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/cm3	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/m2	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/m2	27
Thermal Property				
Heat Deflection Temperature	0.45MPa	ISO 75-1	℃	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