

EP011001NC001-TDS

COCOON PP-Especial

COCOON PP-Especial is a flexible 3D printing filament based on polypropylene (PP) with Shore A hardness of 85. It boasts exceptional processing capabilities, making it easier to extrude and print compared to other materials of the same hardness. The printed parts exhibit dimensionally stable, low warping and shrinkage, as well as strong interlayer adhesion. The printed parts are lightweight, low-density, high-toughness, high-elastic, and fatigue-resistant. They are also soft and skin-friendly, providing a comfortable touch. Additionally, it has excellent resistance to chemicals, weathering, high and low temperatures. It is suitable for 3D printing applications that require both toughness and strength, as well as texture and durability, such as medical fixation braces, industrial cushioning pads, and everyday protective covers.

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 | 0.9 |
| Melt Volume Rate | 230°C, 2.16kg | GB/T 3682 | g/10min | 15 |
| Shore A | 23°C | GB/T 6031 | Shore A | 85 |
| Mechanical Properties | | | | |
| Tensile Strength | 500mm/min | GB/T 1040.2 | MPa | 10 |
| Elongation @ Break | 500mm/min | GB/T 1040.2 | % | 450 |
| Stress at 100 % Elongation | 500mm/min | GB/T 1040.2 | MPa | 5.5 |
| Stress at 300 % Elongation | 500mm/min | GB/T 1040.2 | MPa | 8 |
| Tear Strength | 500mm/min | GB/T 529 | kN/m | 60 |

Note: The typical physical properties are not intended for use as sales specifications.

Part 2 Printing Guidelines

| Parameters | Settings |
|-----------------------------|---|
| Nozzle Temperature | 235-260°C, recommended 250°C |
| Build Plate Temp. | Not heated |
| Build Plate Material | Specialized build plate from JIANYU |
| Bottom Layer Printing Temp. | 250°C |
| Enclosed-chamber Printing | Support open printing / Enclosed printing provides better results |
| Print Speed | 60-100mm/s |
| Drying recommendations | 80 °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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