

## Si<sub>3</sub>N<sub>4</sub> Bonded SiC Bricks

### Composition

SiC	≥ 72.0
Si <sub>3</sub> N <sub>4</sub>	≥ 21.0
Fe <sub>2</sub> O <sub>3</sub>	≤ 0.3
Si	≤ 0.3
Apparent Porosity (%)	≥ 16.0
Bulk Density (g/cm <sup>3</sup> )	≥ 2.68



Compressive Strength (Mpa)	Room temperature	≥ 180.0
Bending Strength (Mpa)	Room temperature	≥ 45.0
	1400°C	≥ 55.0
Thermal Conductivity (W/m-K)	650°C	18.5
	1000°C	16.0
Thermal Diffusivity (cm <sup>2</sup> /s)	650°C	0.064
	1000°C	0.053
Linear Expansion	30°C - 1100°C	4.02 x 10 <sup>-6</sup> (k <sup>-1</sup> )
	30°C - 1100°C	4.06 x 10 <sup>-6</sup> (k <sup>-1</sup> )

### Applications

Aluminum Electrolytic Cell  
Chemical Reaction Pots  
High Temperature Furnaces  
Piping for Aluminum Transport

NOTE: The information contained in this bulletin is believed to be accurate and reliable but is not to be construed as implying any warranty or guarantee of performance. Data are subject to reasonable variations and should not be used for specification purposes.

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5385 Orchard View Drive S.E. · P.O. Box 30070  
East Canton, Ohio USA 44730  
Phone: +1 (330) 488-1651  
Email: [sales@knightmaterials.com](mailto:sales@knightmaterials.com)  
[www.knightmaterials.com](http://www.knightmaterials.com)