

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
Melt Flow Rate	220°C,10kg	ISO 1133	g/10min	75
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

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/m ²	18

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.

Each user is responsible for determining the safety, legality, technical suitability, and disposal/recycling of the intended use. Unless otherwise stated, POLYFUL makes no warranties of any kind, express or implied, regarding the suitability of its materials for any use or application. POLYFUL shall not be liable for any damages, injuries, or losses caused by the use of POLYFUL materials in any application.