

## Alumina Reinforced Polymer

Catlog Number: CRSM-0023

### • Description

Technical feedstock for creating dense ceramic parts via FDM; features high heat resistance and excellent electrical insulation after sintering.

### • Basic Information

Base Material: Thermoplastic Binder

Reinforcement Type: Alumina Powder (Al<sub>2</sub>O<sub>3</sub>)

Reinforcement Volume (%): 0.45

Density (g/cm<sup>3</sup>): 2.85

Tensile Strength (MPa): 320

Tensile Modulus (MPa): 11500

Elongation at Break (%): 1

Flexural Strength (MPa): 330

Flexural Modulus (MPa): 10500

Heat Deflection Temp (0.45MPa): 350

Glass Transition Temp (T<sub>g</sub>): -

Melting Point (°C): 2050

Thermal Conductivity (W/mK): 28

Flame Retardancy (UL94): V-0

Surface Resistivity (Ω): 10<sup>16</sup>

Water Absorption (%): 0.05

Printing Temp (°C): 240-270

Bed Temp (°C): 80-100

Chamber Temp (°C): -

Fan Speed (%): 20

Nozzle Type: Hardened Steel

Layer Height (mm): 0.15

Shrinkage Rate (%): 15

Continuous Use Temp (°C): 1500

Impact Strength (kJ/m<sup>2</sup>): 5.5

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