



# RPU 61

RPU 61 is a tough, and abrasion-resistant higher resolution material that is a good choice for parts that require rigidity, strength, and durability.



**CarbonResin RPU 61**

DOC #103212 REV C  
TECHNICAL DATA SHEET, LAST UPDATED 08/14/2017

<b>Tensile Properties</b> ASTM D638, Type V, 10 mm/min	Metric	U.S.
Tensile Modulus	1500 ± 100 MPa	218 ± 15 ksi
Ultimate Tensile Strength	42 ± 3 MPa	6.1 ± 0.4 ksi
Tensile Strength at Yield	40 ± 2 MPa	5.8 ± 0.3 ksi
Elongation at Yield	6 ± 1%	
Elongation at Break	120 ± 10 %	

<b>Flexural Properties</b> ASTM D790	Metric	U.S.
Flexural Strength	37 ± 2 MPa	5.4 ± 0.3 ksi
Flexural Modulus	1100 ± 100 MPa	160 ± 15 ksi

<b>Impact Properties</b>	Metric	U.S.
Notched Izod (Machined), 23 °C, ASTM D256	27 ± 2 J/m	0.51 ± 0.04 ft-lb/in
Notched Izod (Machined), -30 °C, ASTM D256	22 ± 5 J/m	0.41 ± 0.09 ft-lb/in
Unnotched Izod, ASTM D4812	1.2 ± 0.2 kJ/m	22 ± 4 ft-lb/in
Notched Charpy, ISO 179-1/1eA	2.31 ± 0.39 kJ/m <sup>2</sup>	1.10 ± 0.19 ft-lb/in <sup>2</sup>

<b>Thermal Properties</b>	Metric	U.S.
Heat Deflection Temperature @ 0.455 MPa/66 psi, ASTM D648	59 °C	137 °F
Heat Deflection Temperature @ 1.82 MPa/264 psi, ASTM D648	48 °C	119 °F
Coefficient of Thermal Expansion (-40, 40 °C), ASTM E831	99 ppm/°C	55 ppm/°F

<b>Electrical Properties</b> ASTM D150	Metric
Dielectric Constant, 1 MHz	3.10
Dissipation Factor, 1 MHz	0.017

<b>General Properties</b>	Metric
Hardness, ASTM D2240	78, Shore D
Density, ASTM D792	1.074 g/cm <sup>3</sup>
Density (liquid resin)	1.01 g/cm <sup>3</sup>

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