

# PETG

## Technical Data Sheet

PETG is a high cost performance material with water resistance, chemical resistance and high toughness. It's tougher than ABS. The printed product has translucent and smooth surface. It's easy to print as PLA with no need of temperature chamber.

Material Status	Mass Production	
Characteristics	<ul style="list-style-type: none"> <li>• Transparent</li> <li>• Great toughness</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical resistance</li> <li>• Water resistance</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• Advertisement</li> <li>• Waterproof application</li> </ul>	<ul style="list-style-type: none"> <li>• Snap-in parts</li> <li>• Flower pot</li> </ul>
Form	• Filament	
Processing method	• 3D Print, FDM Print	

	testing method	Typical value	
Physical Properties			
Density	GB/T 1033	1.27	g/cm³
Melt Flow Index	GB/T 3682	20	(190°C/2.16kg)
Mechanical Properties			
Tensile Strength	GB/T 1040	52.2	MPa
Elongation at Break	GB/T 1040	4	%
Flexural Strength	GB/T 9341	58.1	MPa
Flexural Modulus	GB/T 9341	1073	MPa
IZOD Impact Strength	GB/T 1843	4.7	kJ/m²
Thermal Properties			
Heat distortion Temperature	GB/T 1634	64	°C
Continuous Service Temperature	IEC 60216	N/A	
Maximum (short term) Use Temperature		N/A	
Electrical Properties			
Insulation Resistance	DIN IEC 60167	N/A	
Surface Resistance	DIN IEC 60093	N/A	

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### Recommended printing parameters

Extruder Temperature	230- 250°C
Build Platform Temperature	75-90°C
Fan Speed	100%
Printing Speed	40 - 100mm/s

Based on 0.4 mm nozzle and Simplify 3D v.4.1.2. Printing conditions may vary with different nozzle diameters

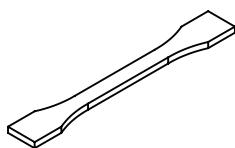
### Drying Recommendations

N/A

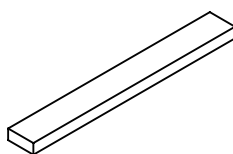
### Precautions:

Turn on the Z seam alignment . Turn off the Z-axis lifting with drawing.  
Slower the printing speed.

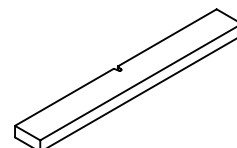
### Mechanical Properties



Tensile testing specimen GB/T 1040



Flexural testing specimen GB/T 9341



Impact testing specimen GB/T 1043

The physical properties, mechanical properties, thermal properties, and electrical properties of the line are obtained based on the injection molding spline test.

### Print test condition:

Extruder Temperature	230-250°C
Build Platform Temperature	75°C
Outline/Perimeter Shells	4
Top/Bottom Layers	4
Infill Percentage	20%
Fan speed	100%
Printing speed	40mm/s

Based on 0.4 mm nozzle and Simplify 3D v.4.1.2.

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