

| Physical Properties           | Testing Method                  | Typical Value                             |
|-------------------------------|---------------------------------|---|
| Density                       | ASTM D792 (ISO 1183, GB/T 1033) | 1.10 - 1.15 g/cm <sup>3</sup> at 21.5 ° C |
| Glass Transition Temperature  | DSC, 10 ° C/min                 | 98.1 ° C                                  |
| Softening Temperature         | Custom method                   | 100 - 110 ° C                             |
| Melt Index                    | 190 ° C, 2.16 kg                | 9 - 14 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) | 2174 ± 285 MPa               |
| Tensile Strength                   | ASTM D638 (ISO527, GB/T 1040)  | 33.3 ± 0.8 MPa               |
| Elongation at Break                | ASTM D638 (ISO527, GB/T 1040)  | 2.7 ± 0.4%                   |
| Bending Modulus                    | ASTM D790 (ISO 178, GB/T 9341) | 1339 ± 238 MPa               |
| Bending Strength                   | ASTM D790 (ISO 178, GB/T 9341) | 59.0 ± 1.3 MPa               |
| Impact Strength                    | ASTM D256 (ISO 179, GB/T 1043) | 12.6 ± 1.1 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 260 ° C, printing speed at 60 mm/s, 2 shells, and 100% infill.

Specimens

Fig 1. Tensile testing specimen

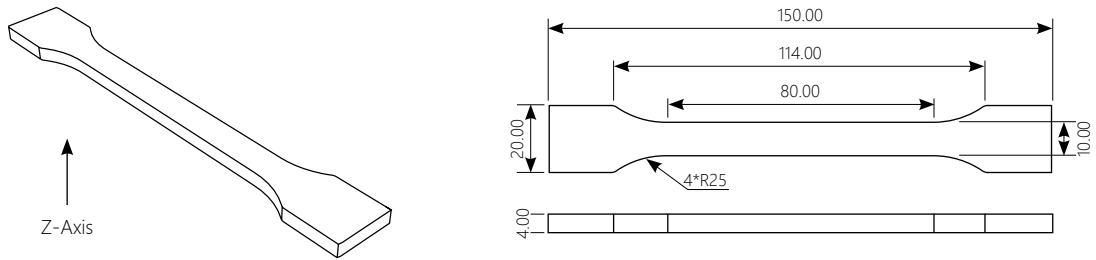


Fig 2. Impact testing specimen

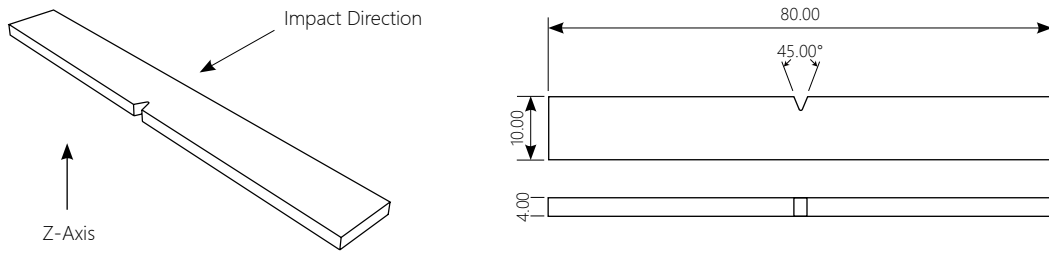
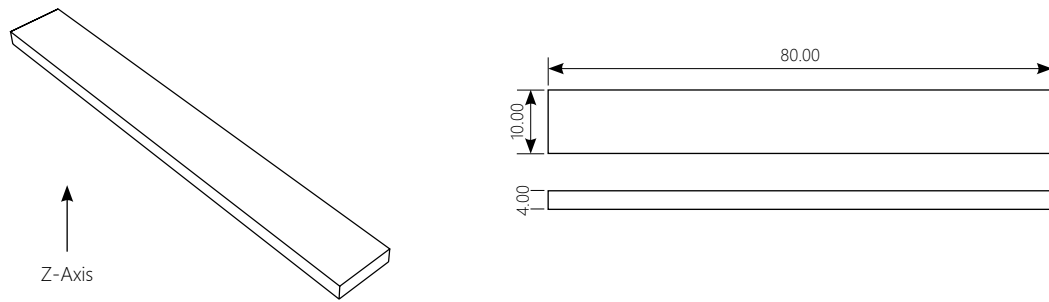


Fig 3. Flexural testing specimen



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.

