

TECHNICAL DATA SHEET

KEXCELLED PLA K6CFLite

Product code:	Revision Number:	Revision date:	TDS No.:
PLA K6CFLite	01	06/01/2023	KT065

Characteristic:

Carbon fiber texture|matte surface|good strength.

IDENTIFICATION OF THE MATERIAL

Trade name	PLA K6CFLite
Chemical name	Polylactic Acid
Use	3D Printing
Origin	KEXCELLED

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	210~230℃
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	30-60mm/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	4~6g/10min	ISO 1133
Heat deflection temperature(HDT) ²	65℃	ISO 75
Vicat softening temperature(VST) ³	60℃	ISO 306
Density	1.27~1.29g/cm ³	ISO 1183
Odor	Odorless	/
Solubility	Insoluble in water	/

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

2. test conditions:0.45MPa;120℃/h.

3. test conditions:10N; 120℃/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: 220°C

Heated bed temperature: 60°C

Print speed: 50mm/s

Shell thickness: 1.2mm

Infill under 45°



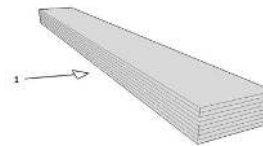
Printed horizontal X,Y-axis

Infill	100%
Tensile strength (Mpa)	38~42
Elongation at break (%)	8~12
E modulus (Mpa)	5600~6000

MECHANICAL PROPERTIES|IMPACT TEST
Test Method ISO 179

The same conditions as tensile test.

1→impact direction

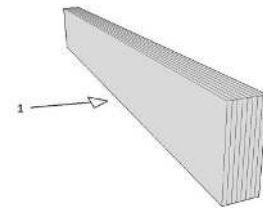


Infill	100%
Impact strength (KJ/m ²)	17~21
Notch impact strength ¹ (KJ/m ²)	4~6

MECHANICAL PROPERTIES |FLEXURAL TEST
Test Method ISO 178

The same conditions as tensile test.

1→bending direction



Infill	100%
Maximum force (Mpa)	67~77
Flexural modulus (Mpa)	2800~3300

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
Max roundness deviation (1.75)	0.03mm	EX1125
Max roundness deviation (2.85)	0.03mm	EX1125
Net weight on reel	1kg	EX1125