

PA12 Material Family Comparison



3DP Iceland Labs
Generated with 3DP Iceland Engineering Platform v60.0.6 WORKFLOW-RELIABILITY - Bug Fixes and Workflow Reliability
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Public-data contract: only explicitly allowlisted MaterialIDs and existing Verified Material Summary scores are included. No measurements or scores are recalculated.

Comparison scope: Stable Material Family preset for PA12. Every included MaterialID has explicit Public reports opt-in.

Materials compared
9

Overall score available
9

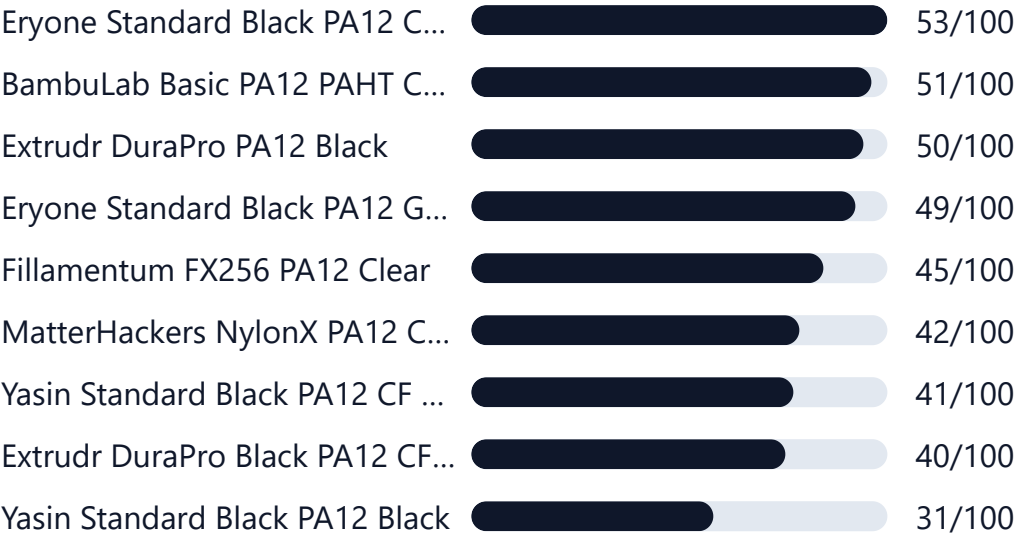
All 6 axes available
9

Engineering-axis leaders in this comparison

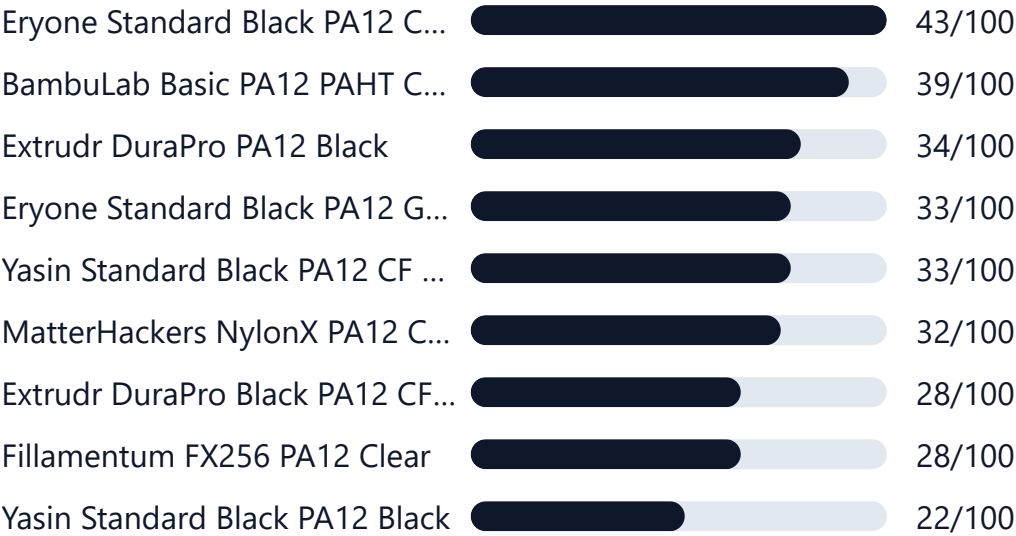
Axis	Leading material	Score
Overall	Eryone Standard Black PA12 CF Black	53
Tensile	Eryone Standard Black PA12 CF Black	43
Impact	Eryone Standard Black PA12 GF Black	67
Stiffness	Eryone Standard Black PA12 CF Black	89
Consistency	Extrudr DuraPro PA12 Black	83

Axis	Leading material	Score
Layer adhesion	Fillamentum FX256 PA12 Clear	54
Thermal	Eryone Standard Black PA12 CF Black	80

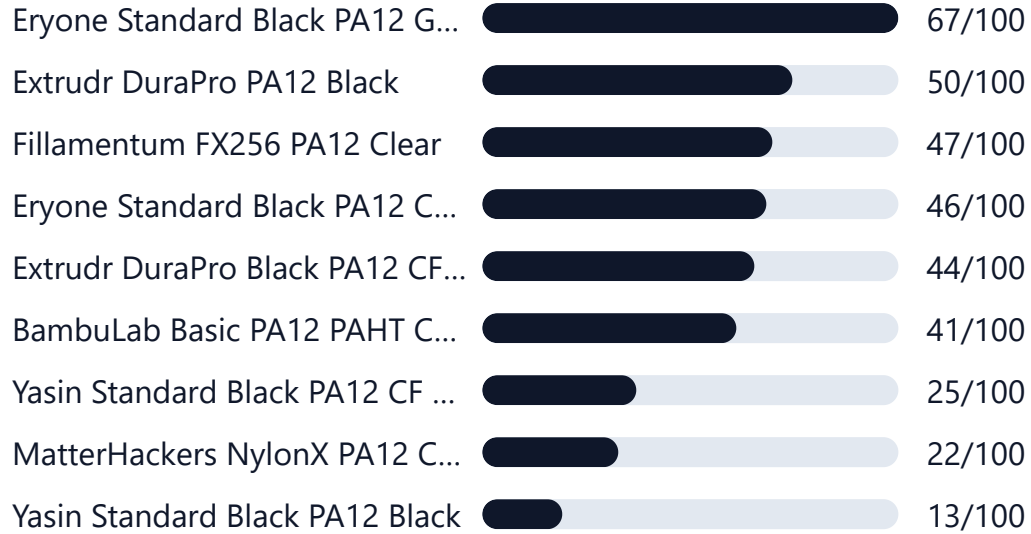
Overall comparison



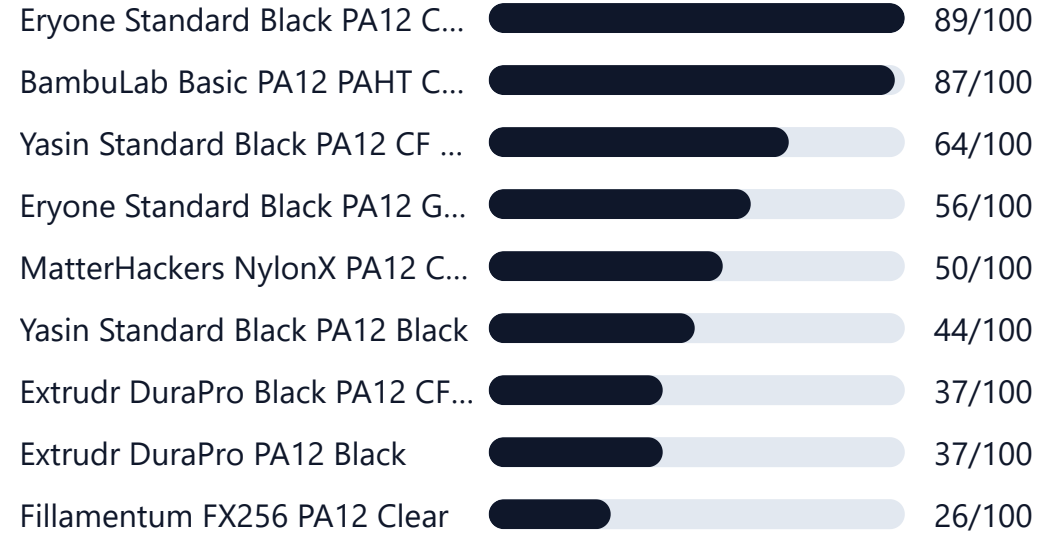
Tensile comparison



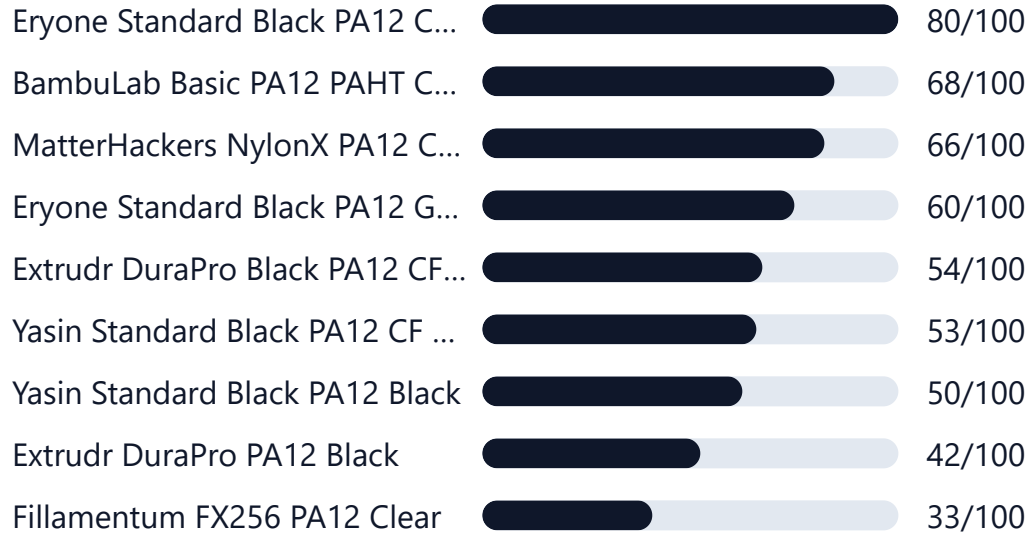
Impact comparison



Stiffness comparison



Thermal comparison



Materials and evidence context

MaterialID	Material	Manufacturer	Product line	Type	Reinforcement	Test coverage	Engineering axes
MAT0214	Eryone Standard Black PA12 CF Black	Eryone	Standard	PA12	CF	Complete	6/6
MAT0167	BambuLab Basic PA12 PAHT CF Black	BambuLab	Basic	PA12	CF	Complete	6/6
MAT0020	Extrudr DuraPro PA12 Black	Extrudr	DuraPro	PA12		Complete	6/6
MAT0209	Eryone Standard Black PA12 GF Black	Eryone	Standard	PA12	GF	Complete	6/6
MAT0022	Fillamentum FX256 PA12 Clear	Fillamentum	FX256	PA12		Complete	6/6
MAT0019	MatterHackers NylonX PA12 CF Black	MatterHackers	NylonX	PA12	CF	Complete	6/6
MAT0239	Yasin Standard Black PA12 CF Black	Yasin	Standard	PA12	CF	Complete	6/6
MAT0196	Extrudr DuraPro Black PA12 CF Black	Extrudr	DuraPro	PA12	CF	Complete	6/6
MAT0021	Yasin Standard Black PA12 Black	Yasin	Standard	PA12		Complete	6/6

Side-by-side engineering scores

MaterialID	Material	Manufacturer	Reinforcement	Coverage	Evidence	Overall	Tensile	Impact	Stiffness	Consistency	Layer adhesion	Thermal	Fixture °C	Method	Thermal limitation	MSRP USD/kg
MAT0214	Eryone Standard Black PA12 CF Black	Eryone	CF	Complete	6/6	53/100	43/100	46/100	89/100	80/100	7/100	80/100	160 °C	3dp-thermal-deflection-fixture-v1	Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPiceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.	\$58.13
MAT0167	BambuLab Basic PA12 PAHT CF Black	BambuLab	CF	Complete	6/6	51/100	39/100	41/100	87/100	79/100	9/100	68/100	136 °C	3dp-thermal-deflection-fixture-v1	Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPiceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.	\$159.84
MAT0020	Extrudr DuraPro PA12 Black	Extrudr		Complete	6/6	50/100	34/100	50/100	37/100	83/100	43/100	42/100	84 °C	3dp-thermal-deflection-fixture-v1	Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPiceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.	\$49.80
MAT0209	Eryone Standard Black PA12 GF Black	Eryone	GF	Complete	6/6	49/100	33/100	67/100	56/100	76/100	10/100	60/100	120 °C	3dp-thermal-deflection-fixture-v1	Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPiceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.	\$40.00
MAT0022	Fillamentum FX256 PA12 Clear	Fillamentum		Complete	6/6	45/100	28/100	47/100	26/100	68/100	54/100	33/100	65 °C	3dp-thermal-deflection-fixture-v1	Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPiceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.	\$46.74
MAT0019	MatterHackers NylonX PA12 CF Black	MatterHackers	CF	Complete	6/6	42/100	32/100	22/100	50/100	71/100	33/100	66/100	131 °C	3dp-thermal-deflection-fixture-v1	Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPiceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.	\$126.00
MAT0239	Yasin Standard Black PA12 CF Black	Yasin	CF	Complete	6/6	41/100	33/100	25/100	64/100	78/100	7/100	53/100	105 °C	3dp-thermal-deflection-fixture-v1	Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPiceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.	\$64.48

MaterialID	Material	Manufacturer	Reinforcement	Coverage	Evidence	Overall	Tensile	Impact	Stiffness	Consistency	Layer adhesion	Thermal	Fixture °C	Method	Thermal limitation	MSRP USD/kg
MAT0196	Extrudr DuraPro Black PA12 CF Black	Extrudr	CF	Complete	6/6	40/100	28/100	44/100	37/100	74/100	16/100	54/100	107 °C	3dp-thermal-deflection-fixture-v1	Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPIceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.	\$76.06
MAT0021	Yasin Standard Black PA12 Black	Yasin		Complete	6/6	31/100	22/100	13/100	44/100	68/100	9/100	50/100	99 °C	3dp-thermal-deflection-fixture-v1	Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPIceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.	\$53.12

Results are comparative 3DPIceland measurements and do not replace manufacturer datasheets or accredited laboratory testing.

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