

EP072106NC001-TDS

COCOON ASA-Vine

It is an easy-to-print series of filaments that features high strength, high rigidity, weather resistance, anti-yellowing, anti-aging, and corrosion resistance. It is easy to print, with low risk of cracking and warping, and supports an open printing environment. The printed items are strong and sturdy, with a matte frosted surface texture, making it suitable for end-use parts that require certain strength or weather resistance, such as automotive interior parts, garden furniture, and outdoor recreational facilities.

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	1.09
Melt Volume Rate	220°C, 10kg	ISO 1133	g/10min	45
Mechanical Properties				
Tensile Strength	5mm/min	ISO 527-1	MPa	35
Elongation @ Break	5mm/min	ISO 527-1	%	10
Flexural Strength	2mm/min	ISO 178	MPa	60
Flexural Modulus	2mm/min	ISO 178	MPa	2700
Impact Strength, Notched	1J	ISO 179-1	kJ/m ²	9

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	39
Tensile Modulus(X-Y)	50mm/min	ISO 527-1	MPa	2418
Tensile Strength(Z)	50mm/min	ISO 527-1	MPa	22
Tensile Modulus(Z)	50mm/min	ISO 527-1	MPa	1922
Elongation @ Break	50mm/min	ISO 527-1	%	6
Flexural Strength	2mm/min	ISO 178	MPa	57
Flexural Modulus	2mm/min	ISO 178	MPa	2466
Impact Strength, Notched	2.75J	ISO 179-1	kJ/m ²	8
Thermal Property				
Heat Deflection Temperature	0.45MPa	ISO 75-1	°C	86

Note: All specimens are printed under the following conditions: nozzle temperature = 270°C, printing speed = 150 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	270°C
Build Plate Temp.	90-100°C
Build Plate Material	Glass、PEI、Steel Spring Build Plate
Bottom Layer Printing Temp.	260°C
Enclosed-chamber Printing	Support open printing / Enclosed printing provides better results
Print Speed	100-200mm/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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