

Bedrock 3D Standard Black ABS Plus Black

MaterialID MAT0246



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	2026-09-05
Impact	2026-09-11
Izod	2026-09-29
Charpy	2026-09-29
Stiffness	2026-09-05

Rigid test status Complete	Rigid result modules 6/6	Rigid specimen/result records 37	Public details Approved
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Rigid specimen and result quality

Module	Orientation	Average	Std. dev.	CV	Specimens	Confidence	Validation
Tensile	Upright	2,102 MPa	0,581 MPa	0,276%	6	6/10	OK

Module	Orientation	Average	Std. dev.	CV	Specimens	Confidence	Validation
Tensile	Flat	20,841 MPa	4,139 MPa	0,199%	10	10/10	OK
Impact	Upright	5,593 kJ/m ²	1,359 kJ/m ²	0,243%	10	10/10	OK
Impact	Flat	55,276 kJ/m ²	3,658 kJ/m ²	0,066%	10	10/10	OK
Stiffness	Three-point bend	1091,788 MPa	n/a	n/a	1	Complete	OK

Recorded native inputs

Module	Input set	Recorded values
Tensile	Upright force inputs (N)	17, 11, 12, 19, 14, 9, , , ,
Tensile	Flat force inputs (N)	111, 88, 169, 160, 160, 130, 112, 122, 146, 157
Impact	Upright needle inputs (%)	5, 7, 8, 8, 7, 7, 8, 8, 3, 8
Impact	Flat needle inputs (%)	95, 95, 95, 94, 60, 95, 95, 95, 78, 94
Stiffness	Revolutions / degrees	4 / 250

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 65.708 kJ/m²; Std. Dev 9.686 kJ/m²; CV 14.741%; Samples 9; Confidence 9
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 123.714 kJ/m^2 ; Std. Dev 9.88 kJ/m^2 ; CV 7.986%; Samples 10; Confidence 10

No break 0; invalid 0; excluded 0.

Comparative measurements; standard conformity unverified.

[reports/test-sessions/MAT0246/](#)