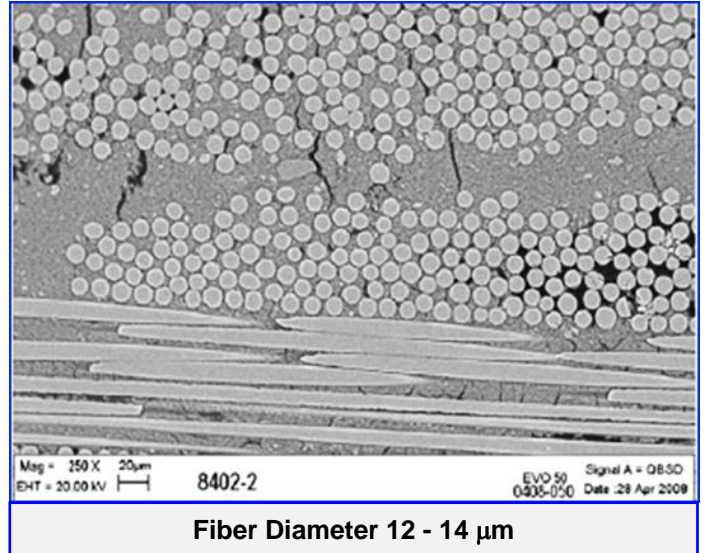


AM/N720 CMC

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

PHYSICAL PROPERTIES

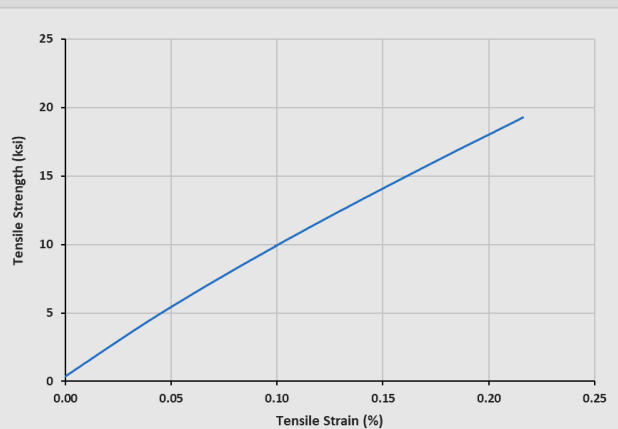
Fiber/Fabric	1500D 8HS Nextel™ N720
Fiber Coating	None
Matrix	Alumina/Mullite
Filler	Alumina/silicate
Typical Ply Thickness, mils	10
Fiber Volume Fraction, %	44
Bulk Density, g/cc (pci)	2.6 (0.10)
Open Porosity, %	~24
Max Use Temperature (Continuous/Short-Term)	1200°C/1400°C



MECHANICAL PROPERTIES

Tensile Strength, ksi	19.6
Tensile Modulus, Msi	9.3
Tensile Strain-at-Failure, %	0.23
Interlaminar Tensile Strength, ksi	TBD
Flexure Strength, ksi	TBD
Compressive Strength, in-plane, ksi	TBD
Compressive Modulus, in-plane, Msi	TBD
Iosipescu Shear Strength, in-plane, ksi	TBD
Iosipescu Shear Modulus, in-plane, Msi	TBD
Shear Strength, Interlaminar (SBS), ksi	1.5

In-Plane Tensile Stress-Strain Behavior



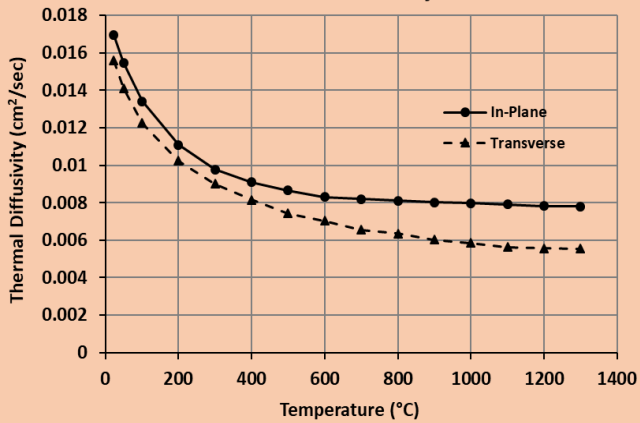
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AM/N720 CMC

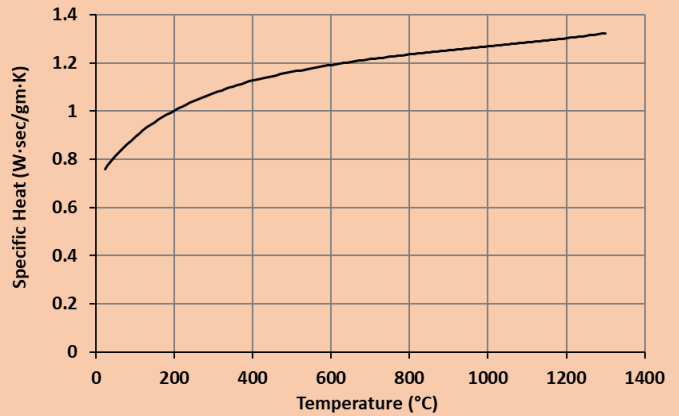
THERMAL PROPERTIES

Temperature	93C (200°F)	700°C (1292°F)	1200°C (2192°F)
Specific Heat, W·sec/gm·K	0.8135	1.2156	1.3027
Thermal Diffusivity, cm ² /sec	0.01341	0.00819	0.00782
Thermal Conductivity, in-plane, W/cm·K	0.02885	0.02398	0.02456
Coeff. of Thermal Expansion, in-plane, ppm/°C	4.5	6.1	6.7
Coeff. of Thermal Expansion, transverse, ppm/°C	4.7	6.1	6.7

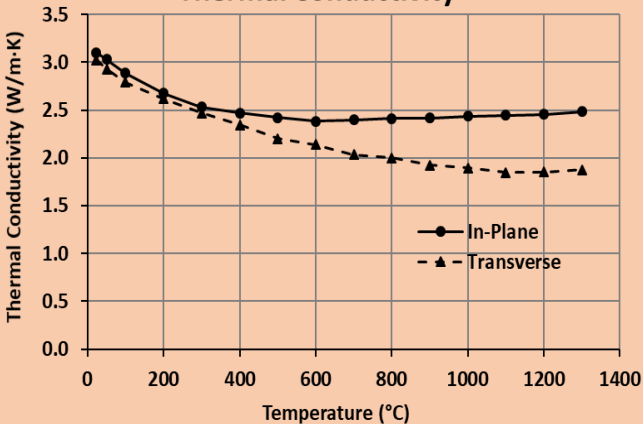
Thermal Diffusivity



Specific Heat



Thermal Conductivity



Thermal Expansion

