

# Technical Data Sheet (TDS)

## Galaxy PLA

Eryone Galaxy PLA filament is a material with a sparkling surface, offering a cool and fresh appearance. It is perfect for everyday crafts and model toys, providing high playability and a shimmering effect. This product is developed based on PLA material, making the forming process very simple and convenient.

### Part I: Suggests Printing Parameters

| Parameter                   | Set up                         |
|-----------------------------|--------------------------------|
| Nozzle temperature          | 190°C-220°C                    |
| Bed temperature             | 55-70°C                        |
| Bed material                | glass, PEI, spring steel plate |
| Bottom printing temperature | 190°C-220°C                    |
| Sealed printing             | Open Printing/closed printing  |
| Printing speed              | 30-60mm/s                      |
| Drying conditions           | 65°C-75°C, 12H                 |

### Part II: Physical Properties of Materials

| Property                               | Testing Method                  | Unit              | Typical Value |
|--|---------------------------------|-------------------|---------------|
| Density(g/cm <sup>3</sup> at 21.5 ° C) | ASTM D792 (ISO 1183, GB/T 1033) | g/cm <sup>3</sup> | 1.23          |
| Vicat Softening Temperature(° C)       | ASTM D1525 (ISO 306 GB/T 1633)  | °C                | 54            |
| Glass transition temperature (° C)     | DSC, 10 ° C/min                 | °C                | 63            |
| Heat distortion temperature(° C)       | ASTM D648 1.8MPa 0.45MPa        | °C                | 53            |
| Melt Index(g/10 min)                   | 220 ° C, 10kg 240 ° C, 2.16 kg  | g/10min           | 6             |

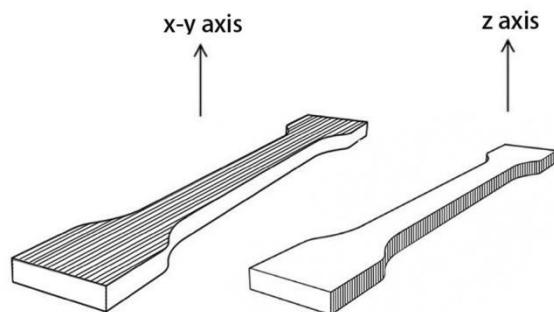
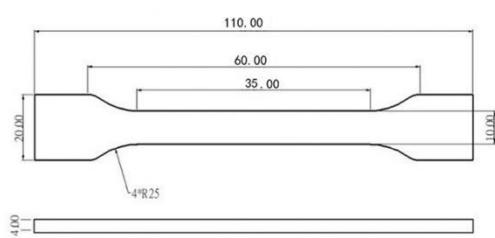
### Part III: Mechanical Properties of Printed Samples

| Property                | Test conditions | Test standards   | unit              | Typical Value |
|-------------------------|-----------------|------------------|-------------------|---------------|
| Tensile strength X-Y    | 50mm/min        | GB/T 1040.4      | MPa               | 54.2          |
| Elastic modulus X-Y     | 50mm/min        | GB/T 1040.1-2006 | MPa               | 2034.5        |
| Elongation at break X-Y | 50mm/min        | GB/T 1040.4      | %                 | 2.1           |
| Tensile strength X-Z    | 50mm/min        | GB/T 1843        | MPa               | 27.8          |
| Elastic modulus X-Z     | 50mm/min        | GB/T 1040.1-2006 | MPa               | 1872.8        |
| Elongation at break X-Z | 50mm/min        | GB/T 1040.4      | %                 | 1.9           |
| Bending strength        | 2mm/min         | GB/T 9341        | MPa               | 78.7          |
| Bending modulus         | 2mm/min         | GB/T 9341        | MPa               | 2568.9        |
| Charpy Impact strength  | 2.75J           | GB/T 1843        | kJ/m <sup>2</sup> | 2.8           |

**Note:** All splines are printed under the following conditions: printing temperature=210° C, printing speed=80mm/s, base plate 60 ° C, filling=100%, nozzle diameter=0.4mm

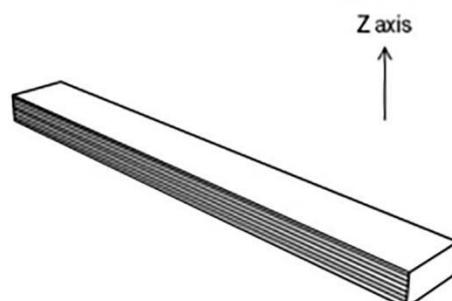
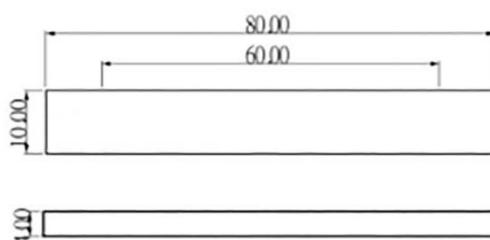
## TENSILE TESTING SPECIMEN

ISO 527,GB/T 1040



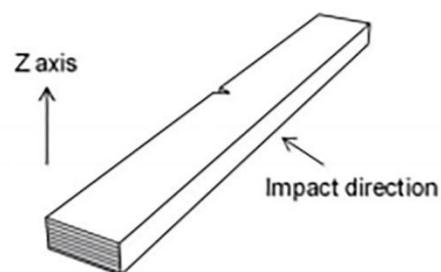
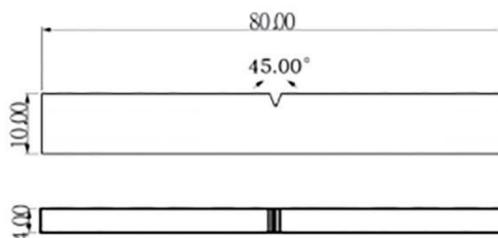
## FLEXURAL TESTING SPECIMEN

ISO 178,GB/T 9341



## IMPACT TESTING SPECIMEN

ISO 179,GB/T 1043



## Disclaimers

The values given in this data table are for reference and comparison only. They should not be used for design specifications or quality control. The actual value may vary depending on the printing conditions. The final performance of printed components depends not only on the material, but also on the component design, environmental conditions, printing conditions, and so on. Product specifications are subject to change without prior notice.