

CRYOFLEX™

DESCRIPTION

CRYOFLEX™, a closed-cell polyethylene foam, is supplied in block, sheet, spiral-formed tube, and extruded tube forms. It is a new insulation solution for applications that require flexibility in a cold environment.

CRYOFLEX™ provides improved handling during installation and field fabrications using single seam clam shell application in standard pipe diameters.

APPLICATIONS

CRYOFLEX™ is used to insulate industrial refrigeration systems. Its flexible, small, closed-cell features offer improved thermal conductivity and low moisture absorption and permeability. Designed for multilayered applications, **CRYOFLEX™** provides the ability to build wall thicknesses to 6" while avoiding the waste generated from typical large block fabrications. It also reduces the number of longitudinal seams, therefore allowing fewer paths for water ingress.

CRYOFLEX™ has the highest moisture resistance of any insulation material designed for ammonia refrigeration applications. As the data in table 2 shows, **CRYOFLEX™** absorbs significantly less water than polystyrene, polyisocyanurate or phenolic based insulation materials.

CRYOFLEX™ is clean and resilient, It will not crack and break during shipping, installation or in service. **CRYOFLEX™** is compatible with most thermo set resin adhesives, including vinyl esters and epoxies. Refer to the **CRYOFLEX™** specification and installation guidelines for specific recommendations.

PHYSICAL/CHEMICAL PROPERTIES

CRYOFLEX™ exhibits the properties and characteristics indicated in the physical properties table when tested as rep-

resented. A covering must be used to block ultraviolet radiation and prevent degradation. Other coverings to protect the foam from the elements and to meet applicable fire regulations may also be required. Consultation with local building code officials, design engineers/specifiers or insurance personnel is recommended before application.

ENVIRONMENTAL DATA

CRYOFLEX™ is specifically formulated to provide excellent thermal insulation properties. **CRYOFLEX™** manufacturing chemistry is designed for energy conservation and does not harm the earth's ozone layer.

FIRE PROTECTION

Consideration should be given to the benefits of and the costs of additional fire protection gained by installing automatic fire detection, alarm and suppression systems.

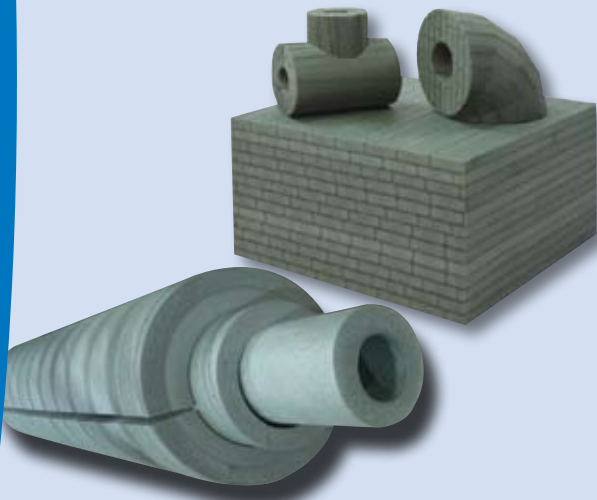
Consultation with local building code officials, design engineers/specifiers or insurance personnel is recommended before application.

FABRICATION/INSTALLATION

CRYOFLEX™ is easy to fabricate into various sizes and shapes to meet specific design needs. However, because of the critical technical design aspects of many of its applications, Nomaco Insulation recommends that qualified designers or consultants design the total system. Contact a local Nomaco Insulation representative for more specific instructions.

TECHNICAL SERVICES

Nomaco Insulation can provide technical information to help address questions when using **CRYOFLEX™**. Technical personnel are available at 866-876-2684.



SIZES AVAILABLE

	Laminated Block	Sheet
Thickness:	8" (20 cm)	1" (2.5 cm) and 2" (5 cm)
Width:	36" (91 cm)	36" (91 cm)
Length:	48" (122 cm)	48" (122 cm)

Pipe Cover

Wall thicknesses 1" (2.5cm) thru 6" (15.2 cm)
Standard IPS pipe diameters 1/2" (2.5 cm) thru 24" (61 cm)
Length 3 LFT (.9m)

CRYOFLEX™ is distributed through a network of fabricators and distributors. For more information, call 866-876-2684.

Table 1: PHYSICAL PROPERTIES

Physical Properties	Nominal	ASTM Standard
Max. temp (°F)	200	C 1427
Min. temp (°F)	-200	C 1427
Density (lb/ft ³)	1.9	D 1622
Density (kg/m ³)	31.0	D 1622
pH	6 - 8	
Min Compression Resistance @ 10% Strain (psi)	6.0	D 3575
Thermal Conductivity (btu•in/hr•ft ² /°F)		C 518
@ 75	0.261	
@ 50	0.248	
@ -100	0.173	
Dimensional Change @ Max Temp for 24 hours	4%	C 356
Surface Burning Characteristics @ 1" Wall (flame/smoke)	35/115	E 84
Water Absorption by Volume		C 240
@ 2 Hrs	0.01%	
@ 24 Hrs	0.05%	
Water Vapor Transmission Rate (g/h/m ²) 1" thick @ 75°F, 50% RH	0.011	E 96
Water Vapor Permeability (grains/ft ² •hr•inHg)	0.048	E 96
Coefficient of Thermal Expansion (in/in/°F)	181.6 x 10 ⁻⁶	E 228
Outside Dimensions	Complies	C 585

Table 2: WATER ABSORPTION OF 12" x 12" x 1" FOAM INSULATION PANELS

