

Technical Data Sheet

Ingeo™ PLA

General Information

3D Fuel™ Ingeo™ PLA (also known as 3D-Fuel™ Premium PLA) is a biodegradable thermoplastic made from corn. While the base resin utilized for the production of Ingeo PLA, the same manufacturing process are utilized to create a premium grade PLA filament with tight specifications for consistency, ovality, and roundness.

Printing Information

Printing with Ingeo PLA is will be an easy process thanks to its low processing temperature. A print temperature of 185 to 205 degrees Celsius is our recommended starting point. Ingeo PLA prints with little warping on a non-heated build surface with a raft. If your printer does have a heated bed, setting it to around 40 degrees Celsius may help with first layer adhesion when printing without a raft. Print speed should remain between ___ and ___ mm/s and should be varied based on part size. Print speed should remain between 50 and 100 mm/s and should be varied based on part size. Clean the nozzle after every use.

Ingeo™ 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 need be.

Storage

Like all of our filaments, Ingeo™ filament comes in a vacuum-sealed resealable bag with a pack of silica gel. 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 silica gel pack and seal it.

Values

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

Resin Typical Material Properties

| Property | Standard* | Ingeo™ |
|--------------------------------|-----------|--------|
| 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