KINGROON

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PLA Glow

Basic info

KINGROON PLA Glow — Create Stunning Glow-in-the-Dark Prints

KINGROON PLA Glow is enhanced with a special luminous powder additive, allowing your prints to emit a captivating glow in the dark.
While offering this unique visual effect, the material still maintains all the advantages of standard PLA—easy printing, high-quality output, and reliable mechanical performance.

This glow-in-the-dark filament is the perfect choice for crafting luminous nameplates, logos, jewelry, decorative models, and any creation that requires an eye-catching glowing effect.

Specifications

Subjects	Data
Diameter	1.75mm
Net Filaments Weight	1kg
Spool Material	PC + ABS (Temperature resistance 90 °C)
Spool Size	Diameter: 200 mm; Height: 67 mm

Recommended Printing Settings

Subjects	Data
Drying Settings before Printing	Blast Drying Oven: 55 °C, 8 h
Printing and Storage Humidity	< 20% RH (Sealed, with desiccant)
Nozzle Size	0.4, 0.6, 0.8 mm
Nozzle Temperature	190 - 230 °C
Bed Type	Cool Plate, High Temperature Plate or Textured PEI Plate
Bed Surface Preparation	Glue
Bed Temperature	35 - 45 °C
Cooling Fan	Turn on
Printing Speed	< 250 mm/s
Retraction Length	0.6 - 1.0 mm
Retraction Speed	20 - 40 mm/s
Chamber Temperature	25 - 45 °C
Max Overhang Angle	55°
Max Bridging Length	30 mm
Support Material	Support for PLA

Properties

![KINGROON logo]

KINGROON PLA Glow Material Performance Testing

KINGROON has conducted comprehensive testing on the performance of PLA Glow across multiple dimensions, including its physical, mechanical, and chemical properties.

Physical Properties		
Subjects	Testing Methods	Data
Density	ISO 1183	1.26 g/cm³
Melt Index	210 °C, 2.16 kg	23.3± 2.4 g/10 min
Melting Temperature	DSC, 10 °C/min	155 °C
Glass Transition Temperature	DSC, 10 °C/min	55 °C
Crystallization Temperature	DSC, 10 °C/min	N/A
Vicar Softening Temperature	ISO 306, GB/T 1633	56 °C
Heat Deflection Temperature	ISO 75 1.8 Mpa	52 °C
Heat Deflection Temperature	ISO 75 0.45 Mpa	55 °C
Saturated Water Absorption Rate	25 °C, 55% RH	0.0046

Mechanical Properties		
Subjects	Testing Methods	Data
Young's Modulus(X-Y)	ISO 527, GB/T 1040	2030 ± 210 MPa
Young's Modulus (Z)	ISO 527, GB/T 1040	1750 ± 180 MPa
Tensile Strength (X-Y)	ISO 527, GB/T 1040	32 ± 3 MPa
Tensile Strength (Z)	ISO 527, GB/T 1040	26 ± 3 MPa
Breaking Elongation Rate (X-Y)	ISO 527, GB/T 1040	8.6 ± 1.2 %
Breaking Elongation Rate (Z)	ISO 527, GB/T 1040	6.5 ± 0.8 %
Bending Modulus (X-Y)	ISO 178, GB/T 9341	2640 ± 130 MPa
Bending Modulus (Z)	ISO 178, GB/T 9341	2230 ± 110 MPa
Bending Strength (X-Y)	ISO 178, GB/T 9341	76 ± 4 MPa
Bending Strength (Z)	ISO 178, GB/T 9341	55 ± 3 MPa
Impact Strength (X-Y)	ISO 179, GB/T 1043	27.3 ± 2.2 kJ/m²； 8.8 ± 1.7 kJ/m² (notched)
Impact Strength (Z)	ISO 179, GB/T 1043	19.8 ± 1.8 kJ/m²

Other Physical and Chemical Properties

Subjects	Data
Odor	Odorless
Composition	Polylactic acid
Skin Hazards	No hazard
Chemical Stability	Stable under normalstorage and handling conditions
Solubility	Insoluble in water

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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
Odor of Combustion Products	Odorless

Specimen Test

Specimen Printing Conditions	
Subjects	**Data**
Nozzle Temperature	220 °C
Bed Temperature	35 °C
Printing Speed	200 mm/s
Infill Density	100%

The performance values are tested by standard samples at KINGROON, 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 KINGROON 3D printing filaments, users are responsible for the legality, safety, and performance indicators of printing. KINGROON 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.