bylix Scientific

Technical Data Sheet

B825 Thermal Insulation

High Performance, Inorganic, Noncombustible

Bylix™ B825 is designed to meet the toughest performance requirements, cost effectively. These amorphous silicate based fiber mats utilize proprietary entanglement pattern for optimum thermal conductivity. This hybrid out performs "E" Glass, Basalt and Vitreous Silicate mats.

Features:

- Low thermal conductivity, excellent thermal insulation.
- High temperature duration, low heat shrinkage and heat loss.
- 100% inorganic fiber, non combustible.
- High porosity, excellent sound absorption.
- Available in 1.0", 0.5" and 0.25" thicknesses.

Typical Chemical Composition	
Silicone Dioxide	57%
Calcium Oxide	14%
Aluminum Dioxide	15%
Boron Oxide	9%
Sodium and Potassium Oxide	1%
Magnesium Oxide	4%

Temperature Limits	
Continuous Use	1517°F (825°C)
Intermittent	1652°F (900°C)
Melting Point	2050°F (1121°C)

Temperature Performance, 1"	
Hot Face	Cold Face
1320°F (715°C)	192°F (89°C)
1382°F (750°C)	278°F (137°C)
1517°F (825°C)	360°F (183°C)

Thermal Conductivity (W/(mK))	
300°F (149°C)	0.041
500°F (260°C)	0.056
700°F (371°C)	0.073
1000°F (538°C)	0.128
1500°F (815°C)	0.243
1800°F (982°C)	0.327

Material Properties	
Tensile Strength (psi)	6.65
Density (lb/ ft^3)	9.0-9.5
Hot Side Fiber Diameter	9µ

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