

EP073106BK001-TDS

COCOON ASA-Birch(CF)

COCOON ASA-Birch(CF) is a carbon fiber reinforced ASA engineering plastic. This material retains the inherent UV and weather resistance characteristic of ASA, ensuring long-term durability for outdoor use. Simultaneously, the carbon fiber imparts a uniform, fine matte texture and an exquisite appearance to printed parts. It is suitable for 3D printing outdoor durable components that require both durability and a specific surface finish, such as outdoor gardening tools, and windproof and sunshade covers.

Part 1 Injection-Molded Specimen Performance

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	ISO 1183	g/cm3	1.08
Melt Volume Rate	220°C, 10kg	ISO 1133	g/10min	40
Mechanical Properties				
Tensile Strength	5mm/min	ISO 527-1	MPa	35
Elongation @ Break	5mm/min	ISO 527-1	%	5
Flexural Strength	2mm/min	ISO 178	MPa	55
Flexural Modulus	2mm/min	ISO 178	MPa	3400
Impact Strength, Notched	1J	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	43
Tensile Modulus(X-Y)	50mm/min	ISO 527-1	MPa	3500
Tensile Strength(Z)	50mm/min	ISO 178	MPa	20
Tensile Modulus(Z)	50mm/min	ISO 178	MPa	2000
Flexural Strength	2mm/min	ISO 178	MPa	54
Flexural Modulus	2mm/min	ISO 178	MPa	3800
Impact Strength, Notched	2.75J	ISO 179-1	kJ/m2	7
Thermal Property				
Heat Deflection Temperature	0.45MPa	ISO 75-1	°C	82

Note: All specimens are printed under the following conditions: nozzle temperature = 280°C, printing speed = 130 mm/s, build plate temperature=95°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	280°C
Build Plate Temp.	90-100°C
Build Plate Material	Glass、PEI、Steel Spring Build Plate
Bottom Layer Printing Temp.	280°C
Enclosed-chamber Printing	Yes
Print Speed	60-200mm/s
Drying recommendations	80 °C in a hot air dryer for 4hours

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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