

# EP081001TR001-TDS

## COCOON PETG-Basic

It is a translucent 3D printing material characterized by high fluidity, excellent chemical resistance, balanced performance, and ease of printability. Parts printed with this material exhibit good toughness, low warpage, high surface gloss, and refined translucency. They are resistant to chemical corrosion, weathering, and yellowing, while also being eco-friendly and free of Bisphenol A. This material is suitable for 3D printing applications requiring enhanced toughness and impact resistance, aesthetic models with specific surface quality demands, household appliance accessories, electronic product components, cosmetic containers, and more.

### Part 1 Injection-Molded Specimen Performance

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	ISO 1183	g/cm <sup>3</sup>	1.28
Melt Flow Rate	230°C, 2.16kg	ISO 1133	g/10min	10
Mechanical Properties				
Tensile Strength	5mm/min	ISO 527-1	MPa	50
Elongation @ Break	5mm/min	ISO 527-1	%	5
Flexural Strength	2mm/min	ISO 178	MPa	70
Flexural Modulus	2mm/min	ISO 178	MPa	2200
Impact Strength, Notched	1J	ISO 179-1	kJ/m <sup>2</sup>	5
Thermal Property				
Heat Deflection Temperature	0.45MPa	ISO 75-1	°C	75

*Note: The typical physical properties are not intended for use as sales specifications.*

## Part 2 Printed Specimen Performance

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Mechanical Properties				
Tensile Strength(X-Y)	50mm/min	ISO 527-1	MPa	58
Tensile Strength(Z)	50mm/min	ISO 527-1	MPa	31
Flexural Strength	2mm/min	ISO 178	MPa	81
Flexural Modulus	2mm/min	ISO 179-1	MPa	2200
Impact Strength, Notched	1J	GB/T 1843	kJ/m2	4
Thermal Property				
Heat Deflection Temperature	0.45MPa	ISO 75-1	°C	75

*Note: All specimens are printed under the following conditions: nozzle temperature = 250°C, printing speed = 100 mm/s, build plate temperature=75°C infill = 100%, nozzle diameter = 0.4mm.*



Printing Path Direction of Specimen (Z)



Printing Path Direction of Specimen (X-Y)

## Part 3 Printing Guidelines

Parameters	Settings
Nozzle Temperature	250°C
Build Plate Temp.	75°C
Build Plate Material	Glass、PEI、 Steel Spring Build Plate
Bottom Layer Printing Temp.	250°C
Enclosed-chamber Printing	/
Print Speed	60-150mm/s
Drying recommendations	60°C, 4-8h

Disclaimer:

The values provided in this data sheet are for reference and comparison purposes only. They should not be used for design specifications or quality control. Actual values may vary depending on printing conditions. The ultimate performance of printed parts depends not only on the material but also on the part design, environmental conditions, and printing conditions. The product specifications are subject to change without notice.

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