

Gemcolite® FG23-101

Gemcolite® FG23-101 Material Overview

FG23-101 **Gemcolite®** is Refractory Specialties Inc's standard insulating fiber board. It uses man-made vitreous alumina-silicate fibers, with organic and inorganic binders, to generate a relatively strong board with excellent insulating properties while maintaining a low density when compared to insulating brick or monolithic refractory blocks and shapes. FG23-101 resists thermal shock allowing for faster cycle times, and has excellent acoustic absorbing properties. RSI's vast forming and machining capabilities allow **Gemcolite®** FG23-101 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. **Gemcolite®** FG23-101 is available in standard density (LW) and high density (HD). 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® FG23-101 Technical Information

<u>Property</u>	<u>Standard (LW)</u>	<u>High Density (HD)</u>
Density	14 to 18 lb/ft ³	20 to 24 lb/ft ³
Modulus of Rupture (MOR)		
Supplied	100 lb/in ²	250 lb/in ²
After First Use	50 lb/in ²	90 lb/in ²
Compressive Strength (10% Compression)	4000 lb/ft ²	5000 lb/ft ²
Maximum Use Temperature	2300° F	2300° F
Suggested Use Temperature	2150° F	2150° F
Melting Point	3260° F	3260° F
Linear Shrinkage		
1400° F	0.27%	0.11%
1600° F	1.69%	0.32%
2000° F	2.93%	1.70%
Thermal Conductivity		
400° F	0.36 Btu-in/hr/ft ² /°F	N/A
800° F	0.56 Btu-in/hr/ft ² /°F	0.55 Btu-in/hr/ft ² /°F
1200° F	1.02 Btu-in/hr/ft ² /°F	0.80 Btu-in/hr/ft ² /°F
1600° F	1.34 Btu-in/hr/ft ² /°F	1.00 Btu-in/hr/ft ² /°F
2000° F	2.00 Btu-in/hr/ft ² /°F	1.22 Btu-in/hr/ft ² /°F
Typical Chemical Analysis (After Use)		
SiO ₂	55 % (By Weight)	55 % (By Weight)
Al ₂ O ₃	45 % (By Weight)	45 % (By Weight)

Other Information

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