TECHNICAL DATA SHEET

KEXCELLED PEEK K10CF

Product code:	Revision Number：	Revision date:	TDS No.:
PEEK K10CF	03	20/01/2022	KT04.20.4504

Characteristic:

Excellent heat resistance|high strength|excellent chemical resistance|flame resistance

IDENTFICATION OF THE MATERIAL	
Trade name	PEEK K10CF
Chemical name	PEEK/CF
Use	3D Printing
Origin	KEXCELLED
GUIDELINE FOR PRINT SETTINGS	
Nozzle temperature	400~450℃
Bed temperature	100~220℃
Chamber temperature	80~220℃
Bed modification	NO
Active cooling fan	OFF
Layer height	0.2mm
Shell thickness	≥0.8mm
Print speed	30~60mm/s

Settings are based on a 0.4mm nozzle.

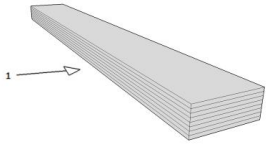
MATERIAL PROPERTIES		Test Method
Melt temperature	~340℃	ISO 11357
Melt flow rate (MFR) [1]	10~15 g/10min	ISO 1133
Heat deflection temperature(HDT) [2]	200℃	ISO 75
Vicat softening temperature(VST) [3]	/	ISO 306
density	1.12g/cm^3	ISO 1183
Odor	Odorless	/
Solubility	Insoluble in water	/

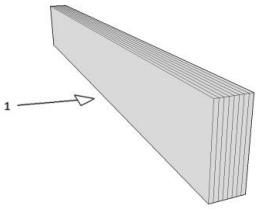
1.test conditions: T= 380℃; m= 5kg.

2. test conditions:0.45MPa;120℃/h.

3. test conditions:10N; 120℃/h.

MECHANICAL PROPERTIES|TENSILE TEST	Test Method ISO 527
All test specimens were printed using an INTAMSYS FUNMAT HT under the following conditions： Printing temperature: 445℃ Heated bed temperature：145℃ Chamber temperature: 90℃ Print speed：50mm/s Shell thickness：1.2mm	
Infill under 45°	Printed horizontal X,Y-axis
Infill	100%
Tensile strength（Mpa）	85~90
Elongation at break（%）	3~6
Emodulus（Mpa）	7000~8000

MECHANICAL PROPERTIES|IMPACT TEST	Test Method ISO 179
The same conditions as tensile test. 1→impact direction	
Infill	100%
Impact strength（KJ/m^2）	30~35
Notch impact strength[1]（KJ/m^2）	8~12

MECHANICAL PROPERTIES |FLEXURAL TEST	Test Method ISO 178
The same conditions as tensile test. 1→bending direction	
Infill	100%
Maximum force（Mpa）	120~130
Flexural modulus（Mpa）	5000~6000

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