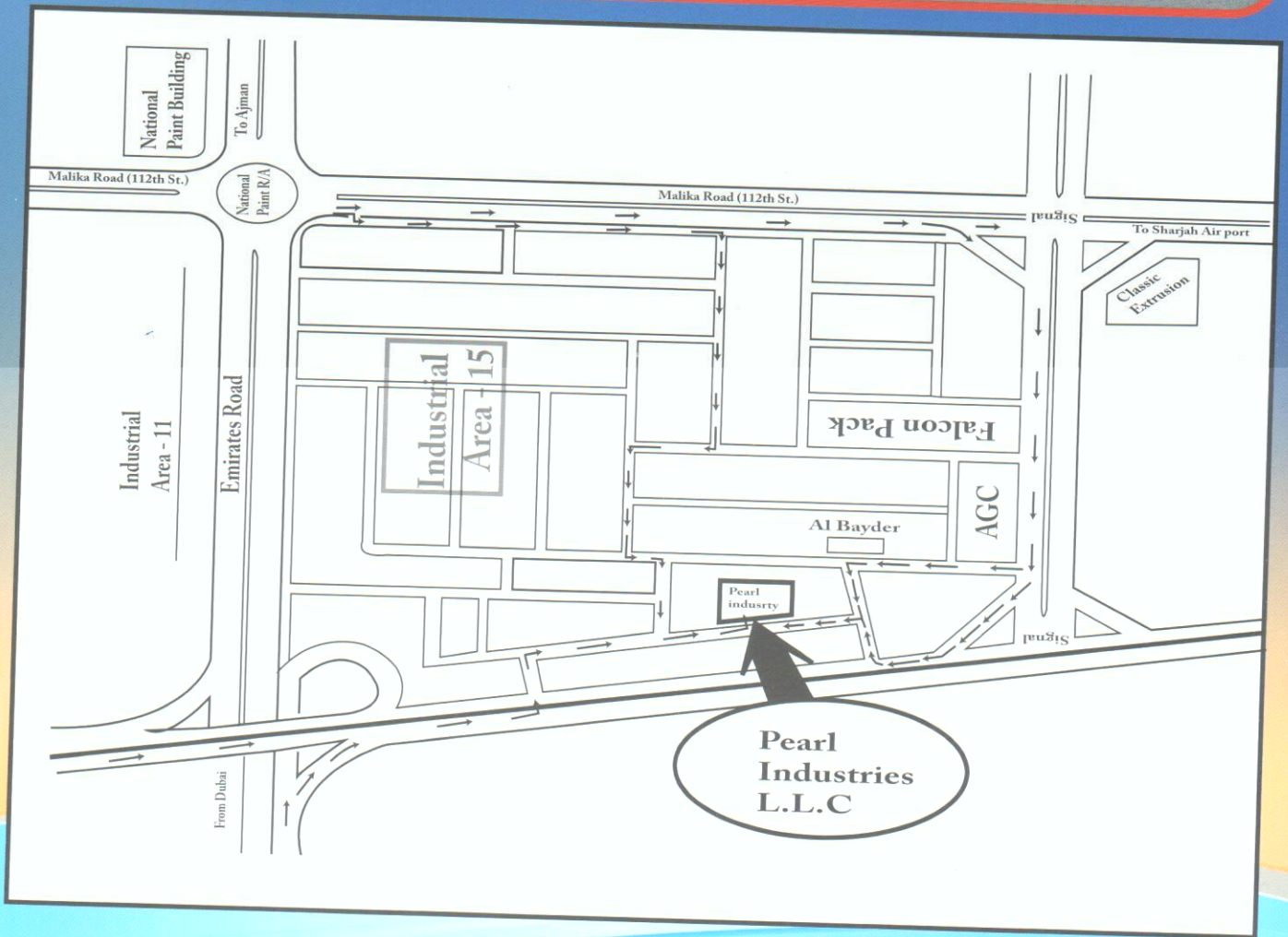
PIN 9P	9	1000
PIN 13P	14	1000
PIN 19P	19	1000
PIN 25P	25	1000
PIN 9PA	9	1000
PIN 13PA	14	1000
PIN 19PA	19	1000
PIN 25PA	25	1000
PIN 9PAA	9	1000
PIN 13PAA	14	1000
PIN 19PAA	19	1000
PIN 25PAA	25	1000

Aging Resistance	Very Good
Water vapour Permeability ASTM D 570	0.030 gm Nh
Thermal Conductivity (γ) ASTM C518 @ Mean Temp 0 ° C	0.032 W mk
Thermal Conductivity (γ) ASTM C518 @ Mean Temp 40 ° C	0.036 W mk
Anti Bacterial ASTM G 22-96	Rating : No Growth (0)
Anti Microbial (Anti Fungal) ASTM C 1338-08	Rating: No Growth (0)

Fire Rating

UL 723-ASTM E84	Class I (A)	Classified by: UL Underwriters Laboratories Inc - USA
BS 476 Part 6:1989 Fire Propagation	Class (0)	Tested By: Warringtonfire Global safety UK
BS 476 Part 7:1997 Surface Spread of Flame	Class (1)	
Fire Safety Compliance with BS Regulation 2000	Class (0)	

Copper tube		Plastic, Iron & Steel Pipe		Remarks:
Nom OD mm	Nom OD mm	Nom OD mm	Nom OD Inch	
	1.4	13	1.2	-Outer surface for all materials can have embossed Laminated Aluminum Foil
	5.16	18	3.4	
10	3.8	25	1	-All Pipe Insulation Sizes and Thickness Supplied in PREF-Formed (Round) Sections
12	1.2	42	1.4	
15	5.8	48	1.2	
18	3.4	50	2	-Other Sizes And Thicknesses Are Available On Request.
22	7.8	80	3	
28	11.8	100	4	



PEARL INDUSTRIES L.L.C

PO Box 21511, Dubai, United Arab Emirates
Tel: +971 4 532 4222 / +971 4 5342 422
Email: info@pearl.ae / www.pearl.ae