

■ 1.75mm ±0.03mm— Pure White/ Milk White/ Carbon Black

# HIGH TEMP PLA



The printing parameters of QTS High-Temperature PLA are the same as common PLA. The specially engineered QTS HT-PLA allows the user to produce high quality 3D printed models effortlessly with little warpage.

The enhanced thermal and mechanical properties of the QTS HT-PLA can be achieved with a short 10 minutes post-print heat treatment (Annealing). The HDT of QTS HT-PLA can be up to 137°C (282°F). That is significantly higher than the common PLA (55°C/131°F) on the market. In comparison to the HDT of ABS, the QTS HT-PLA HDT is 37°C (70°F) higher (137°C vs 100°C).

The superior characteristics of the QTS HT-PLA, (ease of printing, minimal warpage, high heat resistance,) can expand its uses in demanding applications that common PLA has not been able to meet.

## TYPICAL MATERIAL PROPERTIES

Rev 1.4

Physical properties	Unit	Value	Method	Remark
Tensile strength	Kgf/cm2	502	ASTM D638	No Heat Treated
		554.6		25°C 50%RH
		420.6		70°C 50%RH
		331.9		130°C 15hr
Elongation	%	31.3	ASTM D638	No Heat Treated
		1.6		25°C 50%RH
		1.3		70°C 50%RH
		0.8		130°C 15hr
Charpy unnotched impact strength	kJ/m2	12.3	ISO 179-1/1 eU	
Charpy notched impact strength		2.58		
		12.8		No Heat Treated
Heat Deflection Temperature	°C	85	ASTM D648-07	No Heat Treated
		137		10-minute annealing at 120°C (248°F)

※ The enhanced thermal and mechanical properties of the QTS HT-PLA can be achieved with a short 10 minutes post-print heat treatment (Annealing) at 120°C (248°F). The HDT of QTS HT-PLA can be up to 137°C (282°F).

## PRINT SETTING( Based on zortrax M200 Plus Profile )

Setting	Unit	Value
Nozzle Temperature	°C	200 ~ 220
Heated Bed Temperature	°C	50 ~ 60
Print Speed	mm/s	40 ~ 70 mm/s
Nozzle Diameter	mm	0.4
Layer Thickness	mm	0.14
Flow Rate/Extrusion Multiplier	%	100
Extruder Flow Ratio	%	0 ~ 10