



ROYALFILAMENTS

PLA matte TECHNICAL DATA SHEET

HIGH QUALITY

- Neat winding
- No bubbles
- Solid spool
- No warped



HEALTHY MATERIAL

- No toxic
- No odor
- RoHS material

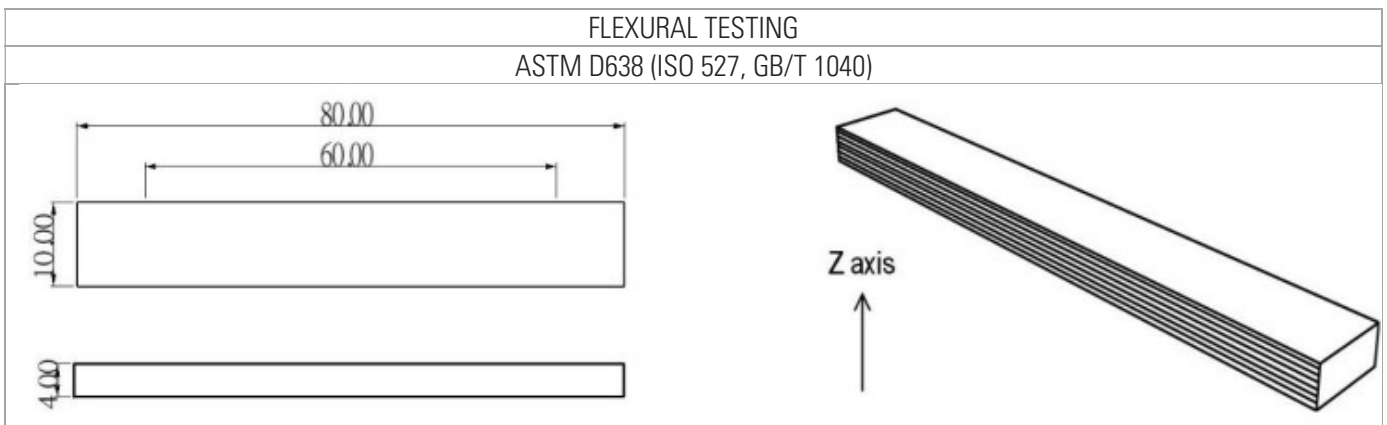
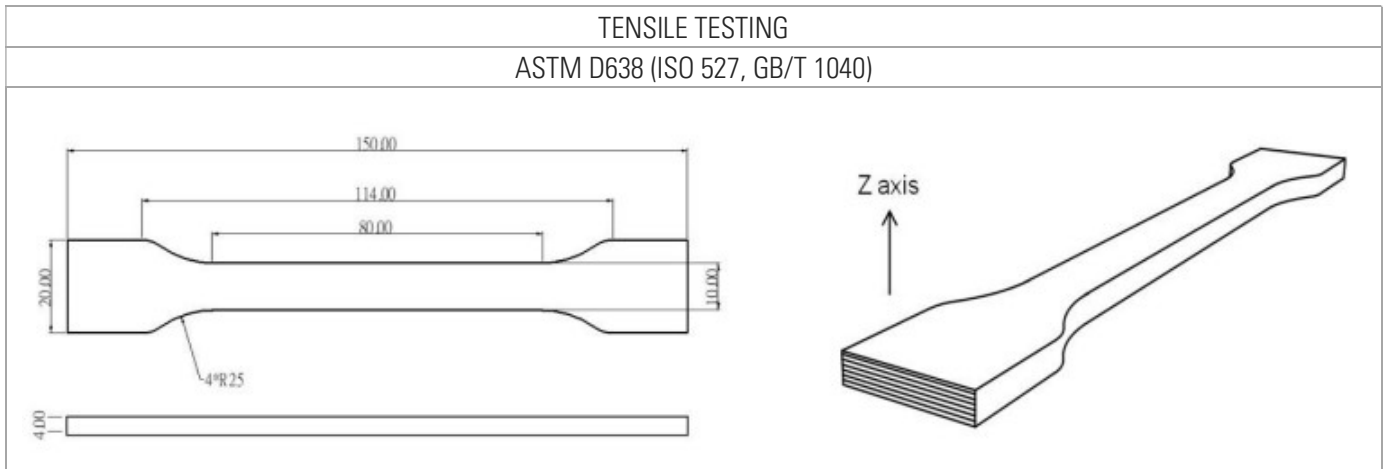
PHYSICAL PROPERTIES		
PLA MATTE		
PROPERTY	TESTING METHOD	TYPICAL VALUE
Density	ISO1183, GB/T1033	1.31±0.02 g/cm ³ at 21° C
Melt Index	210° C, 2.16kg	14-20 g/10min

CHEMICAL RESISTANT DATA	
PROPERTY	TESTING METHOD
Effect of weak acids	Not Resistant
Effect of strong acids	Not Resistant
Effect of weak alkalis	Not Resistant
Effect of strong alkalis	Not Resistant

THERMAL PROPERTIES		
PROPERTY	TESTING METHOD	TYPICAL VALUE
Glass transition	DSC, 10° C/min	60.4 ° C
Melting temperature	DSC, 10° C/min	162.4 ° C
Decomposition temperature	TGA, 20° C/min	N/A
Vicat softening temperature	ISO 306 GB/T 1633	62.8 ° C
Heat deflection temperature	ISO 75 1.8MPa	° C
Heat deflection temperature	ISO 75 0.45MPa	° C

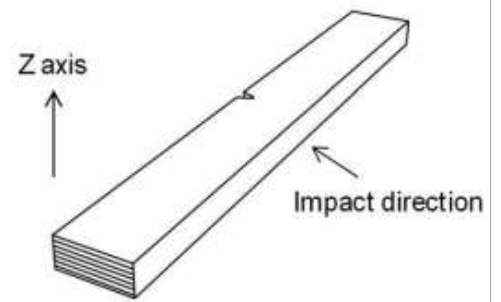
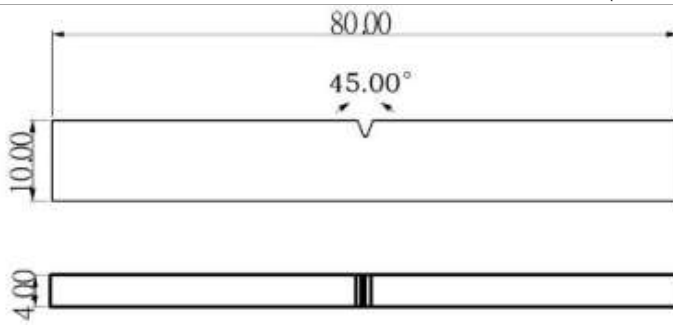
PRINTING PARAMETERS		
PROPERTY	TESTING METHOD	TYPICAL VALUE
Young's modulus (X-Y)	ISO 527, GB/T 1040	1886 ± 141 MPa
Young's modulus (Z)		1867.7 ± 38
Tensile strength (X-Y)	ISO 527, GB/T 1040	20.8 ± 2.0 MPa
Tensile strength (Z)		18.1 ± 0.3 MPa
Elongation at break (X-Y)	ISO 527, GB/T 1040	34.7 ± 8.1 %
Elongation at break (Z)		2.52 ± 0.83
Bending modulus (X-Y)	ISO 178, GB/T 9341	2698 ± 541 MPa
Bending modulus (Z)		N/A
Bending strength (X-Y)	ISO 178, GB/T 9341	39.75 ± 1.1 MPa
Bending strength (Z)		N/A
Charpy impact strength (X-Y)	ISO 179, GB/T 9343	5.82 ± 0.4 kJ/m ²
Charpy impact strength (Z)		N/A

CHEMICAL RESISTANT DATA	
PARAMETER	TESTING METHOD
Nozzle temperature	190 – 230 (°C)
Build Surface material	Glass, PEI plate,
Build surface treatment	Glue, Magigoo, 3dLack
Build plate temperature	40 - 60 (°C)
Cooling fan	Turned on
Printing speed	<200 (mm/s)



IMPACT TESTING

ASTM D638 (ISO 527, GB/T 1040)



DISCLAIMER

The typical values presented in this data sheet are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End-use performance of printed parts depends not only on materials, but also on part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

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Warning: Do not eat / Keep in dry

PLA MATTE filament should be dried at a temperature of around 45°C for more than four hours.

Manufacturer: ROYALFILAMENTS OEM , Polymakery Wuyi Sting 3D Technology Co., Ltd.



Print it easily and royally