

3DQF PLA

TDS

Technical Data Sheet

TDS OUTLINE

This TDS forms the basis of the raw material without the addition of colouring. Any additive, colouring or other will alter the material properties. This TDS deals with the base polymer with no additives or colouring added.

CONTACT

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SOCIAL MEDIA

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PRODUCT OVERVIEW PLA-000

- Product Name: 3DQF PLA (Standard)
- Description: Made Exclusively for use within FDM 3D Printing
- Material Type: PLA
- Colour : Various

PHYSICAL PROPERTIES

- Diameter: 1.75mm & 2.85mm
- Diameter Tolerance: ± 0.03 mm
- Density: 1.24 g/cm³
- Spool Size: (MM) OD194 X ID70 X W69

MECHANICAL PROPERTIES

- Tensile Yield Strength PSI (MPa):-----8,700 (60)
- Tensile Strength at Break PSI (MPa):-----7,700 (53)
- Flexural Strength PSI (MPa):-----12,000 (83)
- Flexural Modulus PSI (MPa):-----555,000 (3.8)
- Impact Strength Notched Izod ft0lb/in (J/m)—0.3 (16)

THERMAL PROPERTIES

- Glass Transition Temperature (Tg): -----55-60°C
- Melting Temperature (Tm):-----145-160°C
- Heat Deflection Temperature @ 66PSI: -----55 °C

PRINTING PARAMETERS

- Extrusion Temperature @ 60-120mm/s:-----210-220°C
- Extrusion Temperature @ 120-250mm/s:-----220-240°C
- Extrusion Temperature @ 250-400mm/s:-----240-270°C
- First Layer temperature:-----210-225°C
- Bed Temperature: 50°C or PEI 60°C
- Print Speed: 80-300 mm/s
- Cooling Fan: Zero cooling first layer, 100% thereafter
- Chamber temp not to exceed 38°C

DRYING REQUIREMENTS

- *Drying equipment: Dry Box with desiccant or heated drying box*
- *Drying temp: Maximum 40°C
Drying Time :4-6 Hours*

STORAGE AND HANDLING

- *Storage Conditions: Protect against moisture, dust and direct sunlight*
- *Shelf Life: In correct storage conditions 3+ years*
- *Handling Precautions: Never leave the end of filament free, always use holding straps on the side of the spool.*
- *Drying Process: Care should be taken when drying filament, do not exceed 40°C.*
- *Unloading, Edge roller unloading will require printed rings (Contact for details)*

SAFETY DATA

- *MSDS Availability: Raw Material Safety Data Sheet (MSDS) is available Upon request*
- *Certifications and Standards: Product is made to exceed ISO 5425:2023 although not ISO Certified we maintain best practice as we work toward certification.*
- *EN73 Part 3 Colouring certification available upon request*
- *Always use in well-ventilated area*

TECHNICAL SUPPORT

Warranty: We stand fully behind our filament if you have any issue please contact with us for technical assistance, Return, Refund or Replacement process.

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CONTACT DETAILS

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