Polylactide (PLA)

Polylactide, also known as Polylactic Acid, is a thermoplastic synthesized from organic sugars. PLA has become the most common material for 3D filaments due to its eco-friendliness and ease of use. PLA maintains several desirable properties for 3D printing such as a low melting temperature and glass transition temperature. As a result, PLA offers a high level of detail and exceptional print quality.

### Mechanical Properties

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Tensile Strength @ Break, PSI</th>
<th>Yield Strength, PSI</th>
<th>Tensile Elongation, %</th>
<th>Notched Izod Impact, ft-lb/in</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM D638</td>
<td>7700</td>
<td>8700</td>
<td>6.0</td>
<td>0.3</td>
</tr>
</tbody>
</table>

### Size Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Outer Diameter, mm</td>
<td>1.75/2.88</td>
</tr>
<tr>
<td>OD Tolerance, mm</td>
<td>±0.05</td>
</tr>
<tr>
<td>Ovality, mm</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

### Applications

- General purpose 3D printing
- Fine detail prints
- Applications where strength is not critical

### Recommended Printer Settings

- Extruder Temperature: 190-230 °C
- Printing Speed: 50-90+ mm/s
- Bed Temperature: 60-70 °C
- Bed Adhesion: Blue Painters Tape

### Additional Information

- Sizes Available: 1.75/2.88mm
- (Custom Sizes Available)
- Custom packaging methods available upon request
- Spool Weight: 1 kg (2.2 lbs.)
- (Custom Sizes Available)
- All filaments are sealed with desiccants

### Regulatory Compliance

- RoHS
- REACH
- California Proposition 65

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