

TECHNICAL DATA SHEET

KEXCELLED PETG K6

Product code:	Revision Number:	Revision date:	TDS No.:
PETG K6	01	6/09/2019	04.012.0156

Characteristic:

High toughness | high heat resistance | environmental protection

IDENTIFICATION OF THE MATERIAL

Trade name	PETG K6
Chemical name	Poly (ethylene terephthalate-co-1,4-cyclohexylenedimethylene terephthalate)
Use	3D Printing
Origin	KEXCELLED

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	260 ± 10 °C
Bed temperature	70~90 °C
Bed modification	OFF
Active cooling fan	ON
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	~220 °C	ISO 11357
Melt flow rate (MFR) ¹	8~12 g/10min	ISO 1133
Heat deflection temperature(HDT)²	95 °C	ISO 75
Vicat softening temperature(VST)³	105 °C	ISO 306
density	1.27 g/cm ³	ISO 1183
Odor	Odorless	/
Solubility	Insoluble in water	/

1. test conditions: T= 240 °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 Mankati E180, under the following conditions: Printing temperature: 270°C

Heated bed temperature: 80°C
Print speed: 30mm/s
Shell thickness: 0.8mm

Infill under 45°

Infill 100%

Tensile strength (Mpa) 40~47

Elongation at break (%) 2~4


MECHANICAL PROPERTIES|IMPACT TEST
Test Method ISO 179

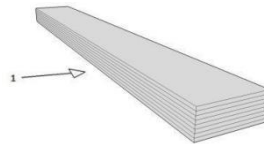
The same conditions as tensile test.

1→impact direction

Infill 100%

Impact strength (KJ/m²) 40~50

Notch impact strength¹ (KJ/m²) 3~5


MECHANICAL PROPERTIES |FLEXURAL TEST
Test Method ISO 178

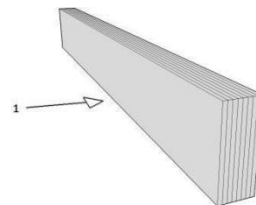
The same conditions as tensile test.

1→bending direction

Infill 100%

Maximum force (Mpa) 65~80

Flexural modulus (Mpa) 1800~2200



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