

azurefilm

PLA Original

Covers PLA Pearl, Neon, Pastel & Skin

TECHNICAL DATA SHEET · REV 06.26 · AF-TDS-PLA

Ø 1.75 ± 0.02 mm

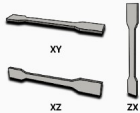
DESCRIPTION

AzureFilm PLA (polylactide) is a filament with good mechanical properties and excellent print quality. It suits parts that need high strength and stiffness with easy processability —no warping and no irritating smell.

KEY BENEFITS

- Easy to print
- High stiffness
- High strength
- No warping
- No odor
- Great print quality

MECHANICAL PROPERTIES



TEST METHOD

Each property below lists its single measured value alongside the test condition used. Measured on 3D-printed specimens.

PROPERTY	TEST CONDITION	VALUE
Tensile modulus	1 mm/min	3.3 GPa
Tensile strength	50 mm/min	59.0 MPa
Strain at break (tensile)	50 mm/min	4.2 %
Strain at tensile strength	50 mm/min	3.8 %
Flexural modulus	2 mm/min	2.8 GPa
Flexural strength	2 mm/min	73.6 MPa
Flexural strain at strength	2 mm/min	3.3 %
Strain at break (flexural)	2 mm/min	3.3 %
Impact strength (Charpy, unnotched)	23 °C	10.4 kJ/m ²
TEST SPECIMENS Printer Creality Ender 3 Nozzle 0.4 mm Infill 20% Shells 2 Layer height 0.2 mm Nozzle temp. 200 °C Bed temp. 55 °C Print speed 50 mm/s		

PRINTING RECOMMENDATIONS

Printing temp.	220 °C	Bed temp.	50 °C
Chamber temp.	35 °C	Recommended speed	≤300 mm/s
Max printing speed	≤890 mm/s	Retraction	0.8 mm

HANDLING, STORAGE & THERMAL

Max flow rate	66 mm ³ /s	Max-flow test printer	FLsun T1 Pro
Heat deflection temp.	55 °C	Vicat softening temp.	60 °C
Glass transition temp.	60 °C	Drying temp.	45 °C
Drying time	4 h	Enclosed printer	Not recommended
Multi-material compatibility	Compatible		

TIPS & TRICKS

- **Dry thoroughly before printing**
Dry at 45 °C for 4 h, then store sealed or print from dry storage.
- **Use practical first-layer speed**
Start first layers around 60 mm/s, then increase speed after adhesion is stable.
- **Keep PLA out of hot chambers**
Use an open printer or avoid extra chamber heat; heated chambers can cause heat creep.
- **Use normal room ventilation**
Ventilate long prints and print rooms even with low-odor PLA.
- **Clean build surface before fast prints**
Finger oils can lift corners once speeds rise; clean PEI/glass before important parts.
- **Recommended print speed**
Use ≤ 300 mm/s for normal prints; Max Printing Speed is the tested ceiling.

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