

## 3D Printing w/ Workday PLA™!

3D-Fuel Workday PLA Filament is stronger and more heat resistant than Standard PLA and even stronger than ABS. Workday PLA is produced from high heat grade PLA, which was developed specifically for the manufacturing of 3D printer filament. High heat grade resin exhibits improved heat-resistance and has faster crystallization rates. You can expect: Low odor, higher print detail/resolution, excellent first layer adhesion, improved adhesion between layers, and reduced warping, curling, and failed prints.

Colors listed in order as seen to the right: Industrial Gray, Midnight Black, Snow White, Ocean Blue, Fire Engine Red, Clearly Natural, Grass Green, Island Fuchsia, Daffodil Yellow, Electric Blue, and Tangerine Orange. All colors available in 1KG sizes. See [www.3dfuel.com](http://www.3dfuel.com) to see what's available in a 4KG, 5LB (2.3KG), and our 1/2 KG sizes. We also have 135g samples!



### Print Settings

Workday PLA™ prints well at 190°-230°C (varies by printer). Your bed may be 0°-60°C. Bed surface recommendations are (1) bare acrylic, (2) blue painters tape + hairspray, (3) glass + hairspray, (4) BuildTak or similar bed surface, or (5) PEI with heated bed @ 45°-60°C. Printing speed should be 30-60 mm/s. Set infill to at least 30%. Set layer height to .10mm. Include rafts and supports in your settings for curved prints. Print in an area with superb ventilation or a cooling fan that targets airflow directly on the print.

### Filament Information

**Quality:** All of our filament is manufactured in our own plants (Fargo, North Dakota and Merville, Ireland). We completely control the manufacturing process allowing us to ensure consistent quality for every spool.

**Diameter Tolerance:** Filament with a fluctuating diameter causes big problems. We use a multi-axis laser to control our ovality and diameter. Every spool has those real-time measurements *listed right on the box!*

**Packing Information:** Each spool of Workday PLA arrives on a durable plastic reel vacuum sealed with a desiccant packet to keep out moisture.

**Test Printing:** The 3D-Fuel test lab features multiple brands of 3D printers including MakerBot, LulzBot, FlashForge, and more. We print what we manufacture to ensure our filament provides the absolute best quality!

### Annealing (Heat Treating) Recommendation:

1. Preheat oven or toaster oven to 176°-266°F (80°-130°C).
2. Place object on room temperature baking sheet.
3. Place baking sheet in oven.
4. Wait 30-60 minutes. You may see a change to a milky, matte, or opaque color.
5. Turn oven off.
6. Wait for oven to cool before removing print.

This should achieve the maximum strength for your print by increasing crystallization while also increasing heat deflection temperature. Shrinking or warping may occur depending on object geometry.