



CRYO-BOND 837
BUTYL RUBBER ELASTOMER

Product Description

CRYO-BOND 837 is designed for use as a cryogenic sealant and coating over polyurethane and Polyisocyanourate (PIR) rigid insulating foams. It is also used as a vapor stop sealant for Liquid Natural Gas insulation systems.

CRYO-BOND 837 will function over a wide range of temperatures from -320° F to +250° F (-196°C to +121°C).

CRYO-BOND 837 is resistant to many industrial chemicals and can be used in harsh industrial environments.

CRYO-BOND 837 is formulated in a convenient one to-one mixing ratio which is designed for conventional batch mixing or application with plural component spray systems. It may be used in combination with other Valpac elastomeric coatings.

- Fire retardant
- Very low permeability
- Good chemical resistance
- High solids
- High build
- Convenient mixing ratio

Recommended Uses

CRYO-BOND 837 is designed for use over polyurethane foam and other substrates where a coating with low permeability is required, such as cryogenic systems.

CRYO-BOND 837 is compatible with most Valpac finish coat elastomers. For other compatible coatings, contact Valpac's technical staff

Features/Typical Properties

Solids Volume (Calculated)	63% ±1%
Solids Weight ASTM D-1353	73% ±2%
Theoretical Coverage	962 mils sq. ft./gallon
Recommend Thickness	15-40 mils, depending on spec. 1.6 to 4.2 gal per 100 sq .ft.
Mix Ratio (by volume)	1"A": 1"B"
Number of Coats	1-3, depending on specification.
Weight (ASTM D-1475)	9.6 pounds +/- 0.5 pounds (mix)
Shelf Life 30°F (-10°C) 85°F (29°C)	1 year
Specific Gravity	1.15
Flash Point Tag Closed Cup	45 °F (7.22 °C)
Viscosity [Brookfield #6 @ 20 rpm]	25,000 cps.
Service Temperature Limits	-320° F to 250° F (-196° C to 121° C)
Color	Black Only

Specification Data

Elongation @ 75°F ASTM D 412	180% +/- 25
Tensile Strength ASTM D412 (force applied at point of rupture)	375 +/- 25 PSI 2.6 +/- 0.2MPa
Permeability ASTM E 96 @ 30 mils.	0.0002 U.S. Perms 0.0001 Metric Perms
Water Absorption ASTM D 471	0.5% max
Accelerated Weathering ASTM D 822	After 1500 hours no loss of flexibility
Low Temperature Flexibility ASTM D1737	Passes

Ordering Information:

Packaging:	10- gallon and 110 gallon kits
Shipping Weight:	10-gal kits: 104 Lbs 110- gal kits: 1152lbs
Freight Classification:	Coating Solution, Flammable Liquid UN1139, Freight_Class 55

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Application Method: When used as a vapor stop sealant, Cryo-Bond 837 is applied by brush or roller over the surface of the insulation layers from the outside layer down to the pipe substrate. Cryo-Bond 837 should be applied in 2 coats with glass or synthetic reinforcing cloth imbedded in the first layer. Total dry thickness should be .020-.030inches (.78mm-1.2mm) Care must be taken to produce a uniform void/pinhole free membrane.

Batch Mixing: Thoroughly power agitate A & B materials until completely mixed. Do not mix more material than can be used within the pot life of the material.

Pot Life:

MATERIAL TEMPERATURE	TIME
50°F to 60 °F (10°C to 16 °C)	18 to 24 hours
70 °F to 80 °F (21°C to 27°C)	8 to 12 hours
90°F to 100 °F (32°C to 38°C)	1 to 2 hours

Safety Information:

- *Read the Material Safety Data Sheet (MSDS) and container labels for detailed health and safety information.
- *Do not apply material in enclosed areas without adequate air exchange and ventilation.
- *All application personnel must use fresh air respirators or fresh air hoods.
- *Wear protective clothing, gloves and eye protection.
- *Breathing fumes or contact with the skin may cause severe allergic reactions.
- *This product is intended for industrial use by properly trained professional applicators only.
- * Contains no lead or asbestos.

Thinning: None normally necessary. Use Toluene or Xylene when necessary.

Clean-Up: To clean spray equipment, use Toluene or Xylene .

Application Guidelines:

1. Don't apply over wet or contaminated substrates or when inclement weather is imminent.
2. These materials are not compatible with urethane foam or coatings or water-based products. Thoroughly flush and clean spray equipment prior to introducing the Cryo-Bond 837.

Cure Times:

The curing rate will vary depending on film thickness, ambient air and substrate temperatures and humidity.

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