

## Premium PLA Filament

Physical Properties			
Property	Testing Method	Typical Value	Unit
Density	ASTM D792 (ISO 1183, GB/T 1033)	1.17-1.24	g/cm <sup>3</sup>
Glass transition temperature	DSC, 10°C/min	50-60	°C
Softening temperature of filament (for 1.75mm)	Custom method	146-150	°C
Melt index (g/10min)	210°C, 2.16kg	7-11	g/10min
Moisture content <sup>1</sup>	Thermogravimetric	≤0.1%	%
Odor	/	Almost odorless	/
Solubility	/	Insoluble in water; soluble in chloroform, toluene, and tetrahydrofuran(THF)	/

Note:

1. For newly opened filaments; filaments may absorb higher levels of moisture during use.

Mechanical Properties			
Items	Testing Method	Typical Value	Unit
Tensile strength	ASTM D638 (ISO 527, GB/T 1040)	46.6 ± 0.9	MPa
Elongation at break	ASTM D638 (ISO 527, GB/T 1041)	1.90 ± 0.21	MPa
Bending modulus	ASTM D790 (ISO 178, GB/T 9341)	3283 ± 132	MPa
Bending strength	ASTM D790 (ISO 178, GB/T 9342)	85.1 ± 2.9	MPa
Impact strength	ASTM D256 (ISO 179, GB/T 1043)	2.68 ± 0.16	MPa