

PLA TDS

Poly lactide

Product Description

AzureFilm PLA (Polylactide) is a filament with good mechanical properties and excellent printing quality. This filament is suitable for parts that require high strength and stiffness and easy processability (no warping, no irritating smell).

Properties

| Property of 3D printed specimens | Test condition | PLA |
|--|----------------|------|
| Tensile modulus [MPa] | 1 mm/min | 3,3 |
| Tensile strength [MPa] | 50 mm/min | 59,0 |
| Strain at break (Tensile) [%] | 50 mm/min | 4,2 |
| Strain at tensile strength [%] | 50 mm/min | 3,8 |
| Flexural modulus [GPa] | 2 mm/min | 2,8 |
| Flexural strength [MPa] | 2 mm/min | 73,6 |
| Flexural strain at flexural strength [%] | 2 mm/min | 3,3 |
| Strain at break (Flexural) [%] | 2 mm/min | 3,3 |
| Charpy unnotched [kJ/m ²] | 23 °C | 10,4 |

Test specimens print settings

| | | |
|------------------------------|----------------------|----------------------------|
| 3D printer: Creality Ender 3 | Infill: 20 % | Nozzle temperature: 200 °C |
| Slicer: Cura | Shells: 2 | Bed temperature: 55 °C |
| Nozzle: 0,4 mm | Layer height: 0,2 mm | Print speed: 50 mm/s |

Printing Recommendations

Nozzle temperature: 200 – 230°C
 Heated bed: Not required (recommended 50-60 °C)
 Print speed: 50 – 100 mm/s
 Build platform: Blue tape, Kapton tape, Glass bed