

## Raise3D Industrial PETG ESD Technical Data Sheet

Raise3D Industrial PETG ESD filament is an electrostatic discharges (ESD) safe filament based on PETG (Poly (ethylene terephthalate-co-1,4-cyclohexylenedimethylene terephthalate)). This material can be applied in certain special areas, where require electrostatic discharge protection. It's suitable for Semi-conductor industry, Housing and casing for electrical appliances.

### Filament Specs

Property	Testing Method	Roundnes Typical Value s
Density (g/cm <sup>3</sup> at 21.5 °C)	ASTM D792 (ISO 1183, GB/T 1033)	1.25
Heat Deflection Temperature (°C)	ISO75 1.8MPa	72
	ISO75 0.45 MPa	76
Melt index (g/10 min)	230 °C, 3.8 kg	3.6
Moisture content (%)	Thermogravimetric	≤%
Odor	/	Almost odorless
Solubility	/	Insoluble in water
Surface resistance(Ω)	ASTM D4496	10 <sup>8</sup>

### Mechanical Properties

Property	Testing Method	Typical value
Young's modulus (X-Y)	ISO 527, GB/T 1040	1655± 94 MPa
Young's modulus (Z)	ISO 527, GB/T 1040	1930 ± 213 MPa
Tensile strength (X-Y)	ISO 527, GB/T 1040	29.4 ± 1.2 MPa
Tensile strength (Z)	ISO 527, GB/T 1040	27.64±0.82 MPa
Elongation at break (X-Y)	ISO 527, GB/T 1040	5.91 ± 0.54 %
Elongation at break (Z)	ISO 527, GB/T 1040	1.96 ± 0.06%

*All testing specimens were printed under the following conditions: nozzle temperature = 245 °C, printing speed = 45 mm/s, build plate temperature = 80 °C, infill = 100%.*



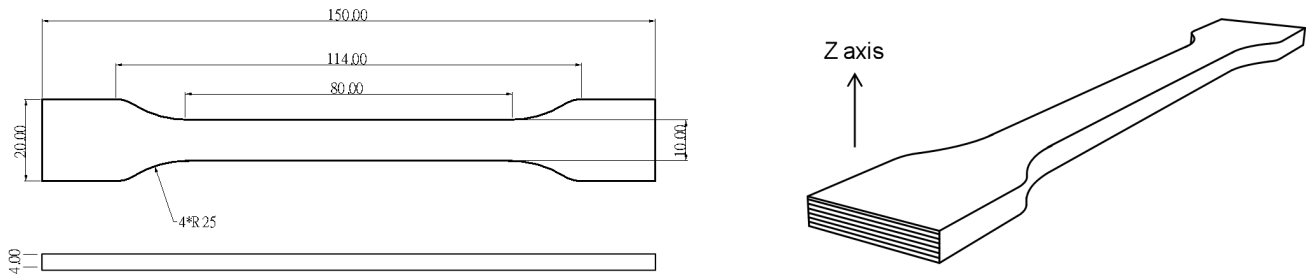


Fig 1. Tensile testing specimen

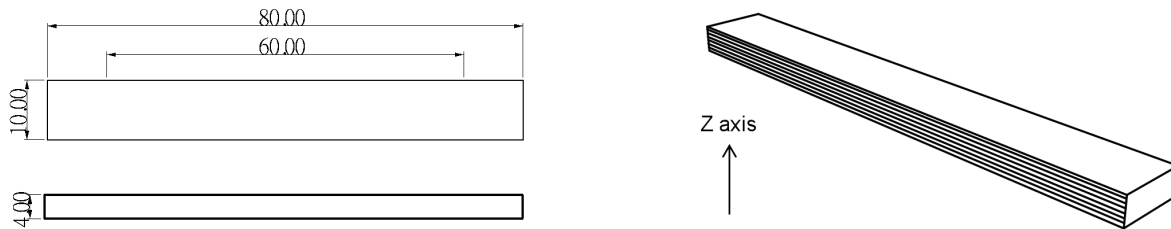


Fig 1. Flexural testing specimen

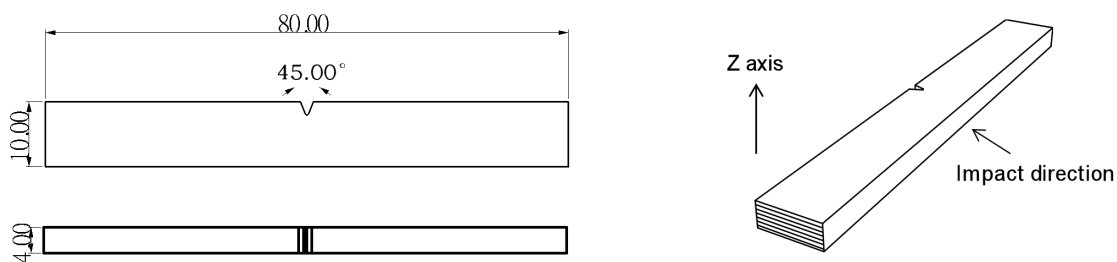


Fig 1. Impact testing specimen

**Disclaimer**

The typical values presented in this data sheet are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End-use performance of printed parts depends not only on materials, but also on part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

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