

TECHNICAL DATA SHEET

KEXCELLED THE K8™ TPU 85A

Product code:	Revision Number:	Revision date:	TDS No.:
THE K8™ TPU 85A	06	27/02/2025	KT031

Characteristic:

UV stabilized|Oil and grease resistance|high elasticity|low hardness

IDENTIFICATION OF THE MATERIAL

Trade name	THE K8™ TPU 85A
Chemical name	Thermoplastic polyurethanes
Use	3D Printing
Origin	KEXCELLED

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	230~250℃
Bed temperature	30~50℃
Bed modification	PEI frosted board
Active cooling fan	ON,50%~100%
Layer height	0.2mm
Shell thickness	≥0.8mm
Print speed	30mm/s

Settings are based on a 0.4mm nozzle.

MATERIAL PROPERTIES		Test Method
Melt flow rate (MFR) ¹	15~25g/10min	ISO 1133
Heat deflection temperature(HDT) ²	/	ISO 75
Vicat softening temperature(VST) ³	/	ISO 306
density	1.17~1.19g/cm ³	ISO 1183
hardness	80A	GB/T 531.1
resilience	53%	GB/T 1681-2009
Odor	Odorless	/
Solubility	Insoluble in water	/

1.test conditions: T=210℃; m= 2.16kg.

2. test conditions:0.45MPa;130℃/h.

MECHANICAL PROPERTIES|TENSILE TEST
Test Method GB/T 528

All test specimens were printed using a BambuLab X1C under the following conditions:

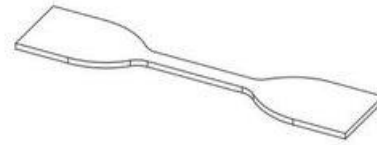
Printing temperature: 230°C

Heated bed temperature: 30°C

Print speed: 35mm/s

Shell thickness: 1.2mm

Infill under 45°



Printed horizontal X,Y-axis

Infill	100%
Tensile strength (Mpa)	>24
Elongation at break (%)	>1400

MECHANICAL PROPERTIES|TEAR TEST
Test Method ASTM D 624

The same conditions as tensile test.



Infill	100%
Tear strength (Mpa)	99~103

FILAMENT SPECIFICATION		Test Method
Diameter 1.75mm	1.75±0.05mm	EX1125
Diameter 2.85mm	2.85±0.05mm	EX1125
Max roundness deviation (1.75)	0.05mm	EX1125
Max roundness deviation (2.85)	0.05mm	EX1125
Net weight on reel	1kg	EX1125