

# CeraShield

## Introducing CeraShield-2500™

A New 2500°F Heat Shield Now Available.

MATECH/GSM is pleased to announce the limited availability of a new thermal protection system (TPS) heat shield material based upon highly stable silicon oxycarbide (SiOC). This rigid, entirely fibrous structural insulation material has a superb combination of low thermal diffusivity/conductivity and high emissivity at high temperatures. Based on MATECH's patented "Net-to-Shape™" process, it can be shaped into varying fiber volume fractions. What is offered currently is our baseline material at 16% fiber volume fraction.

### Representative Properties

Density:	0.34 gm/cc
Compressive Strength:	
Room Temperature	1.52 M Pa (220 psi)
2200F	5.53 M Pa (800 psi)
Thermal Diffusivity:	
100°C	0.0041 cm <sup>2</sup> /s
1000°C	0.0032 cm <sup>2</sup> /s
CTE:	0.3 x 10 <sup>6</sup> /K
Fiber Volume Fraction	16 %
Porosity:	84 %
Standard Size:	10 cm x 10 cm x 1 cm



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