

# TYPICAL PROPERTY SHEET

**Biosoluble CryoTherm®**  
NON-OUTGASSING GLASS FIBER NONWOVENS

## Biosoluble CryoTherm Family®

NON-OUTGASSING GLASS FIBER NONWOVENS

### 1303B, 233B (NON-BIOPERSISTENT)

#### Super-Insulating for Super-Cooled Liquid Gases

CryoTherm® series is a family of 100% inorganic glass fiber that prevents costly evaporation losses of stored cryogenic liquid gases. In addition to providing an exceptionally efficient thermal barrier against heat transfer in insulated vacuum storage containers, this family of products is:

- Made of biosoluble microfiberglass
- Safe for human exposure (once inhaled, it will dissolve and exit the body)
- Thin, light, and highly uniform
- Specifically engineered to work at temperatures approaching -452°F (4K)
- Designed to maintain the integrity of sealed vacuum containers
- Highly recommended for use with potentially explosive substances, such as liquid hydrogen and liquid oxygen
- US DOT MC-338 (oxygen compatibility) certified and meets international testing requirements

#### Applications

- Cylinders
- Dewars
- ISO tanks (intermodal)
- Microbulk
- Mini storage (small plant)
- Rail cars
- Storage tanks
- Trailers
- Vacuum jacketed piping



For the single best option against cryogenic evaporation losses, trust CryoTherm® family of products.

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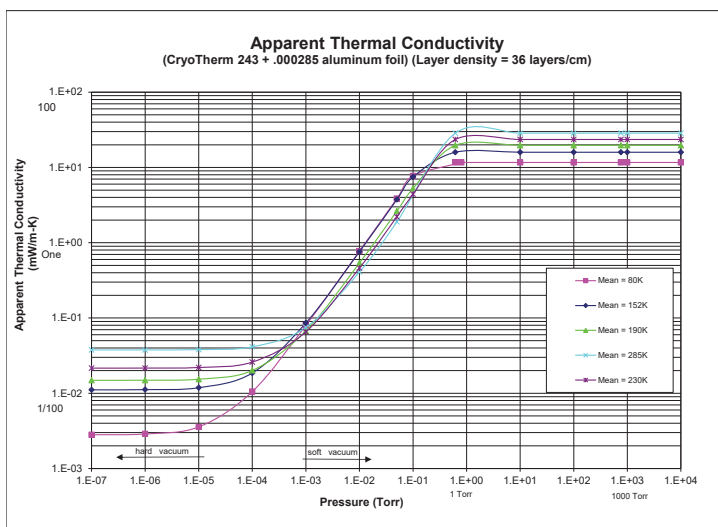
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### 1303B, 233B (NON-BIOPERSISTENT)

Material Property	Biosoluble CryoTherm® Product	
	1303B	233B
Basis Weight, lb/2880ft <sup>2</sup> (g/m <sup>2</sup> )	8.5 (14)	9.5 (16)
Thickness, mil (mm)	3.1 (0.079)	3.3 (0.084)
Density, lb/ft <sup>3</sup> (g/cc)	11 (0.18)	12 (0.19)
Machine Direction Tensile Strength, lb/in (kg/25 mm)	0.60 (0.27)	0.70 (0.31)
Thermal Conductivity at 70°F (21°C) & ambient pressure, BTU - in/hr - ft <sup>2</sup> - °F (W/m K)	0.26 (0.037)	0.26 (0.037)

### Biosoluble CryoTherm® Performance



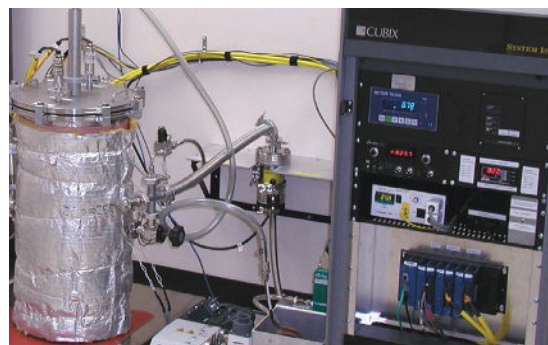
Note: The thermal performance graph represents the historical CRS Wrap (CryoTherm 243 and Aluminum foil). The CRS Wrap with Biosoluble CryoTherm is expected to offer the same performance.

Note: All product data is nominal and does not represent a specification. All data and statements concerning these products may be considered as being indicative of representative properties and characteristics obtainable. We make no warranty, expressed or implied, concerning actual use or results because of industry specific influences.

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### Testing/Engineering Services

- Thermal imaging for performance validation
- Thermal conductivity for material characterization
- Thermal modeling for engineering solutions



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