

Gemcolite® FB FG23-111

**Gemcolite® FB FG23-111 Material Overview**

**Gemcolite®** FB FG23-111 is a special blend of ceramic fiber and a high temperature ceramic powder, used to enhance the density, strength, and physical properties of the board by utilizing mullite chemistry. It uses man-made vitreous alumina-silicate fibers, organic and inorganic binders, and mullite to generate a strong board with excellent insulating properties while enhancing density. FG23-111 resists thermal shock allowing for faster cycle times. RSI's vast forming and machining capabilities allow **Gemcolite®** FB FG23-111 to be made in a variety of shapes, besides standard boards and blocks, and can be tailor made to customer required shapes and specifications. This material is also easily cut and formed using hand-tools. To answer any questions, or if you have special requirements that aren't covered by this product, call for our expert assistance at (330) 938-2101.

**Gemcolite® FB FG23-111 Technical Information**

<u>Property</u>	<u>Typical Results</u>
Density	18 to 22 lb/ft <sup>3</sup>
Modulus of Rupture (MOR)	
Supplied	125 lb/in <sup>2</sup> , Minimum
After First Use	75 lb/in <sup>2</sup> , Minimum
Compressive Strength (10% Compression)	4000 lb/ft <sup>2</sup>
Maximum Use Temperature	2300° F
Suggested Use Temperature	2150° F
Melting Point	3260° F
Linear Shrinkage	
1800° F	1.50%
2300° F	5.50%
Thermal Conductivity	
600° F	0.55 Btu-in/hr/ft <sup>2</sup> /°F
800° F	0.63 Btu-in/hr/ft <sup>2</sup> /°F
1200° F	0.92 Btu-in/hr/ft <sup>2</sup> /°F
1600° F	1.35 Btu-in/hr/ft <sup>2</sup> /°F
2000° F	1.97 Btu-in/hr/ft <sup>2</sup> /°F
Typical Chemical Analysis (After Use)	
SiO <sub>2</sub>	35 % (By Weight)
Al <sub>2</sub> O <sub>3</sub>	25 % (By Weight)
Mullite Additive	40% (By Weight)

**Other Information**

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