EP066305NC001-TDS

COCOON ABS-Fir(FR)

It is a thermoplastic engineering material with flame-retardance. The high impact strength and strong interlayer adhesion make it an ideal material in printing plastic components of industrial machinery. The material fulfills flame retardancy according to UL 94 V-0 (@1.6mm), and it also has good mechanical and thermal properties.

Part 1 Injection-Molded Specimen Performance

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	GB/T 1033	g/cm3	1.1
Melt Flow Rate	230°C，2.16kg	GB/T 3682	g/10min	27
Mechanical Properties				
Tensile Strength	50mm/min	GB/T 1040.2	MPa	45
Elongation @ Break	50mm/min	GB/T 1040.2	%	40
Flexural Strength	2mm/min	GB/T 9341	MPa	70
Flexural Modulus	2mm/min	GB/T 9341	MPa	2400
Izod Impact Strength	2.75J	GB/T 1843	kJ/m2	13
Flame-retardant Property				
Flame Class Rating	1.6mm	UL94	/	V0

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	41
Tensile Strength(Z)	50mm/min	GB/T 1040.2	MPa	23
Flexural Strength	2mm/min	GB/T 9341	MPa	71
Flexural Modulus	2mm/min	GB/T 9341	MPa	2266
Impact Strength, Notched	2.75J	GB/T 1843	kJ/m2	16

Note: All specimens are printed under the following conditions: nozzle temperature = 250°C, printing speed = 60 mm/s, t 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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