



Draft Grey V1 Resin Technical Data Sheet

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Fast, rigid and easy-to-use resin

Draft Grey resin is a photosensitive resin product that can achieve rapid printing and easy post-processing, providing an ideal choice for users who need to quickly print the prototype model. It can meet the needs of markets such as industry and education, and can be used to print initial models, rapid product design iterations, high throughput parts, 3D Print demonstration parts, medical teaching, anatomical models, teaching tool models, art sculpture and other art display parts, etc.

Benefits:

- Fast printing speed
- High printing success rate
- Low viscosity
- Smooth surface
- Easy to clean

Applications:

- Rapid prototypes validation
- High throughput parts
- Industrial design parts
- Art sculpture display pieces, etc

Physical Properties

Property	Testing Method	Typical Value	
		Metric	Imperial
Appearance	/	Liquid, Grey	
Liquid Density	ASTM D792	1.05g/cm ³	
Solid Density	ASTM D792	1.24g/cm ³	
Viscosity at 25 °C	ASTM D7867	95 cps@25°C	95 cps@77°F
Shore D Hardness	ASTM D2240	86D	

Mechanical Properties*

Property	Testing Method	Green		Post-Cured	
		Metric	Imperial	Metric	Imperial
Young's Modulus	ASTM D638	0.95 GPa	137.8 ksi	2.9 GPa	420.6 ksi
Tensile Strength	ASTM D638	27.7 MPa	4017.5 psi	56.5 MPa	8194.6 psi
Elongation at Break	ASTM D638	16.7 %	16.7 %	8.31 %	8.31 %
Flexural Modulus	ASTM D790	1.67 GPa	242.2 ksi	3.3 GPa	478.6 ksi
Flexural Strength	ASTM D790	61.2 MPa	8876.3 psi	98.1 MPa	14.2 ksi
Notched Izod	ASTM D256	18.0 J/m	4.0 ft-lbf/in	18.4 J/m	4.1 ft-lbf/in

***Note:**

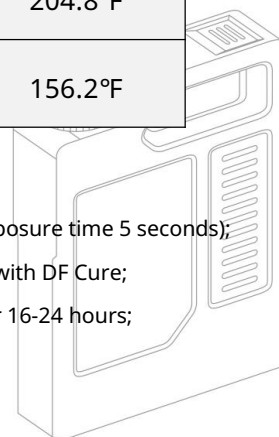
1. All test samples are printed on Raise3D DF2 printer (405nm wavelength, 2.3mW/cm², 200 µm layer thickness, exposure time 5 seconds);
2. All post-cured test samples are cured at room temperature for 10 minutes on the front and back of the sample with DF Cure;
3. All test samples are placed under laboratory environmental conditions of 20-25 °C / 40-60% relative humidity for 16-24 hours;
4. Test performance varies with part geometry, print location orientation, print settings, and temperature.

Thermal Properties*

Property	Testing Method	Green		Post-Cured	
		Metric	Imperial	Metric	Imperial
Heat Deflection Temp @0.45 MPa/66 psi	ASTM D648	49°C	120.2°F	96°C	204.8°F
Heat Deflection Temp @1.82 MPa/264 psi	ASTM D648	43°C	109.4°F	69°C	156.2°F

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Testing Geometries

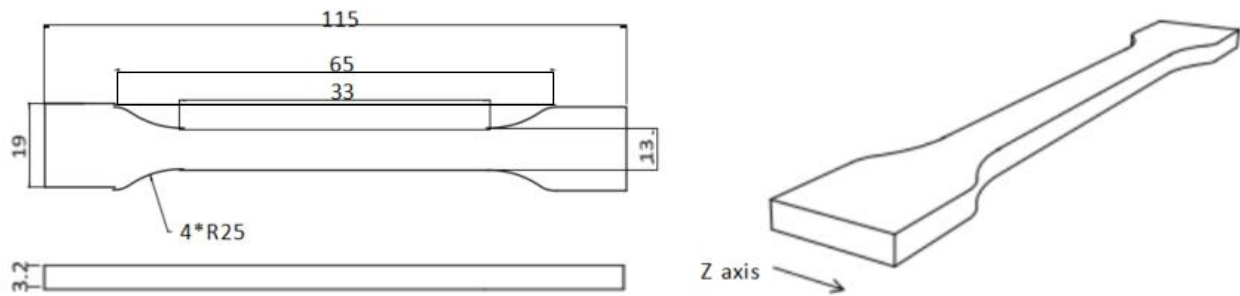


Fig 1. Tensile testing specimen

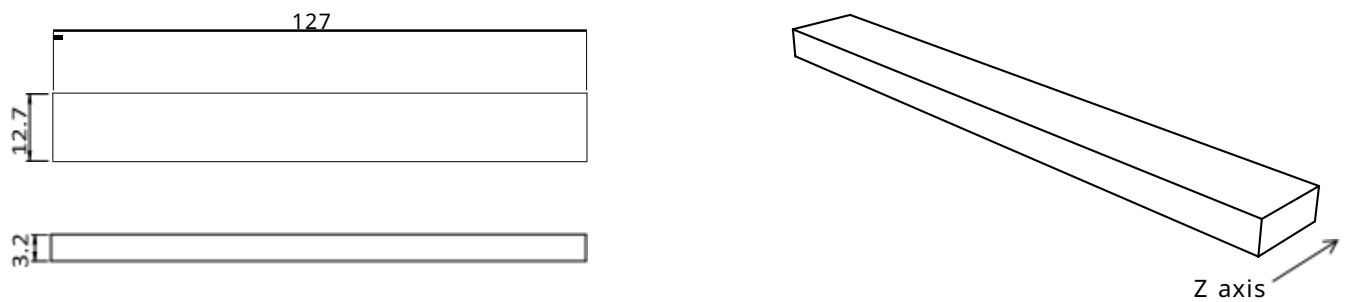


Fig 2. Flexural testing specimen

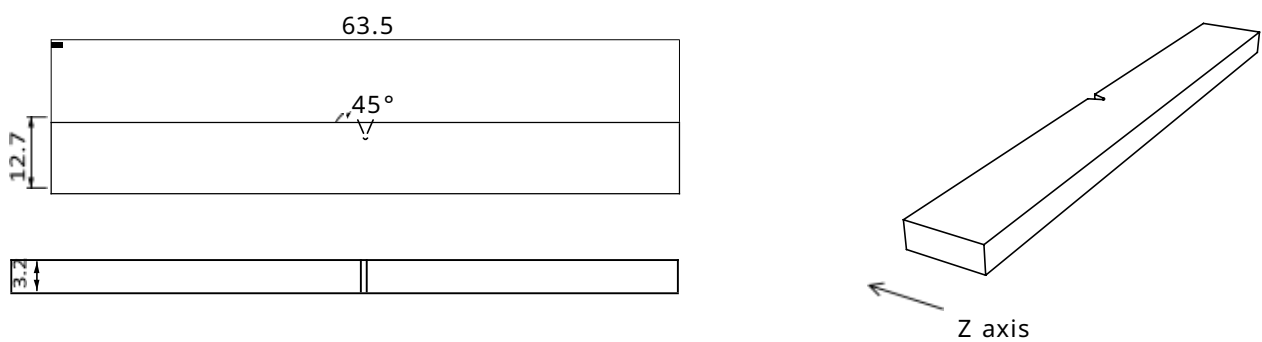
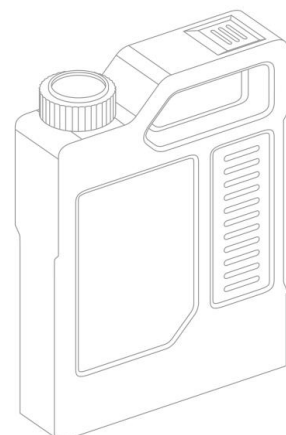


Fig 3. Impact testing specimen



Disclaimer

The typical values presented in this data sheet are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End-use performance of printed parts depends not only on materials, but also on part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

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