



**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<br>2.6 +/- 0.2MPa         |
| Permeability ASTM E 96 @ 30 mils.                              | 0.0002 U.S. Perms<br>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<br>110- gal kits: 1152lbs                 |
| Freight Classification: | Coating Solution, Flammable<br>Liquid UN1139, Freight_Class 55 |

# CRYO-BOND 837

## BUTYL RUBBER ELASTOMER

**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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