

Physical Properties	Testing Method	Typical Value
Density	ASTM D792 (ISO 1183, GB/T 1033)	1.19 - 1.20 g/cm <sup>3</sup> at 21.5 ° C
Glass Transition Temperature	DSC, 10 ° C/min	112 ° C
Softening Temperature	Custom method	129 - 132 ° C
Melt Index	300 ° C, 1.2 kg	32 - 35 g/10 min
Moisture Content <sup>1</sup>	Thermogravimetric	≤ 0.1%
Odor	/	Almost odorless
Solubility	/	Insoluble in water

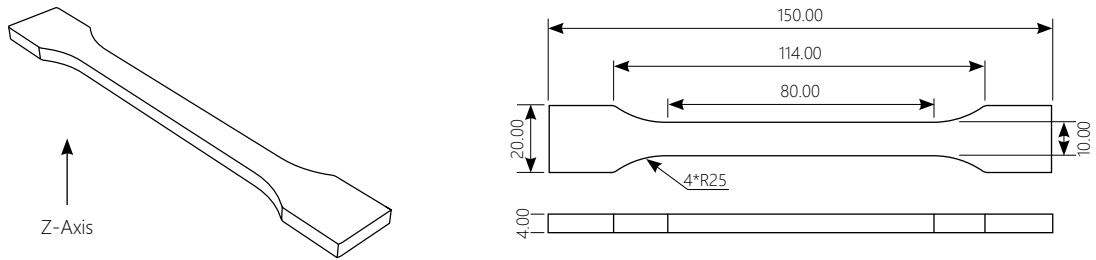
Mechanical Properties <sup>2</sup>	Testing Method	Typical Value
Young's Modulus	ASTM D638 (ISO 527, GB/T 1040)	2307 ± 60 MPa
Tensile Strength	ASTM D638 (ISO527, GB/T 1040)	62.7 ± 1.3 MPa
Elongation at Break	ASTM D638 (ISO527, GB/T 1040)	3.15 ± 0.35%
Bending Modulus	ASTM D790 (ISO 178, GB/T 9341)	2477 ± 159 MPa
Bending Strength	ASTM D790 (ISO 178, GB/T 9341)	100.4 ± 2.7 MPa
Impact Strength	ASTM D256 (ISO 179, GB/T 1043)	3.41 ± 0.07 kJ/m <sup>2</sup>

Notes:

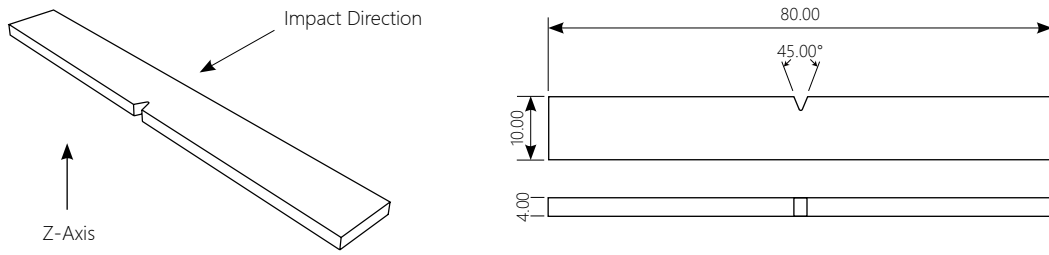
1. It was tested with newly opened materials. Materials may absorb more moisture during usage.
2. All test pieces were printed with a Mankati E180 3D printer under the following conditions: nozzle temperature at 255 ° C, printing speed at 60 mm/s, 2 shells, and 100% infill.

**Specimens**

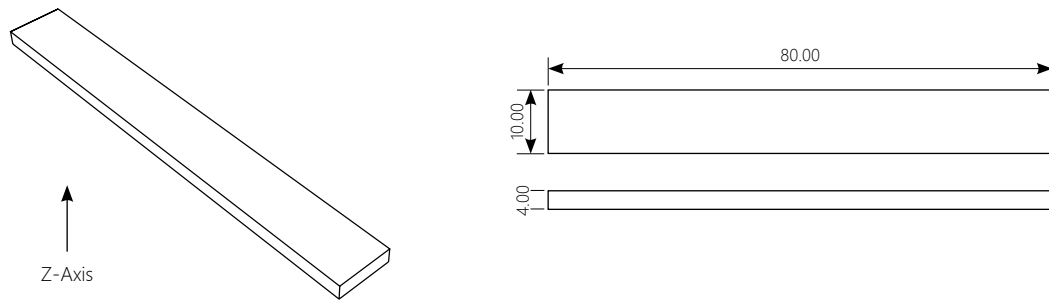
**Fig 1. Tensile testing specimen**



**Fig 2. Impact testing specimen**



**Fig 3. Flexural 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. Enduse performance of printed parts depends not only on materials, but also on part design, environmental conditions, printing conditions, test 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 Mankati materials for the intended application. Mankati makes no warranty of any kind, unless announced separately, to the fitness for any particular use or application. Mankati shall not be made liable for any damage, injury or loss induced from the use of Mankati materials in any particular application, as well as for identifying the proper disposal (or recycling) method consistent with applicable environmental laws and regulations.

