

# 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

PHONE NUMBER:  
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WEBSITE:  
3DQF.UK

EMAIL ADDRESS:  
Sales@3DQualityFilaments.co.uk

#### SOCIAL MEDIA

Youtube @3DQF-UK  
Facebook @3DQF.CO.UK  
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#### ADDRESS

3DQF  
Unit 6  
Plat fold St  
Leigh  
WN7 1JH  
United Kingdom

#### PRODUCT OVERVIEW PLA-PLUS-000

- Product Name: 3DQF PLA-Plus
- Description: Made Exclusively for use within FDM 3D Printing
- Material Type: PLA-Plus
- Colour : Various
- High crystallization rates

#### PHYSICAL PROPERTIES

- Diameter: 1.75mm & 2.85mm
- Diameter Tolerance:  $\pm 0.03$ mm
- Density: 1.24 g/cm<sup>3</sup>
- Spool Size: (MM) OD194 X ID70 X W69

#### MECHANICAL PROPERTIES

- Tensile Yield Strength PSI (MPa):-----7,440 (51)
- Tensile Strength PSI (MPa):-----7,290 (50)
- Tensile Modulus, PSI (MPa)-----335,790 (923150)
- Impact Strength Notched Izod ft0lb/in (J/m)—2.21 (186)

#### THERMAL PROPERTIES

- Glass Transition Temperature (Tg): -----55-60°C
- Melting Temperature (Tm):-----165-180°C
- Heat Deflection Temperature @ 66PSI: -----8--90 °C
- Post-annealing Temperatures-----80-135°C

#### PRINTING PARAMETERS

- Extrusion Temperature @ 60-120mm/s:-----220-230°C
- Extrusion Temperature @ 120-250mm/s:-----230-250°C
- Extrusion Temperature @ 250-400mm/s:-----250-270°C
- First Layer temperature:-----220-230°C
- Bed Temperature: 50°C or PEI 60°C
- Print Speed: 80-300 mm/s
- Cooling Fan: Zero cooling first layer, 100% thereafter
- Printing Chamber temp not to exceed 38°C

## DRYING REQUIREMENTS

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

## STORAGE AND HANDLING

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- *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

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- *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 a well-ventilated area*

## TECHNICAL SUPPORT

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

*Revision Date:01/01/2020 V3*

## CONTACT DETAILS

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