

# EP061016NC001-TDS

## COCOON ABS-Vine(LO)

It is a low-odor ABS material that supports open-environment printing. It retains the advantages of ABS while adopting a low-odor formulation that is more environmentally friendly. Some models can be printed without an enclosed chamber, ensuring high-quality results, achieving a balance between low odor and ease of printing. The material is also impact-resistant, creep-resistant, abrasion-resistant, and chemically resistant, with a heat resistance of up to 88°C. It is suitable for 3D printing applications such as automotive interior parts, industrial design prototypes, and consumer product housings.

### 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>	1.06
Melt Volume Rate	220°C, 10kg	ISO 1133	g/10min	20
Mechanical Properties				
Tensile Strength	5mm/min	ISO 527-1	MPa	45
Elongation @ Break	5mm/min	ISO 527-1	%	10
Flexural Strength	2mm/min	ISO 178	MPa	65
Flexural Modulus	2mm/min	ISO 178	MPa	2100
Impact Strength, Notched	1J	ISO 179-1	kJ/m <sup>2</sup>	18

*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 Modulus(X-Y)	50mm/min	ISO 527-1	MPa	1900
Tensile Strength(Z)	50mm/min	ISO 178	MPa	25
Tensile Modulus(Z)	50mm/min	ISO 178	MPa	1700
Flexural Strength	2mm/min	ISO 178	MPa	58
Flexural Modulus	2mm/min	ISO 178	MPa	1850
Impact Strength, Notched	2.75J	ISO 179-1	kJ/m <sup>2</sup>	27
Thermal Property				
Heat Deflection Temperature	0.45MPa	ISO 75-1	°C	88

*Note: All specimens are printed under the following conditions: nozzle temperature = 270°C, printing speed = 200 mm/s, build plate temperature=90°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	230-280°C
Build Plate Temp.	80-100°C
Build Plate Material	Glass、PEI、Steel Spring Build Plate
Bottom Layer Printing Temp.	/
Enclosed-chamber Printing	Support open printing / Enclosed printing provides better results
Print Speed	60-200mm/s
Drying recommendations	60°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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