

TECHNICAL DATA SHEET

Prima Creator Select PLA Glow in the Dark

Product code:	Revision Number:	Revision date:	TDS No.:
Select PLA GitD	01	011/01/2022	KT004

BRIEF INTRODUCTION

Filament suitable for all commercially available leading brands FDM/FFF Printers.

Characteristic:

Environmentally friendly|Excellent printing effect|good interlayer bond|no buckling deformation|Color varies with temperature

IDENTIFICATION OF THE MATERIAL

Trade name	Select PLA Glow in the Dark
Chemical name	Polylactic Acid
Use	3D Printing
Origin	Prima Creator

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	190~220℃
Bed temperature	30~60℃
Bed modification	Tape or glue below 60℃
Active cooling fan	ON, 50%~100%
Layer height	0.2mm
Shell thickness	≥0.8mm
Print speed	40-80mm/s

Settings are based on a 0.4mm nozzle.

MATERIAL PROPERTIES

		Test Method
Melt temperature	~160℃	ISO 11357
Glass transition temperature	~60℃	ISO 11357
Melt flow rate (MFR)¹	7~12g/10min	ISO 1133
Heat deflection temperature(HDT)²	55℃	ISO 75
Vicat softening temperature(VST)³	58℃	ISO 306
density	1.23g/cm ³	ISO 1183
Odor	Odorless	/
Solubility	Insoluble in water	/

1.test conditions: T= 190℃; m= 2.16kg.

2. test conditions: 0.45MPa; 120°C/h.

3. test conditions: 10N; 120°C/h.

MECHANICAL PROPERTIES|TENSILE TEST

Test Method ISO 527

All test specimens were printed using an FlashForge Guider 2s under the following conditions:

Printing temperature: 210°C

Heated bed temperature: 60°C

Print speed: 50mm/s

Shell thickness: 1.2mm

Infill under 45°



Printed horizontal X,Y-axis

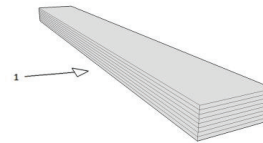
Infill	100%
Tensile strength (Mpa)	40~45
Elongation at break (%)	6~10
E modulus (Mpa)	4200~4500

MECHANICAL PROPERTIES|IMPACT TEST

Test Method ISO 179

The same conditions as tensile test.

1→impact direction



Charpy(ep)

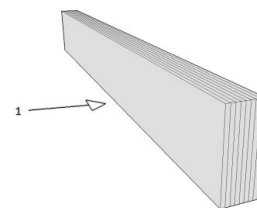
Infill	100%
Impact strength (KJ/m ²)	18~22
Notch impact strength ¹ (KJ/m ²)	2~4

MECHANICAL PROPERTIES |FLEXURAL TEST

Test Method ISO 178

The same conditions as tensile test.

1→bending direction



Normal

Infill	100%
Maximum force (Mpa)	85~95
Flexural modulus (Mpa)	3000~3500

1. notch type: type A

FILAMENT SPECIFICATION		Test Method
Diameter 1.75mm	1.75±0.03mm	EX1125
Diameter 2.85mm	2.85±0.03mm	EX1125
Diameter 3.00mm	3.00±0.03mm	EX1125
Max roundness deviation (1.75)	0.03mm	EX1125
Max roundness deviation (2.85)	0.03mm	EX1125
Max roundness deviation (3.00)	0.03mm	EX1125
Net weight on reel	1kg	EX1125