

Technical Data Sheet

Standard PLA

General Information

3D-Fuel™ Standard PLA is a biodegradable thermoplastic made from high-starch materials. Genuine Natureworks Ingeo PLA resin is utilized to manufacture Standard PLA.

Standard PLA is a basic material. Useful for initial prototypes.

Printing Information

Printing with Standard PLA is an easy process thanks to its low processing temperature. A print temperature of 185 to 205 degrees Celsius is our recommended starting point. Standard PLA prints with little warping on a non-heated build surface. If your printer does have a heated bed, setting it to around 45 degrees Celsius may help with first layer adhesion when printing without a raft. Print speed should remain between 50 and 100 mm/s and should be varied based on part size. Clean the nozzle after every use.

Standard PLA has moderately high interlayer adhesion which makes for a print that will stay together but still allow a raft to be easily removed if needed

Storage

Like all of our filaments, Standard PLA filament comes in a vacuum-sealed resealable bag with a pack of desiccant. In order to prevent the filament from absorbing moisture from the air when the spool is not in use, place it back in the bag with a desiccant pack and seal it.

Values

Benefits of using Standard PLA include simple, low odor printing with easy raft and support removal.

Resin Typical Material Properties

| Property | Standard* | Standard PLA |
|--------------------------------|-----------|--------------|
| Maximum Tensile Strength, MPa | ASTM D638 | 41 |
| Tensile Strength at Yield, MPa | ASTM D638 | 37 |
| Tensile Modulus, GPa | ASTM D638 | 3.2 |
| Tensile Elongation, % | ASTM D638 | 1.8 |
| Notched Impact, J/m | ASTM D256 | 26 |

*All test specimen were 3D printed to more accurately represent expected usage