alzament

Alzament Filament

Technical Data Sheet V1.0

PETG

• Basic Info

Alzament PETG has good toughness, high hardness , impact strength is more than 30 times that of ordinary PL A , and elongation at break is more than 50 times that of ordinary PLA.

• Specifications

Subjects	Data
Diameter	1.75 mm
Net Filament Weight	1 kg
Filament Length	330m
Tolerance	±0.03mm

• Recommended Printing Settings

Subjects	Data
Nozzle temperature	230 – 240 (℃)
Build surface material	BuildTak®,Glass
Build surface treatment	Glue
Build plate temperature	70 - 80 (˚C)
Cooling fan	OFF - 20%
Printing speed	30-50 (mm/s)
Raft separation distance	0.14 (mm)
Retraction distance	1 (mm)
Retraction speed	20 mm/s
Environmental temperature	Room temperature
Threshold Overhang Angle	60 °

• Properties

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

Physical Properties		
Subjects	**Testing Methods**	**Data**
Density	ISO 1183,GB/T1033	1.25 g/cm3 at 23°C
Melt Index	240 °C, 2.16 kg	10.8 g/10 min
Light transmission	GB/T 2410	90%
Flame retardancy	N/A	N / A

Mechanical Properties		
Subjects	**Testing Methods**	**Data**
Young's modulus (X-Y)	ISO 527, GB/T 1040	2116.78 ± 68.1 MPa
Young's modulus (Z)		1898.7 ± 98.5 MPa
Tensile strength (X-Y)	ISO 527, GB/T 1040	50.8 ± 0.9 MPa
Tensile strength (Z)		42.8 ± 2.8 MPa
Elongation at break (X-Y)	ISO 527, GB/T 1040	8.4 ± 1.7 %
Elongation at break (Z)		3.3 ± 0.2 %
Bending modulus (X-Y)	ISO 178, GB/T 9341	1898.5 ± 35.5 MPa
Bending modulus (Z)		N/A
Bending strength (X-Y)	ISO 178, GB/T 9341	69.6 ± 0.8 MPa
Bending strength (Z)		N/A
Charpy impact strength (X-Y)	ISO 179, GB/T 1043	2.6 ± 0.2 kJ/m2
Charpy impact strength (Z)		N/A

• Specimen Test

Specimen Printing Conditions	
Subjects	**Data**
Nozzle Temperature	240 °C
Bed Temperature	80 °C
Infill Density	100%

• 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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