

Cermatec™

Ceramic Matrix Technology



Boulden Cermatec™ is a composite material with carbon fibers in a silicon carbide ceramic matrix. It can withstand continuous process temperatures up to 800°C (1470°F). Cermatec™ offers thermal shock resistance and impact resistance beyond traditional ceramic or carbon-based materials. It can be used in clean or abrasive services across a broad range of chemicals.

Examples of where Cermatec™ can be used:

- Mag-drive pump bearings
- Canned motor pump bearings
- Product-lubricated thrust bearings
- Product-lubricated screw pump bearings
- Gear pump idler bushings
- Centrifugal pump wear rings and throttle bushings
- Vertical pump shaft bearings

Cermatec™ CMT 211 Physical Properties

Property	Unit of Measure	Typical Values
Density	g/cm ³	2.0 - 2.3
Flexural Strength (4-pt bend)	MPa	240 - 290
Elastic Modulus	GPa	81.1
Tensile Strength	MPa	240 - 276
Compressive Strength	MPa	434
Thermal Conductivity - Radial	W/mK	2
Thermal Conductivity - Axial	W/mK	10
Coefficient of Thermal Expansion - Radial	10 ⁻⁶ m/m/°C	1.4
Coefficient of Thermal Expansion - Axial	10 ⁻⁶ m/m/°C	1.7

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