

TECHNICAL DATA SHEET

Prima Creator Select Flex TPU 77D

Product code:	Revision Number:	Revision date:	TDS No.:
Select TPU 77D	04	03/06/2024	KT036

BRIEF INTRODUCTION:

Filament suitable for all commercially available leading brands FDM/FFF Printers.

CHARACTERISTIC

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

IDENTIFICATION OF THE MATERIAL

Trade name	Select Flex TPU 77D
Chemical name	Thermoplastic polyurethanes
Use	3D Printing
Origin	Prima Creator

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	215~240°C
Bed temperature	55~80°C
Bed modification	Tape or glue below 60°C
Active cooling fan	ON, 100%
Layer height	0.2mm
Shell thickness	≥0.8mm
Print speed	20-50mm/s

Settings are based on a 0.4mm nozzle.

MATERIAL PROPERTIES		Test Method
Melt flow rate (MFR)¹	Not determined	ISO 1133
Heat deflection temperature(HDT)²	/	ISO 75
density	1.24g/cm ³	ISO 1183
Odor	Odorless	/
Solubility	Insoluble in water	/

1. test conditions: T= 210°C; m= 2.16kg.

2. test conditions:0.45MPa;130°C/h.

MECHANICAL PROPERTIES|TENSILE TEST
Test Method ISO 527

All test specimens were printed using an Raise3D E2 under the following conditions:

Printing temperature: 225°C

Heated bed temperature: 55°C

Print speed: 50mm/s

Shell thickness: 1.2mm

Infill under 45°



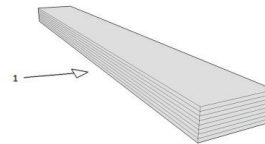
Printed horizontal X,Y-axis

Infill	100%
Tensile strength (Mpa)	40~45
Elongation at break (%)	350~360

MECHANICAL PROPERTIES|IMPACT TEST
Test Method ISO 179

The same conditions as tensile test.

1→impact direction

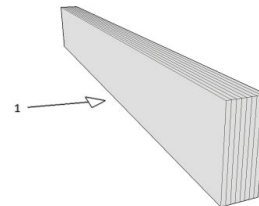


Infill	100%
Impact strength (KJ/m ²)	24~27
Notch impact strength ¹ (KJ/m ²)	4~5

MECHANICAL PROPERTIES |FLEXURAL TEST
Test Method ISO 178

The same conditions as tensile test.

1→bending direction



Infill	100%
Maximum force (Mpa)	69~74
Flexural modulus (Mpa)	2000~2100

MECHANICAL PROPERTIES|TEAR TEST

Test Method ISO 34

The same conditions as tensile test.



Infill	100%
Tear strength (N/mm)	133~143
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