

alzament

Alzament Filament

Technical Data Sheet V1.0

PLA+

- **Basic Info**

Alzament PLA+ is an environmentally friendly material modified from PLA material, with better toughness and safer use.

Easy to print, improved toughness and interlayer bonding, very suitable for functional parts printing.

- **Specifications**

Subjects	Data
Diameter	1.75 mm
Net Filament Weight	1 kg
Filament Length	330m
Tolerance	±0.02mm

- **Recommended Printing Settings**

Subjects	Data
Nozzle Temperature	210 – 230 (°C)
Bed Type	Cool Plate, High Temperature Plate or Textured PEI Plate
Build surface material	BuildTak® , Glass, Blue Tape
Build Surface Treatment	Glue
Build Plate Temperature	45 - 60 (°C)
Cooling fan	Turn ON
Printing speed	50-100 (mm/s)
Retraction speed	20 - 40 mm/s
Environmental temperature	Room temperature
Max Overhang Angle	55 °
Support Material	PLA+

- **Properties**

Alzament has tested the differing aspects in the performance of PLA+ material, including physical and chemical properties. Typical values are listed as followed:

Physical Properties		
Subjects	Testing Methods	Data
Density	GB/T 1033	1.23 g/cm ³
Melt Index	GB/T 3682	190°C/2.16kg
Glass Transition Temperature	DSC,10°C/min	60°C
Crystallization Temperature	DSC,10°C/min	N / A
Saturated Water Absorption Rate	25 °C, 55% RH	0.43%

Mechanical Properties		
Subjects	Testing Methods	Data
Tensile Strength	GB/T 1040	63 Mpa
Breaking Elongation Rate	GB/T 1040	20%
Bending Modulus	GB/T 9341	1973 Mpa
Bending Strength	GB/T 9341	75 Mpa
Impact Strength	GB/T 1843	9 kJ/m ²
Heat distortion Temperature	GB/T 1634	53°C

Other Physical and Chemical Properties	
Subjects	Data
Odor	Odorless
Composition	Polyvinyl alcohol
Skin Hazards	Not available
Chemical Stability	Stable under normal storage and handling conditions
Solubility	Soluble in water
Resistance to Acid	Not resistant
Resistance to Alkali	Not resistant
Resistance to Organic Solvent	Not resistant to some organic solvents
Resistance to Oil and Grease	Resistant to most kinds of oil and grease
Flammability	Flammable
Combustion Products	Water, carbon oxides, etc
Odor of Combustion Products	Light pungent odor

• Disclaimer

The performance values are tested by standard samples at Alzament, and the values are for design reference and comparison only. Actual 3D printing model performance is related to many other factors, including printers, printing conditions, printing models, printing parameters, etc.

In the process of using Alzament 3D printing filaments, users are responsible for the legality, safety, and performance indicators of printing. Alzament is not responsible for the use of materials and scenarios and is not responsible for any damage that occurs in the process of using our filaments.

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