

 <p style="text-align: center;">Product Specifications <i>Industrial Ceramics Business</i></p>	<p>ICB/QSP/BIPS Revision: R0</p>
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TECHNICAL BULLETIN

N-DURANCE™ Nitride-Bonded Silicon Carbide

CN-800

N-DURANCE™ is the latest evolution in silicon nitride bonded silicon carbide from Saint-Gobain Ceramic Materials. Its superior oxidation resistance means longer life while its strength and low mass create more efficient kiln furniture designs that reduce costs.

It can be used to manufacture a variety of unique and standard kiln furniture shapes including beams, posts and plates.

Typical Chemical Analysis:	%	
SiC	70	
Si ₃ N ₄	25	
Oxides	5	
Density:	2.75 g/cc	
Apparent Porosity:	≤1%	
Modulus of Rupture:	<u>MPa</u>	<u>psi</u>
20°C (68°F)	170 to 180	24,000 to 26,000
1,400°C (2,552°F)	170 to 190	24,000 to 28,000
Modulus of Elasticity:	240 GPa	35 x 10 ⁵ psi
Thermal Conductivity:		
1,000°C (2190°F)	20 W / (m·K)	138 BTU-in. hr.ft ⁻² ·°F
Coefficient of Thermal Expansion:	4.4 x 10 ⁻⁶ per °C	2.4 x 10 ⁻⁶ per °F
Maximum Service Temperature:	1,450°C	2,642°F
Depending on operating conditions		

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Rev. 01/03


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