

PEBA Material Family Comparison



3DP Iceland Labs
Generated with 3DP Iceland Engineering Platform v70.0.4 DIRECT-IMPACT-METHODOLOGY - Izod and Charpy Methodology
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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 PEBA. Every included MaterialID has explicit Public reports opt-in.

Materials compared
2

Overall score available
0

All 8 axes available
0

Engineering-axis leaders in this comparison

Axis	Leading material	Score
Overall	—	n/a
Tensile	—	n/a
Impact	—	n/a
Izod	—	n/a
Charpy	—	n/a

Axis	Leading material	Score
Stiffness	—	n/a
Consistency	—	n/a
Layer adhesion	—	n/a
Thermal	—	n/a

Materials and evidence context

Material ID	Material	Manufacturer	Product line	Type	Reinforcement	Rigid test coverage	Engineering axes
MAT0262	Yasin Standard Blue PEBA Blue	Yasin	Standard	PEBA		No native results; 0/5 score families; Izod/Charpy 0/2 measured, 0/2 scored; Overall unavailable: missing measurements or references; policy engineering-score-v70-1	0/8
MAT0263	Yasin Standard Clear PEBA Clear	Yasin	Standard	PEBA		No native results; 0/5 score families; Izod/Charpy 0/2 measured, 0/2 scored; Overall unavailable: missing measurements or references; policy engineering-score-v70-1	0/8

Side-by-side engineering scores

Material ID	Material	Manufacturer	Reinforcement	Rigid coverage	Evidence	Overall	Tensile	Impact	Izod	Charpy	Stiffness	Consistency	Layer adhesion	Thermal	Fixture °C	Method	Thermal limitation	MSRP USD/kg
MAT0262	Yasin Standard Blue PEBA Blue	Yasin		No native results; 0/5 score families; Izod/Charpy 0/2 measured, 0/2 scored; Overall unavailable: missing measurements or references; policy engineering-score-v70-1	0/8	—	—	—	—	—	—	—	—	—	n/a			\$64.16
MAT0263	Yasin Standard Clear PEBA Clear	Yasin		No native results; 0/5 score families; Izod/Charpy 0/2 measured, 0/2 scored; Overall unavailable: missing measurements or references; policy engineering-score-v70-1	0/8	—	—	—	—	—	—	—	—	—	n/a			\$64.16

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

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

Yasin Standard Blue PEBA Blue

Flexible Material Testing

Comparative in-house measurements; n = independent specimens. Separate test groups; Overall unchanged.

Method	Result	Condition	Mean	n	SD	CV %	Range	Not reached
eaacea91	Apparent Compressive Stress at 20% Strain (MPa)	10 s hold · 2 mm displacement · cycle 1	4.162	10	0.09	2.164	3.961–4.276	0
eaacea91	Apparent Compressive Stress at 20% Strain (MPa)	30 s hold · 2 mm displacement · cycle 1	4.041	10	0.093	2.308	3.835–4.15	0
eaacea91	Compression Force at 20% Strain (N)	10 s hold · 2 mm displacement · cycle 1	264.8	10	5.731	2.164	252–272	0
eaacea91	Compression Force at 20% Strain (N)	30 s hold · 2 mm displacement · cycle 1	257.1	10	5.934	2.308	244–264	0
eaacea91	Force reduction from 10 s to 30 s at 20% Strain (%)	first compression only · 2 mm displacement	2.91	10	0.275	9.452	2.222–3.175	0
eaacea91	Force retention at 20% Strain (%)	10–30 s · 2 mm displacement · cycle 1	97.09	10	0.275	0.283	96.825–97.778	0
eaacea91	Residual height loss after recovery (%)	20% compression · 30 s compressed hold · 60 s rest · 10 mm initial height · cycle 1	2.29	10	0.12	5.228	2.1–2.5	0
ed381ba8	Shore A Hardness (Shore A)	10 s reading · 8 mm	92.74	1	—	—	92.74–92.74	0

Shore location statistics

Within each specimen; specimen numbers are local to each test group. SD uses the sample formula. These readings do not increase independent n.

Method	Scale	Condition	Specimen	Readings	Mean	Location SD	Location CV %
ed381ba8	Shore A Hardness	10 s reading · 8 mm	1	5	92.74	1.436	1.549

Yasin Standard Clear PEBA Clear

Flexible Material Testing

Comparative in-house measurements; n = independent specimens. Separate test groups; Overall unchanged.

Method	Result	Condition	Mean	n	SD	CV %	Range	Not reached
eaacea91	Apparent Compressive Stress at 20% Strain (MPa)	10 s hold · 2 mm displacement · cycle 1	4.345	10	0.07	1.602	4.244–4.448	0

Method	Result	Condition	Mean	n	SD	CV %	Range	Not reached
eaacea91	Apparent Compressive Stress at 20% Strain (MPa)	30 s hold · 2 mm displacement · cycle 1	4.224	10	0.066	1.57	4.134–4.338	0
eaacea91	Compression Force at 20% Strain (N)	10 s hold · 2 mm displacement · cycle 1	276.4	10	4.427	1.602	270–283	0
eaacea91	Compression Force at 20% Strain (N)	30 s hold · 2 mm displacement · cycle 1	268.7	10	4.218	1.57	263–276	0
eaacea91	Force reduction from 10 s to 30 s at 20% Strain (%)	first compression only · 2 mm displacement	2.785	10	0.327	11.754	2.473–3.546	0
eaacea91	Force retention at 20% Strain (%)	10–30 s · 2 mm displacement · cycle 1	97.215	10	0.327	0.337	96.454–97.527	0
eaacea91	Residual height loss after recovery (%)	20% compression · 30 s compressed hold · 60 s rest · 10 mm initial height · cycle 1	2.8	10	0.125	4.454	2.6–3	0
ed381ba8	Shore A Hardness (Shore A)	10 s reading · 8 mm	92.5	1	—	—	92.5–92.5	0
eaacea91	Shore A Hardness (Shore A)	10 s reading · 8 mm	91	1	—	—	91–91	0

Shore location statistics

Within each specimen; specimen numbers are local to each test group. SD uses the sample formula. These readings do not increase independent n.

Method	Scale	Condition	Specimen	Readings	Mean	Location SD	Location CV %
ed381ba8	Shore A Hardness	10 s reading · 8 mm	1	5	92.5	0.5	0.541
eaacea91	Shore A Hardness	10 s reading · 8 mm	1	1	91	—	—

Stable public path: reports/comparisons/material-family-peba/

Score policy engineering-score-v70-1: Overall requires tensile, stiffness, consistency, layer adhesion and the Izod/Charpy impact family, each with equal weight. Both impact methods and configured versioned references are required. Missing results and unconfigured scores remain n/a. Legacy Impact is historical only; thermal remains separate. Engineering-axis counts describe displayed evidence, not Overall completeness.