

# DP024202NC001-TDS

## COCOON PLA- Cactus(HT)

It is a bio-based environmentally friendly material with high temperature resistance, extremely low warpage and shrinkage, and non-toxicity. It has no odor or dust is produced during the printing process. It is also characterized by ease of printing and molding, good heat resistance, dimensional stability, and a matte texture. It is suitable for industrial components, jigs and fixtures, and channel letters materials that require higher printing accuracy.

### 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>	1.24
Melt Flow Rate	190°C, 2.16kg	ISO 1133	g/10min	6
Mechanical Properties				
Tensile Strength	5mm/min	ISO 527-1	MPa	56
Elongation @ Break	5mm/min	ISO 527-1	%	10
Flexural Strength	2mm/min	ISO 178	MPa	80
Flexural Modulus	2mm/min	ISO 178	MPa	2700
Impact Strength, Notched	2.75J	ISO 179-1	kJ/m <sup>2</sup>	5

*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	42
Tensile Strength(Z)	50mm/min	ISO 527-1	MPa	25
Impact Strength, Notched	2.75J	ISO 179-1	kJ/m <sup>2</sup>	5
Flexural Strength	2mm/min	ISO 178	MPa	81

*Note: All specimens are printed under the following conditions: nozzle temperature = 210°C, printing speed = 60 mm/s, the build plate is not heated, 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	200-230°C
Build Plate Temp.	65°C
Build Plate Material	Glass、PEI、 Steel Spring Build Plate
Bottom Layer Printing Temp.	220-230°C
Enclosed-chamber Printing	/
Print Speed	60-200mm/s
Drying recommendations	40-50 °C in a hot air dryer for 4-8hours

#### 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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