

## Carbon Fiber Reinforced PEEK-AE

Catlog Number: CRSM-0063

### • Description

Aerospace-grade PEEK composite with high carbon fiber loading for extreme specific strength and modulus in structural space research components.

### • Basic Information

Base Material: PEEK  
Reinforcement Type: Chopped Carbon Fiber  
Reinforcement Volume (%): 0.2  
Density (g/cm<sup>3</sup>): 1.38  
Tensile Strength (MPa): 155  
Tensile Modulus (MPa): 13500  
Elongation at Break (%): 2  
Flexural Strength (MPa): 230  
Flexural Modulus (MPa): 12200  
Heat Deflection Temp (0.45MPa): 310  
Glass Transition Temp (Tg): 143  
Melting Point (°C): 343  
Thermal Conductivity (W/mK): 0.45  
Flame Retardancy (UL94): V-0  
Surface Resistivity (Ω): 10<sup>6</sup> - 10<sup>8</sup>  
Water Absorption (%): 0.12  
Printing Temp (°C): 400-445  
Bed Temp (°C): 125-155  
Chamber Temp (°C): 110-150  
Nozzle Type: Hardened Steel  
Layer Height (mm): 0.1  
Shrinkage Rate (%): 0.2  
Continuous Use Temp (°C): 260  
Impact Strength (kJ/m<sup>2</sup>): 11

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