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/cm3	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/m2	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/m2	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