

EP061001NC001-TDS

COCOON ABS-Vine

It is a high toughness ABS material, which can effectively resist external impacts, it has high heat distortion temperature, and good stability performance in high-temperature environments. The material has good fluidity and is easy for printing. The excellent mechanical and thermal properties of this material provide reliable support for the material to be widely used in the manufacturing of automotive parts, white goods, consumer electronics and toys for educational use.

Part 1 Injection-Molded Specimen Performance

| Testing Items | Testing Conditions | Testing Methods | Units | Typical Values |
|--------------------------|--------------------|-----------------|-------------------|----------------|
| Physical Properties | | | | |
| Density | 23°C | GB/T 1033 | g/cm ³ | 1.05 |
| Melt Flow Rate | 230°C, 10kg | GB/T 3682 | g/10min | 17 |
| Mechanical Properties | | | | |
| Tensile Strength | 50mm/min | GB/T 1040.2 | MPa | 50 |
| Elongation @ Break | 50mm/min | GB/T 1040.2 | % | 60 |
| Flexural Strength | 2mm/min | GB/T 9341 | MPa | 85 |
| Flexural Modulus | 2mm/min | GB/T 9341 | MPa | 2650 |
| Impact Strength, Notched | 2.75J | GB/T 1843 | kJ/m ² | 25 |
| Thermal Property | | | | |
| HDT | 1.8MPa | GB/T 1634 | °C | 90 |

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 | GB/T 1040.2 | MPa | 48 |
| Tensile Strength(Z) | 50mm/min | GB/T 1040.2 | MPa | 21 |
| Flexural Strength | 2mm/min | GB/T 9341 | MPa | 67 |
| Impact Strength, Notched | 2.75J | GB/T 1843 | kJ/m ² | 32 |

Note: All specimens are printed under the following conditions: nozzle temperature = 250°C, printing speed = 100 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 | 230-260°C |
| Build Plate Temp. | 80-100°C |
| Build Plate Material | Glass、PEI、 Steel Spring Build Plate |
| Bottom Layer Printing Temp. | / |
| Enclosed-chamber Printing | yes |
| Print Speed | 60-150mm/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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