

RPU 70

RPU 70 is a tough, heat resistant material that is a good choice for parts requiring strength, toughness, and moderate heat resistance.

Tensile Properties —ASTM D638, TYPE V 10MM/MIN	Metric	U.S.
Tensile Modulus	1.90 ± 0.20 GPa	290 ± 30 ksi
Ultimate Tensile Strength	45 ± 2 MPa	6.5 ± 0.3 ksi
Tensile Strength at Yield	45 ± 2 MPa	6.5 ± 0.3 ksi
Elongation at Break	100 ± 20 %	100 ± 20 %

Flexural Properties —ASTM D790	Metric	U.S.
Flexural Strength	62 ± 9 MPa	9.0 ± 1.3 ksi
Flexural Modulus	1.80 ± 0.30 GPa	261 ± 40 ksi

Impact Properties —ASTM D256, ASTM D4812	Metric	U.S.
Notched Izod (machined), ASTM D256	22 ± 1 J/m	0.41 ± 0.02 ft-lb/in.
Unnotched Izod, ASTM D4812	530 ± 30 J/m	9.9 ± 0.5 ft-lb/in.

Thermal Properties	Metric	U.S.
Heat Deflection Temperature @ 0.45 MPa/66 psi, ASTM D648	70 °C	160 °F
Heat Deflection Temperature @ 1.82 MPa/264 psi, ASTM D648	55 °C	130 °F

NOTES—Test specimens were prepared using Carbon M1 printer and a Type B cassette. Print parameters were generated using software v.0.3.0. Tensile data were generated using printed Type V samples (per ASTM D638). All other test specimens were printed following standard ASTM test geometries. All test specimens were printed, cleaned, and post-processed per instructions provided in the Carbon User Manual. Liquid property measurements were carried out using fully mixed resins. Results provided herein are representative of these processes and may vary if these established protocols are not followed.