TOUGHPLA
by ideagen3D

PLA is the most common material used in 3D printing. ToughPLA goes one step further by providing the ease of printability, while still offering superior impact resistance for more rugged applications. Its low thermal expansion allows for easier, no warp prints giving full geometric freedom when designing parts.

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APPLICATIONS

- Concept Models
- Functional Prototypes
- Most applications where impact resistance is desired and continuous high temperature is not a consideration

BEST PRACTICES

- For best results(strength), anneal printed parts in gentle heat
- For best surface finish, use wet sanding. Dry sanding can warp printed parts if done excessively

TECHNICAL SPECS

Recommended Print Settings:	
Nozzle Temperature:	**205±10 °C**
Bed Temperature:	**40-60 °C**
Physical Properties:	
Density (g/cm3)	**1.25**
Tensile Strength (MPa)	**69**
Elongation at Break(%)	**12**
IZOD Impact Strength(KJ/m^2)	**9**
Filament Specifications:	
Diameter	**1.75±0.02mm**
Maximum roundness deviation	**0.03mm**
Net Filament Weight	**1000g**
Thermal Properties:	
Vicat Softening Temperature	**64°C**
Glass Transition Temperature	**63°C**
Melting Temperature	**151°C**
Auto-ignition Temperature	**388°C**

DISCLAIMER

The results presented in this data sheet are provided for information and comparison. Values are significantly dependent on print settings, operators experiences and surrounding conditions. Ideagen3D shall not carry any responsibility for injuries or any loss caused by the use of ToughPLA by Ideagen3D.

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