

EP061010NC001-TDS

COCOON ABS-Vine(HS)

It is high-toughness ABS filaments supporting high-speed printing. With high fluidity and low heat capacity, it can realize the rapid melting and cooling of the material, effectively maintaining the details of the effect of high-speed printing. Printing speed in high-speed printers can reach a maximum of 500mm/s, in the play of the excellent mechanical properties of the ABS and reliable dimensional stability at the same time taking into account the efficiency and quality for the rapid manufacture of functional parts. It provides dedicated support for rapid manufacturing of functional components and auxiliary fixtures.

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 | 1.05 |
| Mechanical Properties | | | | |
| Tensile Strength | 5mm/min | ISO 527-1 | MPa | 38 |
| Elongation @ Break | 5mm/min | ISO 527-1 | % | 15 |
| Flexural Strength | 2mm/min | ISO 178 | MPa | 55 |
| Flexural Modulus | 2mm/min | ISO 178 | MPa | 2200 |
| Impact Strength, Notched | 1J | ISO 179-1 | kJ/m ² | 20 |
| Thermal Property | | | | |
| Heat Deflection Temperature | 1.8MPa | ISO 75-1 | °C | 68 |

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 | 41 |
| Tensile Strength(Z) | 50mm/min | ISO 527-1 | MPa | 24 |
| Flexural Strength | 2mm/min | ISO 178 | MPa | 49 |
| Impact Strength, Notched | 2.75J | ISO 179-1 | kJ/m2 | 18 |
| Thermal Property | | | | |
| Heat Deflection Temperature | 0.45MPa | ISO 75-1 | °C | 75 |

Note: All specimens are printed under the following conditions: nozzle temperature = 280°C, printing speed = 300 mm/s, build plate temperature=85°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 | 260-290°C |
| Build Plate Temp. | 80-90°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 | 100-500mm/s |
| Drying recommendations | 60-70°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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