Technical Data Sheet

Product Name: PETG

Material Identification:

Item Name	PETG
Chemical Name	Poly(ethylene terephthalateco-1,4-cylclohexylenedimethylene terephthalate)
Application	FFF/FDM 3D Printing

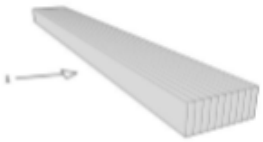
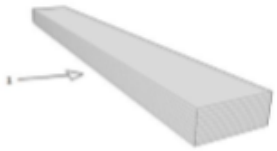
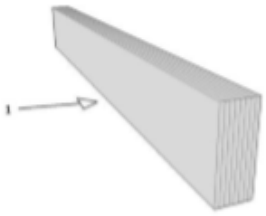
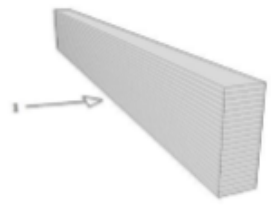
Guidelines for Print Settings:

Nozzle Temperature	230~250℃
Bed Temperature	55~85℃
Bed Modification	NO
Active Cooling Fan	ON，100%
Layer Height	0.2mm
Shell Thickness	≥0.8mm
Print Speed	40-80mm/s

Material Properties:

Melt Temperature	~200	ISO 11357
Glass Transition Temperature	~70℃	ISO 11357
Melt Flow Rate	8.3g/10min	/
Heat deflection temperature (HDT)2	70.6℃	ISO 75
Vicat softening temperature(VST)3	78.5℃	ISO 306
Density	1.27g/cm3	ISO 1183
Odour	Odourless	/
Solubility	Insoluble in water	/

Mechanical Properties Tensile Test – Test Method ISO 527

MECHANICAL PROPERTIES TENSILE TEST			Test Method ISO 527	
All tests specimens were printed by Ultimaker 2+ under the following conditions: Printing temperature: 240℃ Heated bed temperature: 70℃ Print speed: 45mm/s Shell thickness: 0.8mm Infill under 45°	 Printed Vertical Z-axis		 Printed horizontal X,Y-axis	
Infill	50%	100%	50%	100%
Tensile strength（Mpa）	11.1	18.5	25.7	36.6
Force at break（Mpa）	11.1	18.5	25.7	36.6
Elongation at break（%）	3.6	4.0	10.0	10.9
Modulus（Mpa）	316	568	405	488
MECHANICAL PROPERTIES IMPACT TEST			Test Method ISO 179	
The same conditions as tensile test. 1→impact direction	 Charpy(en)		 Charpy(ep)	
Infill	50%	100%	50%	100%
Impact strength（KJ/m²）	21.1	23.4	9.0	53.0
Notch impact strength[1]（KJ/m²）	3.0	2.1	3.1	5.2
MECHANICAL PROPERTIES FLEXURAL TEST			Test Method ISO 178	
The same conditions as tensile test. 1→bending direction	 Normal		 parallel	
Infill	50%	100%	50%	100%
Maximum force（Mpa）	50.1	62.2	61.6	65.0
Flexural modulus（Mpa）	1443	1669	1711	1747

Notch type: type A

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