

TECHNICAL DATA SHEET

KEXCELLED HIPS K5

Product code:	Revision Number:	Revision date:	TDS No.:
HIPS K5	01	02/12/2022	KT018

Characteristic:

Supports ABS ASA PC and PA|backing material|HDT greater than 80°C

IDENTIFICATION OF THE MATERIAL

Trade name	HIPS K5
Chemical name	Olefin Block Copolymers
Use	3D Printing
Origin	KEXCELLED

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	230~250°C
Bed temperature	80~100°C
Bed modification	Tape or glue
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	~240°C	ISO 11357
Melt flow rate (MFR)¹	5~7g/10min	ISO 1133
Heat deflection temperature(HDT)²	97°C	ISO 75
Vicat softening temperature(VST)³	103°C	ISO 306
density	1.04g/cm ³	ISO 1183
Odor	Low odor	/
Solubility	Insoluble in water	/

1. test conditions: T= 200°C; m= 5kg.

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: 250°C

Heated bed temperature: 100°C

Print speed: 50mm/s

Shell thickness: 1.2mm

Infill under 45°



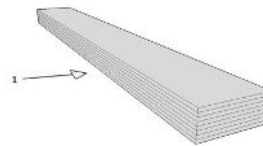
Printed horizontal X,Y-axis

Infill	100%
Tensile strength (Mpa)	20~23
Elongation at break (%)	15~19
E modulus (Mpa)	2900~3000

MECHANICAL PROPERTIES|IMPACT TEST
Test Method ISO 179

The same conditions as tensile test.

1→impact direction

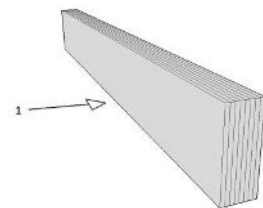


Infill	100%
Impact strength (KJ/m ²)	10~11
Notch impact strength ¹ (KJ/m ²)	19~23

MECHANICAL PROPERTIES |FLEXURAL TEST
Test Method ISO 178

The same conditions as tensile test.

1→bending direction



Infill	100%
Maximum force (Mpa)	34~35
Flexural modulus (Mpa)	1700~1800

1. 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