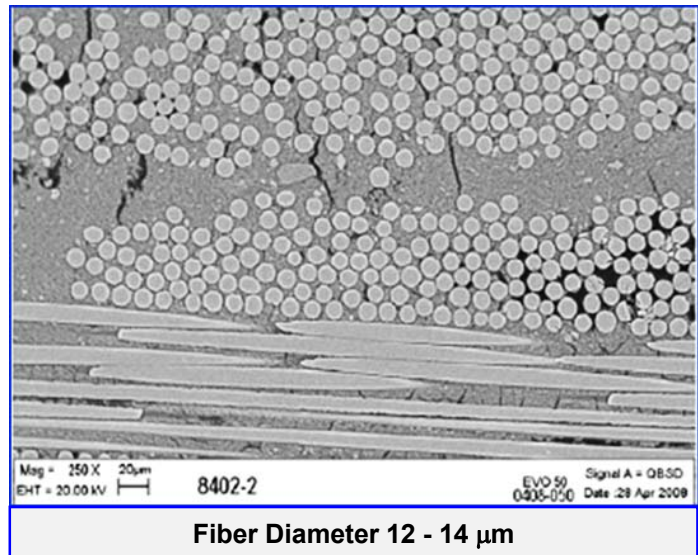


A/N720 CMC

A/N720 ceramic matrix composite is comprised of Nextel™ N720 fiber in an Alumina matrix. This datasheet provides nominal properties for a typical layered-fabric composite architecture with 0/90 fiber reinforcement.

PHYSICAL PROPERTIES

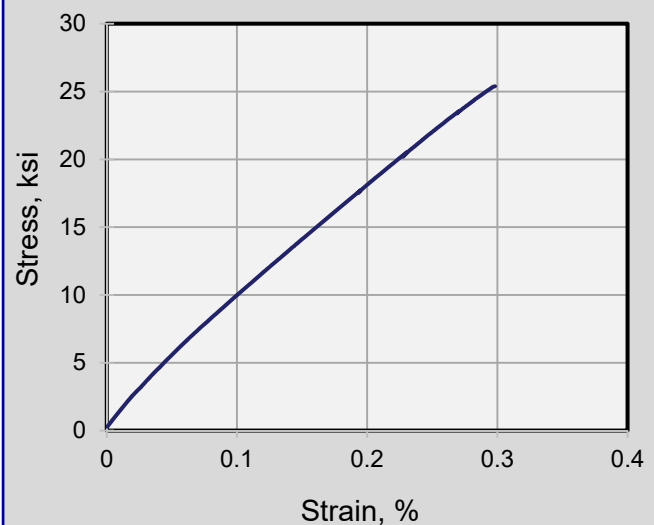
Fiber/Fabric	1500D 8HS Nextel™ N720
Fiber Coating	None
Matrix	Alumina
Filler	Alumina
Typical Ply Thickness, mils	9.1
Fiber Volume Fraction, %	46
Bulk Density, g/cc (pci)	2.7 (0.10)
Open Porosity, %	~25
Max Use Temperature (Continuous/Short-Term)	1200°C/1300°C



MECHANICAL PROPERTIES

Tensile Strength, ksi	25.8
Tensile Modulus, Msi	11.4
Tensile Strain-at-Failure, %	0.32
Interlaminar Tensile Strength, ksi	0.95
Flexure Strength, ksi	31.6
Compressive Strength, in-plane, ksi	36.7
Compressive Modulus, in-plane, Msi	13.3
Iosipescu Shear Strength, in-plane, ksi	5.9
Iosipescu Shear Modulus, in-plane, Msi	3.3
Shear Strength, Interlaminar (SBS), ksi	1.9

A/N720 In-Plane Tensile Stress-Strain Behavior



COI Ceramics, Inc., offers a variety of advanced ceramic products that are engineered to meet the demanding requirements of high-temperature applications. See the COI Ceramics website for a complete review of the materials solutions available for your applications. www.coiceramics.com

A/N720 CMC

THERMAL PROPERTIES			
Temperature	20°C (68°F)	700°C (1292°F)	1200°C (2192°F)
Specific Heat, cal / g °C	0.18	0.30	0.32
Thermal Diffusivity, in-plane, cm ² /s	0.021	0.009	0.006
Thermal Conductivity, in-plane, W/m·K	4.21	2.93	2.29
Coeff. of Thermal Expansion, in-plane, ppm/°C	2.6	6.0	6.6
Coeff. of Thermal Expansion, transverse, ppm/°C	3.8	6.5	7.1

