

FUSED SILICA  
HOT PRESS PLATENS  
CASTABLE CERAMICS  
FIRED SHAPES  
AEROSPACE TOOLING

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HI-TEMP INSULATIONS  
CALCIUM SILICATE BOARDS  
MILLBOARD AND BLANKET  
PAPERS AND CEMENTS  
CUTTING AND FABRICATING

## Wearcomp

Wearcomp is a high temperature - high performance carbon fiber reinforced thermoset polyimide composite. This material possesses an unmatched strength to weight ratio and should be specified when any of the following properties are required:

- ◇ High Temperature Resistance
- ◇ Self Lubricating
- ◇ High Impact Strength
- ◇ Excellent Corrosion Resistance
- ◇ Low Wear
- ◇ Light Weight
- ◇ Dimensional Stability

### General Information

Matrix: Polyimide Resin  
Reinforcement: Carbon Fiber  
Fiber Length: 1" Ave.  
Specific Gravity: 1.55  
Available Forms: Plates, Rods, Tubes,  
Custom Molded, and  
Machined Parts

Property	Units	Value
Density	PCF	98
Compressive Strength @ 73°F	PSI	104,000
@ 500°F	PSI	69,000
Flexural Strength @ 73°F	PSI	80,000
@ 500°F	PSI	75,000
Flexural Modulus @ 73°F	PSI	5,600,000
@ 500°F	PSI	5,200,000
Tensile Strength @ 73°F	PSI	49,000
@ 500°F	PSI	41,000
Tensile Modulus @ 73°F	PSI	5,700,000
@ 500°F	PSI	5,200,000
Izod Impact Strength (Notched) @ 73°F	Ft. Lb./In.	12
Coefficient of Friction (Unlubricated Against Steel)		.15 - .20
Limiting PV (Unlubricated Against Steel)		80,000
Maximum Operating Temperature	°F	850
Continuous Operating Temperature	°F	600
Coefficient of Linear Thermal Expansion		
Parallel	In./In./°F X 10 <sup>-6</sup>	15.0
Perpendicular	In./In./°F X 10 <sup>-6</sup>	2.0
Thermal Conductivity	BTU-In./Hr.-Ft. <sup>2</sup> -°F	8.3
Chemical Resistance (Strong Bases w/pH > 10 Not Recommended)		Excellent
Machinability		Good
Max. Sheet Size	Inches	20 X 30

\* The Wearcomp properties listed represent typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Check with your supplier to assure current information