

# Rizium™ One / ST

## 3D Printing Filament



RIZIUM ONE & RIZIUM ST 3D printing filament are UL 2904 Certified and USP Class VI Certified Materials. RIZIUM ONE & RIZIUM ST are engineering grade, amorphous polymers designed for high strength, superior layer adhesion, long-term stability, and clean operation.

- Best-in-class Z-strength
- Zero VOC emissions
- Low moisture absorption
- UL GREENGUARD 2904 Certified
- USP Class VI Certified Material

- 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** 10.4 Kpsi  
**XZ** 10.8 Kpsi  
**ZX** 9.5 Kpsi

### Flexural Modulus

1724 MPa  
1766 MPa  
1535 MPa

250 Kpsi  
256 Kpsi  
222 Kpsi



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



**Volume Resistivity,  $\Omega$  -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



**Specific Gravity** 1.01 g/cm<sup>3</sup>  
**Moisture Absorption** < .01%

Chemically resistant to acids, alcohols, and ketones.



**VOC Emissions** Passes UL GREENGUARD 2904  
**Health** USP Class VI Certified (ST tested with Cyan Ink only)  
**Venting Requirements** None  
**Residual Metals Content** < .02 ppm



**Packaging** 50 in<sup>3</sup> (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.