

TECHNICAL DATA SHEET

KEXCELLED THE K5™ PETG M

Product code:	Revision Number:	Revision date:	TDS No.:
THE K5™ PETG M	02	16/07/2025	KT107

Characteristic:

Matte surface | High strength | High rigidity.

IDENTIFICATION OF THE MATERIAL

Trade name	THE K5™ PETG M
Chemical name	Poly(ethylene terephthalate-co-1,4-cyclohexylenedimethylene terephthalate)
Use	3D Printing
Origin	KEXCELLED

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	230~260℃
Bed temperature	70~80℃
Bed modification	PEI frosted board
Active cooling fan	0~50%
Layer height	0.2mm
Shell thickness	≥0.8mm
Print speed	≤200mm/s

Settings are based on a 0.4mm nozzle.

MATERIAL PROPERTIES

		Test Method
Glass transition temperature	~75℃	ISO 11357
Melt flow rate (MFR) ¹	10~20g/10min	ISO 1133
Heat deflection temperature(HDT) ²	74℃	ISO 75
Vicat softening temperature(VST) ³	80℃	ISO 306
density	1.4~1.44g/cm ³	ISO 1183
Odor	Low odor	/
Solubility	Insoluble in water	/

1. test conditions: T= 230℃; 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 a BambuLab X1C under the following conditions:

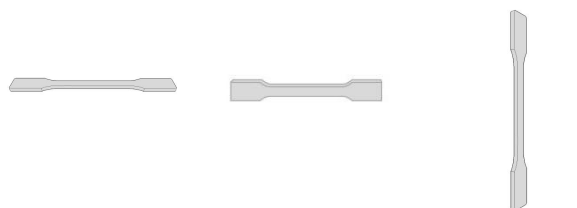
Printing temperature: 255°C

Heated bed temperature: 70°C

Print speed: 162.5mm/s

Shell thickness: 1.2mm

Infill under 45°

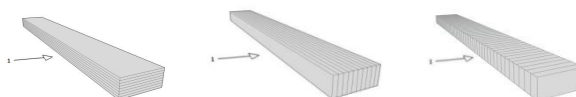


	Printed horizontal X,Y-axis	Printed horizontal X,Z-axis	Printed horizontal Z,X-axis ^{1,2}
Infill	100%	100%	100%
Tensile strength (Mpa)	37~43	37~44	14~18
Elongation at break (%)	5~9	5~9	1~4
E modulus (Mpa)	2100~2600	2100~2600	1400~1500

MECHANICAL PROPERTIES|IMPACT TEST
Test Method ISO 179

The same conditions as tensile test.

1→impact direction

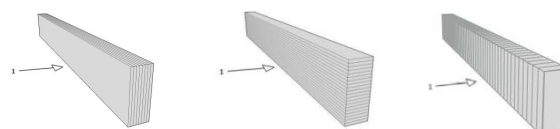


Infill	100%	100%	100%
Impact strength (KJ/m ²)	24~41	24~36	3~7
Notch impact strength ³ (KJ/m ²)	2~5	2~5	1~3

MECHANICAL PROPERTIES |FLEXURAL TEST
Test Method ISO 178

The same conditions as tensile test.

1→bending direction



Infill	100%	100%	100%
Maximum force (Mpa)	56~71	56~73	23~29
Flexural modulus (Mpa)	2100~2700	2300~2900	1800~2000

1. Z,X-axis test data are for reference only

2. the stress range of the Z,X-axis modulus: 10~13MPa

3. notch type: type A

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