

Raise3D Premium TPU-95A Technical Data Sheet

Raise3D Premium TPU-95A (Thermoplastic polyurethane) is a flexible and elastic 3D printing filament. Its rubber-like elasticity, resilience, and durability make it suitable for uses requiring impact-absorption and a soft-touch surface. TPU-95A printed parts are widely used in applications such as insoles, tubes, seals, and bushings.

Physical Properties

Property	Testing Method	Typical Value
Density (g/cm ³)	ISO 1183 (at 21.5 °C)	1.20 - 1.24
Melt index (g/10 min)	ISO 1133 (210 °C, 1.2 kg)	3 - 6
Moisture content ¹ (%)	Thermogravimetric	≤ 0.1%
Odor	/	Almost odorless
Solubility	/	Insoluble in water

1. For newly opened filaments; filaments may absorb higher levels of moisture during use.

Mechanical Properties¹

Property	Testing Method	Typical Value
Young's modulus (MPa)	ISO 37	9.5 ± 0.4
Tensile strength (MPa)	ISO 37	29.3 ± 2.8
Elongation at break (%)	ISO 37	330 ± 15
Shore Hardness	ISO 7619	95A

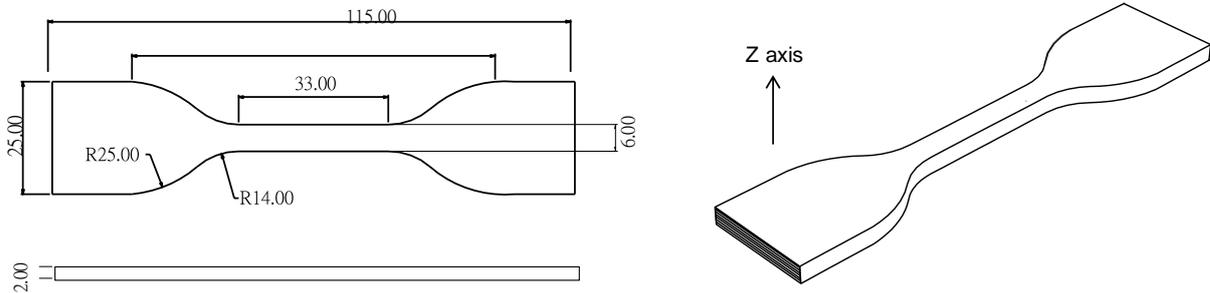
1. All testing specimens were printed using a Raise3D Pro 2 under the following conditions:

Printing temperature = 255 °C, printing speed = 30 mm/s, number of shells = 2, and 100% infill.

All specimens were conditioned at room temperature for 24h prior to testing.



Testing Geometries



Tensile testing specimen; ISO 37

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.

Each user is responsible for determining the safety, lawfulness, technical suitability, and disposal/recycling practices of Raise3D materials for the intended application. Raise3D makes no warranty of any kind, unless announced separately, to the fitness for any particular use or application. Raise3D shall not be made liable for any damage, injury or loss induced from the use of Raise3D materials in any particular application.

