

PLA Strongman™ TDS

High Impact Polylactide

Product Description

AzureFilm HI-PLA (High Impact Polylactide) is a high performance filament specially designed for applications that require high impact toughness. This filament combines easy processability of PLA filament (no warping, no irritating smell) and impact toughness of ABS filament.

Properties

Property of 3D printed specimens	Test condition	HI-PLA
Tensile modulus [MPa]	1 mm/min	2,9
Tensile strength [MPa]	50 mm/min	41,2
Strain at break (Tensile) [%]	50 mm/min	8,9
Strain at tensile strength [%]	50 mm/min	3,3
Flexural modulus [GPa]	2 mm/min	2,2
Flexural strength [MPa]	2 mm/min	52,3
Flexural strain at flexural strength [%]	2 mm/min	3,6
Strain at break (Flexural) [%]	2 mm/min	No break
Charpy unnotched [kJ/m ²]	23 °C	21,8

Test specimens print settings

3D printer: AzureFilm	Infill: 20 %	Nozzle temperature: 210 °C
Slicer: Cura	Shells: 2	Bed temperature: 55 °C
Nozzle: 0,4 mm	Layer height: 0,3 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, Wood bed