

TECHNICAL DATA SHEET

KEXCELLED PETG K5

Product code:	Revision Number:	Revision date:	TDS No.:
PETG K5	03	14/01/2022	KT04.20.2101

BRIEF INTRODUCTION

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

Characteristic:

environmentally friendly|excellent effect applied to 3D printing|good interlayer bond|no buckling deformation| excellent toughness.

IDENTIFICATION OF THE MATERIAL

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

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	225~245°C
Bed temperature	70~80°C
Bed modification	NO
Active cooling fan	0~50%
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	~200°C	ISO 11357
Glass transition temperature	~70°C	ISO 11357
Melt flow rate (MFR) ¹	8~12g/10min	/
Heat deflection temperature(HDT)²	70°C	ISO 75
Vicat softening temperature(VST)³	80°C	ISO 306
density	1.27g/cm ³	ISO 1183
Odor	Odorless	/
Solubility	Insoluble in water	/

1.test conditions: T= 230°C; 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: 225°C

Heated bed temperature: 75°C

Print speed: 50mm/s

Shell thickness: 1.2mm

Infill under 45°



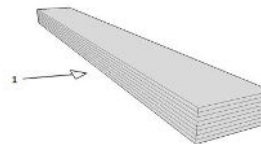
Printed horizontal X,Y-axis

Infill	100%
Tensile strength (Mpa)	40~45
Elongation at break (%)	8~10
Emodulus (Mpa)	3200~3600

MECHANICAL PROPERTIES|IMPACT TEST
Test Method ISO 179

The same conditions as tensile test.

1→impact direction

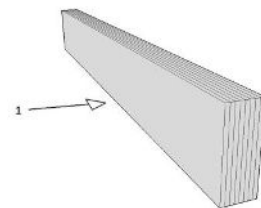


Infill	100%
Impact strength (KJ/m ²)	60~90
Notch impact strength ¹ (KJ/m ²)	4~6

MECHANICAL PROPERTIES |FLEXURAL TEST
Test Method ISO 178

The same conditions as tensile test.

1→bending direction



Infill	100%
Maximum force (Mpa)	65~70
Flexural modulus (Mpa)	1700~1900

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