

## Ultra-High Modulus CF-PEEK

Catlog Number: CRSM-0020

### • Description

Premium PEEK composite with pitch-based carbon fiber for the highest possible stiffness and thermal conductivity in the 3D printing market.

### • Basic Information

Base Material: Polyetheretherketone

Reinforcement Type: Pitch-based Carbon Fiber

Reinforcement Volume (%): 0.25

Density (g/cm<sup>3</sup>): 1.45

Tensile Strength (MPa): 185

Tensile Modulus (MPa): 16500

Elongation at Break (%): 1.5

Flexural Strength (MPa): 270

Flexural Modulus (MPa): 15500

Heat Deflection Temp (0.45MPa): 320

Glass Transition Temp (Tg): 143

Melting Point (°C): 343

Thermal Conductivity (W/mK): 0.55

Flame Retardancy (UL94): V-0

Surface Resistivity (Ω): 10<sup>4</sup> - 10<sup>6</sup>

Water Absorption (%): 0.08

Printing Temp (°C): 410-450

Bed Temp (°C): 130-160

Chamber Temp (°C): 110-150

Nozzle Type: Hardened Steel

Layer Height (mm): 0.1-0.2

Shrinkage Rate (%): 0.1

Continuous Use Temp (°C): 260

Impact Strength (kJ/m<sup>2</sup>): 15

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