OLA REINFORCED NYLON CARBON FIBER

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OLA Product Name: OLA Reinforced Nylon Carbon Fiber

Color: Black

Process: FDM

MATERIAL SUMMARY

Tolerance: ±300μm or ±0.3%

Lead Time: 4 days

Maximum Printing Size: 300mm × 220mm × 220mm

Notes:

EVALUATION

Benefits

① Reinforced with 25% carbon fiber
② Excellent mechanical strength, especially along the Z-axis
③ Superior heat resistance and dimensional stability

Limitations

① Features <Ø2mm may break or be incomplete
② Surfaces <45° may show roughness or deformation
③ Flat areas >150mm may warp
④ Supported surfaces may be rough
⑤ Complex internal geometries may trap support material

KEY FEATURES

OLA Reinforced Nylon Carbon Fiber is a high-performance 3D printing filament featuring a dual-layer coating structure. The outer shell is made of pure nylon resin with high interlayer adhesion, while the core contains short-cut carbon fiber-reinforced high-temperature nylon. This results in a material with outstanding strength, heat resistance, and superior Z-axis performance compared to conventional carbon fiber nylon.

MATERIAL PROPERTIES

Heat Deflection Temperature: 187.5°C
Tensile Modulus (X-Y): 8789.10±458.32MPa
Tensile Modulus (Z): 4213.96±87.46MPa
Tensile Strength (X-Y): 103.25±2.96MPa
Tensile Strength (Z): 51.51±2.01MPa
Elongation at Break (X-Y): 1.49±0.09%
Elongation at Break (Z): 1.55±0.12%
Flexural Modulus: 8568.60±172.79MPa
Flexural Strength: 170.09±4.88MPa
Notched Impact Strength: 6.57±0.38KJ/m²

APPLICATION SCENARIOS

- **Ideal for thin-walled components and parts requiring high mechanical performance. Suitable for direct production of functional parts, tools, and jigs/fixtures.**

POST-PROCESSING OPTIONS

Thread tapping