

Bedrock 3D Standard Natural PET Natural

MaterialID MAT0252



3DPiceland Labs
Generated with 3DPiceland Engineering Platform v70.0.4
DIRECT-IMPACT-METHODOLOGY - Izod and Charpy
Methodology
2026-10-04 18:10:39

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	2026-09-11
Impact	2026-09-11
Izod	2026-09-29
Charpy	2026-09-29
Stiffness	2026-09-11

Rigid test status
Complete

Rigid result
modules
6/6

Rigid
specimen/result
records
34

Public details
Approved

Rigid specimen and result quality

Module	Orientation	Average	Std. dev.	CV	Specimens	Confidence	Validation
Tensile	Upright	1,23 MPa	0,308 MPa	0,25%	3	3/10	OK

Module	Orientation	Average	Std. dev.	CV	Specimens	Confidence	Validation
Tensile	Flat	31,039 MPa	9,164 MPa	0,295%	10	10/10	OK
Impact	Upright	2,535 kJ/m ²	0,787 kJ/m ²	0,311%	10	10/10	OK
Impact	Flat	4,12 kJ/m ²	0,898 kJ/m ²	0,218%	10	10/10	OK
Stiffness	Three-point bend	2580,591 MPa	n/a	n/a	1	Complete	OK

Recorded native inputs

Module	Input set	Recorded values
Tensile	Upright force inputs (N)	10, 8, 6, , , , , ,
Tensile	Flat force inputs (N)	173, 277, 255, 273, 148, 262, 144, 179, 189, 118
Impact	Upright needle inputs (%)	2, 1,5, 3, 4, 4, 4, 3,5, 3,5, 4, 2
Impact	Flat needle inputs (%)	5, 6,5, 5, 4,5, 6, 4, 5, 7, 4,5, 3,5
Stiffness	Revolutions / degrees	1 / 355

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](#)

Izod and Charpy Impact Strength

Izod Impact Strength · 2026-09-29
Instrument readings in kJ/m²
Mean 1.648 kJ/m²; Std. Dev 0.132 kJ/m²; CV 7.992%; Samples 10; Confidence 10
No break 0; invalid 0; excluded 0.
Comparative measurements; standard conformity unverified.

Charpy Impact Strength · 2026-09-29

Instrument readings in kJ/m^2

Mean 0.841 kJ/m^2 ; Std. Dev 0.28 kJ/m^2 ; CV 33.34%; Samples 10; Confidence 10

No break 0; invalid 0; excluded 0.

Comparative measurements; standard conformity unverified.

[reports/test-sessions/MAT0252/](#)