

A close-up photograph of a black spool of Rizium One filament. The spool has "riZE" printed on the top and "Rizium One" on the bottom. A white filament is visible on the spool.

Rizium™ One

3D Printing Filament

Engineering grade, amorphous polymer designed for high strength, superior layer adhesion, long-term stability, and clean operation.

- Best-in-class Z-strength
 - Zero VOC emissions
 - Low moisture absorption
 - High purity
 - Medical grade ingredients
- Compatible with Rizium™ family of material enhancers:
 - Rizum™ Marking Ink
 - Rizum™ Release Agent



Flexural Strength

max strain, 23°C

XY	72 MPa
XZ	75 MPa
ZX	66 MPa

XY	10.4K psi
XZ	10.8K psi
ZX	9.5K psi

Flexural Modulus

1724 MPa
1766 MPa
1535 MPa

250K psi
256K psi
222K psi



Tests performed with parts printed on Rize™ One printer using solid infill. Test method: ISO 178, method A



Volume Resistivity, Ω -cm

> 10^{16} (insulative)

Dielectric Constant

2.2

Dielectric Breakdown, KV/mm

70



Glass Transition, C

99°

Heat Deflection (HDT), C

86°

Flame Classification

UL94-HB @ 2.75mm



Specific Gravity

1.01

Moisture Absorption

< .01%

Chemically resistant to acids, alcohols, and ketones.



VOC Emissions

None

Health

Skin and food contact safe*

Venting Requirements

None

Residual Metals Content

< .02 ppm

*ingredients only



Packaging

50 in³ (820g) spool, individual carton

Shelf Life

One year

Storage Requirements

Store in carton until ready for use

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