PolyFlex™

Technical Data Sheet

PolyFlex™ is a highly flexible yet easy to print 3D printing material. Featuring good elasticity and a large strain-to-failure, PolyFlex™ opens up a completely new realm of applications.

Physical Properties

Property	Testing Method	Typical Value
Density (g/cm^3 at 21.5 °C)	ASTM D792 (ISO 1183, GB/T 1033)	1.17 - 1.24
Glass transition temperature (°C)	DSC, 10 °C/min	Not available
Softening temperature of filament (for 1.75 mm; °C)	Custom method	Not available
Melt index (g/10 min)	210 °C, 1.2 kg	10 - 12
Moisture content[1] (%)	Thermogravimetric	≤ 0.1%
Odor	/	Almost odorless
Solubility	/	Insoluble in water

Note:

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

Mechanical Properties[1]

Property	Testing Method	Typical Value
Shore A hardness	ASTM D2240 (ISO 7619, GB/T 531)	~ 95A
100% modulus (MPa)	ASTM D412 (ISO 37, GB/T 528)	9.4 ± 0.3
Tensile strength (MPa)	ASTM D412 (ISO 37, GB/T 528)	29.0 ± 2.8
Elongation at break (%)	ASTM D412 (ISO 37, GB/T 528)	330.1 ± 14.9

Note:

1. All testing specimens were printed using a MakerBot Replicator 2 under the following conditions:
Printing temperature = 225 °C, printing speed = 90 mm/s, number of shells = 2, and 100% infill.

Testing Geometries

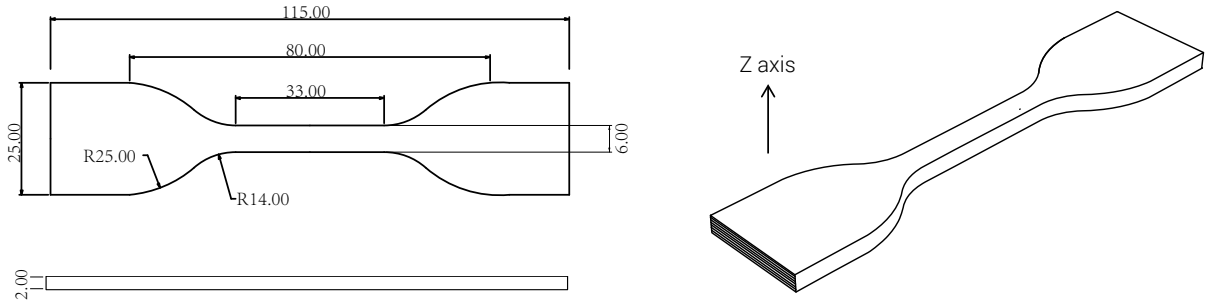

Fig 1. Tensile testing specimen

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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