

DP021001NC002-TDS

COCOON PLA-Vine

It is a bio-based and environmentally friendly filament with exceptional toughness and safety. It features low shrinkage, minimal warping, stable extrusion, and easy printability, presenting a semi-transparent, slightly translucent texture. It is suitable for 3D printing applications that require toughness and precision, such as aesthetic detail models or complex industrial design prototypes.

Part 1 Injection-Molded Specimen Performance

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	ISO 1183	g/cm ³	1.24
Melt Volume Rate	190°C,2.16kg	ISO 1133	g/10min	5
Mechanical Properties				
Tensile Strength	5mm/min	ISO 527-1	MPa	60
Elongation @ Break	5mm/min	ISO 527-1	%	5
Flexural Strength	2mm/min	ISO 178	MPa	90
Flexural Modulus	2mm/min	ISO 178	MPa	2800
Impact Strength, Notched	2.75J	ISO 179-1	kJ/m ²	8

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	61
Tensile Strength(Z)	50mm/min	ISO 527-1	MPa	30
Flexural Strength	2mm/min	ISO 178	MPa	85
Flexural Modulus	2mm/min	ISO 178	MPa	2800
Impact Strength, Notched	2.75J	ISO 179-1	kJ/m ²	5

Note: All specimens are printed under the following conditions: nozzle temperature = 200°C, printing speed = 130 mm/s, build plate temperature=60°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	190-220°C
Build Plate Temp.	50-65°C
Build Plate Material	Glass、 PEI、 Steel Spring Build Plate
Bottom Layer Printing Temp.	200-210°C
Enclosed-chamber Printing	/
Print Speed	60-200mm/s
Drying recommendations	40-50 °C in a hot air dryer for 4-8hours

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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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