

Ceramic Reinforced PEEK

Catlog Number: CRSM-0060

• Description

High-stiffness PEEK composite with ceramic particles for superior compressive strength and electrical insulation in ultra-high heat environments.

• Basic Information

Base Material: Polyetheretherketone

Reinforcement Type: Micro-Ceramic Particles

Reinforcement Volume (%): 0.2

Density (g/cm³): 1.48

Tensile Strength (MPa): 135

Tensile Modulus (MPa): 9800

Elongation at Break (%): 2.5

Flexural Strength (MPa): 195

Flexural Modulus (MPa): 9200

Heat Deflection Temp (0.45MPa): 305

Glass Transition Temp (Tg): 143

Melting Point (°C): 343

Thermal Conductivity (W/mK): 0.45

Flame Retardancy (UL94): V-0

Surface Resistivity (Ω): 10¹⁶

Water Absorption (%): 0.08

Printing Temp (°C): 400-450

Bed Temp (°C): 125-155

Chamber Temp (°C): 100-145

Nozzle Type: Hardened Steel

Layer Height (mm): 0.15

Shrinkage Rate (%): 0.15

Continuous Use Temp (°C): 250

Impact Strength (kJ/m²): 14.5

 For Research or Industrial Raw Materials, Not For Personal Medical Use!