TECHNICAL DATA SHEET

KEXCELLED THE K8™ TPU AIR

Product code:	Revision Number：	Revision date:	TDS No.:
THE K8™ TPU AIR	01	28/05/2026	KT114

Characteristic：

Light weight|Adjustable hardness|Fabric texture|Functional area printing

IDENTFICATION OF THE MATERIAL	
Trade name	THE K8™ TPU AIR
Chemical name	Thermoplastic polyurethanes
Use	3D Printing
Origin	KEXCELLED

GUIDELINE FOR PRINT SETTINGS	
Nozzle temperature	200~250℃
Bed temperature	30~50℃
Bed modification	Golden PEI board
Active cooling fan	ON,50%~100%
Layer height	0.2mm
Shell thickness	≥0.8mm
Print speed	100mm/s(Non-foaming) 45mm/s(200% foaming)

Settings are based on a 0.4mm nozzle.

MATERIAL PROPERTIES		Test Method
Melt flow rate (MFR) [1]	8~20g/10min	ISO 1133
Heat deflection temperature(HDT)[2]	/	ISO 75
Vicat softening temperature(VST)[3]	/	ISO 306
density	1.14g/cm^3(Non-foaming) 0.57g/cm^3(200% foaming)	ISO 1183
hardness	90A(Non-foaming) 69A(200% foaming)	GB/T 531.1
resilience	29%(Non-foaming) 23.5%(200% foaming)	GB/T 1681-2009
Odor	Odorless(Non-foaming) Slight odor(Foaming)	/
Solubility	Insoluble in water	/

1.test conditions: T=190℃; m= 1.2kg.

2. test conditions:0.45MPa;130℃/h.

MECHANICAL PROPERTIES|TENSILE TEST		**Test Method GB/T 528**
All test specimens were printed using a BambuLab P1S under the following conditions： Printing temperature: 205℃and 240℃ Heated bed temperature：35℃ Print speed：100mm/s and 45mm/s Shell thickness：1.2mm Infill under 45°		
	Printed horizontal X,Y-axis	
Infill	100%	
Printing temperature（℃）	205	240
Tensile strength（Mpa）	14.8	6.28
Elongation at break（%）	368.7	383.9

MECHANICAL PROPERTIES|TEAR TEST		**Test Method ASTMD 624**
The same conditions as tensile test.		
Infill	100%	
	205	240
Tear strength（Mpa）	88~91	40~43

FILAMENT SPECIFICATION		Test Method
Diameter 1.75mm	1.75±0.05mm	EX1125
Max roundness deviation（1.75）	0.05mm	EX1125
Net weight on reel	1kg	EX1125
Net weight on reel	3kg	EX1125