

## EP071010NC001-TDS

# COCOON ASA-Vine(HS)

It is a high-speed printing ASA material with a maximum printing speed of 300mm/s and supports open printing. It offers high fluidity, enabling easy printing while maintaining fine details and smooth surfaces even at high speeds. The printed components exhibit excellent impact resistance, weather resistance, anti-yellowing, aging resistance, as well as good anti-cracking and warping resistance. They are durable and suitable for end products with specific weather resistance requirements such as automotive interior parts, garden furniture, and outdoor leisure buildings.

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   | 1.06           |
| Melt Volume Rate      | 220°C, 10kg        | GB/T 3682       | g/10min | 35             |
| Mechanical Properties |                    |                 |         |                |
| Tensile Strength      | 5mm/min            | GB/T 1040.2     | MPa     | 40             |
| Elongation @ Break    | 5mm/min            | GB/T 1040.2     | %       | 20             |
| Flexural Strength     | 2mm/min            | GB/T 9341       | MPa     | 60             |
| Flexural Modulus      | 2mm/min            | GB/T 9341       | MPa     | 2200           |
| Izod Impact Strength  | 1J                 | GB/T 1843       | kJ/m2   | 25             |

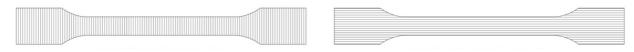
Note: The typical physical properties are not intended for use as sales specifications.



### **Part 2 Printed Specimen Performance**

| Testing Items            | Testing<br>Conditions | Testing Methods | Units | Typical Values |
|--------------------------|-----------------------|-----------------|-------|----------------|
| Mechanical Properties    |                       |                 |       |                |
| Tensile Strength(X-Y)    | 50mm/min              | GB/T 1040.2     | MPa   | 40             |
| Tensile Modulus(X-Y)     | 50mm/min              | GB/T 1040.2     | MPa   | 1900           |
| Tensile Strength(Z)      | 50mm/min              | GB/T 1040.2     | MPa   | 23             |
| Tensile Modulus(Z)       | 50mm/min              | GB/T 1040.2     | MPa   | 1700           |
| Flexural Strength        | 2mm/min               | GB/T 9341       | MPa   | 52             |
| Flexural Modulus         | 2mm/min               | GB/T 9341       | MPa   | 2000           |
| Impact Strength, Notched | 2.75J                 | GB/T 1843       | kJ/m2 | 30             |
| Thermal Property         |                       |                 |       |                |
| HDT                      | 0.45MPa               | GB/T 1634       | °C    | 90             |

Note: All specimens are printed under the following conditions: nozzle temperature =  $270^{\circ}$ C, printing speed = 200 mm/s, build plate temperature= $90^{\circ}$ 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          | 270°C                                     |  |
| Build Plate Temp.           | 90°C                                      |  |
| Build Plate Material        | Glass、PEI、Steel Spring Build Plate        |  |
| Bottom Layer Printing Temp. | 270°C                                     |  |
| Enclosed-chamber Printing   | Support open printing / Enclosed printing |  |





|                        | provides better results             |  |
|------------------------|-------------------------------------|--|
| Print Speed            | 100-300mm/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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