



## Technical Data Sheet 3D Printing Filament

**Material:** PETG-HF

**Description:**

PETG-HF is a toughness-modified PETG engineered specifically for high-speed 3D printing. It delivers excellent flow behavior, enabling faster print speeds with consistent layer bonding, while offering enhanced mechanical strength and heat resistance compared to standard PETG. PETG-HF combines ease of printing with enhanced durability, making it ideal for both functional and end-use parts.

| Physical Properties | Typical Value          | Test Method |
|---------------------|------------------------|-------------|
| Density             | 1.29 g/cm <sup>3</sup> | ASTM D792   |
| Dia Tolerance       | +/-0.03                |             |
| Weight              | 1000gm                 |             |
| MFR                 | 2-3 g/10min            | ISO 1133    |

| Mechanical Properties (Printed) | Typical Value          | Test Method |
|---------------------------------|------------------------|-------------|
| Tensile Strength                | 54MPa                  | ISO-527     |
| Elongation at Break             | 15%                    | ISO-527     |
| Flexural Modulus                | 2145 N/mm <sup>2</sup> | ISO-527     |
| Flexural Strength               | 73MPa                  | ISO-178     |
| Impact Strength                 | 5.6 KJ/M <sup>2</sup>  | ISO-179     |

| Thermal Properties          |             |         |
|-----------------------------|-------------|---------|
| Heat Deflection Temperature | 80°C        | ISO 306 |
| Melting Temperature         | 200 °C +/-5 | ISO 306 |

| Print Settings |              |                    |
|----------------|--------------|--------------------|
| 1st Layer Temp | 240-250      | °C                 |
| Printing Temp  | 235-265      | °C                 |
| Flow Ratio     | 0.95-0.96    | %                  |
| Bed Temp       | 80-90        | °C                 |
| Bed Surface    | PEI Textured |                    |
| Cooling        | 0-50%        | %                  |
| Speed          | 18-21        | mm <sup>3</sup> /s |

\* Dry Filament before use - 60/ 6hrs

**Document:** TDS PETG-HF  
**Issue Date:** 04/01/2025  
**Release Version:** V1.0