

A large, circular spool of white 3D printing filament. The spool has a central hub and a wide, flat rim. The word "rize" is printed in white on the top surface of the rim, and "Rizium One" is printed in white on the bottom surface of the rim. The spool is set against a light gray background.

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:
 - RIZIUM™ Marking Ink
 - RIZIUM™ 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



Orientation: xz

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

Specifications are subject to change without notice. Data presented are actual measured values and not guaranteed specifications. They do not guarantee performance level under actual usage. Actual user results can vary based on part design, application, user, operating and testing conditions and more. Users are responsible for determining that Rize™ materials are lawful and technically suitable for their applications and for disposal or recycling methods according to applicable environmental laws and regulations. Rize Inc. makes no warranties of any kind, express or implied, including, but not limited to, the warranties of merchantability, fitness for a particular use or warranty against patent infringement.