

# ProtoPasta HTPLA Tangerine Orange PLA Orange

MaterialID MAT0067



3DPiceland Labs  
Generated with 3DPiceland Engineering Platform v60.0.6  
WORKFLOW-RELIABILITY - Bug Fixes and Workflow  
Reliability  
2026-08-25 19:04:35

**Traceability boundary:** canonical per-module measured dates are shown below. Session identifier, time of day, operator, printer/slicer profile and environmental conditions are Not recorded and are never inferred.

## Measurement provenance

Canonical SQLite measured dates use ISO format; missing dates remain Not recorded.

| Module    | Measured date |
|-----------|---------------|
| Tensile   | Not recorded  |
| Impact    | Not recorded  |
| Stiffness | Not recorded  |

|                    |                       |                                  |                            |
|--------------------|-----------------------|----------------------------------|----------------------------|
| Status<br>Complete | Result modules<br>3/3 | Specimen/result<br>records<br>41 | Public details<br>Approved |
|--------------------|-----------------------|----------------------------------|----------------------------|

## Specimen and result quality

| Module  | Orientation | Average    | Std. dev. | CV     | Specimens | Confidence | Validation |
|---------|-------------|------------|-----------|--------|-----------|------------|------------|
| Tensile | Upright     | 13,935 MPa | 5,599 MPa | 0,402% | 10        | 10/10      | OK         |
| Tensile | Flat        | 44,097 MPa | 6,582 MPa | 0,149% | 10        | 10/10      | OK         |

| Module    | Orientation      | Average                   | Std. dev.                | CV     | Specimens | Confidence | Validation |
|-----------|------------------|---------------------------|--------------------------|--------|-----------|------------|------------|
| Impact    | Upright          | 174,194 kJ/m <sup>2</sup> | 25,904 kJ/m <sup>2</sup> | 0,149% | 10        | 10/10      | OK         |
| Impact    | Flat             | 259,202 kJ/m <sup>2</sup> | 12,323 kJ/m <sup>2</sup> | 0,048% | 10        | 10/10      | OK         |
| Stiffness | Three-point bend | 2928,765 MPa              | n/a                      | n/a    | 1         | Complete   | OK         |

## Recorded native inputs

| Module    | Input set                 | Recorded values                                                      |
|-----------|---------------------------|----------------------------------------------------------------------|
| Tensile   | Upright force inputs (N)  | 103, 83, 125, 138, 101, 112, 43, 38, 117, 46                         |
| Tensile   | Flat force inputs (N)     | 339, 307, 205, 329, 244, 297, 309, 267, 253, 317                     |
| Impact    | Upright needle inputs (%) | 10,00, 11,00, 11,00, 10,00, 8,00, 11,00, 7,50, 11,00, 11,00, 12,50   |
| Impact    | Flat needle inputs (%)    | 15,00, 15,00, 17,00, 15,00, 15,00, 14,50, 15,00, 15,00, 16,00, 15,00 |
| Stiffness | Revolutions / degrees     | 1 / 270                                                              |

## Approved test notes

## Method and equipment context

Purpose-built tensile, pendulum impact and three-point bend apparatus are used with the governed Settings Manager constants consumed by ResultsService. Results are comparative and do not claim accredited-laboratory equipment.

[Testing methodology](#) · [Engineering methodology whitepaper](#) · [Download PDF](#)

reports/test-sessions/MAT0067/