



RPU 70

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

CarbonResin RPU 70

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TECHNICAL DATA SHEET, LAST UPDATED 08/14/2017

Tensile Properties ASTM D638, Type V 10 mm/min	Metric	U.S.
Tensile Modulus	1900 ± 200 MPa	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 %	

Flexural Properties ASTM D790	Metric	U.S.
Flexural Strength	62 ± 9 MPa	9.0 ± 1.3 ksi
Flexural Modulus	1800 ± 300 MPa	261 ± 40 ksi

Impact Properties	Metric	U.S.
Notched Izod (Machined), 23 °C, ASTM D256	22 ± 1 J/m	0.41 ± 0.02 ft-lb/in
Notched Izod (Machined), -30 °C, ASTM D256	19 ± 4 J/m	0.36 ± 0.07 ft-lb/in
Unnotched Izod, ASTM D4812	530 ± 30 J/m	9.9 ± 0.5 ft-lb/in
Notched Charpy, ISO 179-1/1eA	1.83 ± 0.15 kJ/m ²	0.871 ± 0.071 ft-lb/in ²

Thermal Properties	Metric	U.S.
Heat Deflection Temperature @ 0.455 MPa/66 psi, ASTM D648	70 °C	160 °F
Heat Deflection Temperature @ 1.82 MPa/264 psi, ASTM D648	55 °C	130 °F
Coefficient of Thermal Expansion (-40, 40 °C), ASTM E831	96 ppm/°C	53 ppm/°F
Flammability, UL 94 (1.5 mm)	HB	

General Properties	Metric
Hardness, ASTM D2240	80, Shore D
Density, ASTM D792	1.076 g/cm ³
Density (liquid resin)	1.01 g/cm ³
Water Absorption, 23 °C, 24 hours, ASTM D570	0.31 %
Water Absorption, 23 °C, long term, ASTM D570	1.01 %
Taber Abrasion, ASTM D4060, CS-17, 1 kg, 100 % vacuum	70 mg / 1000 cycles



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