

# Radici Renycle<sup>®</sup> Renycle S GF3004K

Partially recycled PA6 30% glass fiber reinforced injection molding grade. Heat stabilized. Black color. Post industrial grade with low environmental impact compared to top grade material. Suitable for parts requiring medium stiffness and improved mechanical resistance.

Physical Properties	Metric	English	Comments
Density	1.37 g/cc	0.0495 lb/in <sup>3</sup>	DAM; ISO 1183
Water Absorption	7.0 % @Thickness 2.00 mm	7.0 % @Thickness 0.0787 in	DAM. Immersion; ISO 62
Moisture Absorption	2.00 % @Thickness 2.00 mm	2.00 % @Thickness 0.0787 in	Initially DAM, 50% RH; ISO 62

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	82.0 MPa	11900 psi	5mm / min. Conditioned; ISO 527-2/1A
	135 MPa	19600 psi	5mm / min. DAM; ISO 527-2/1A
Elongation at Break	2.6 %	2.6 %	5mm / min. DAM; ISO 527-2/1A
	3.6 %	3.6 %	5mm / min. Conditioned; ISO 527-2/1A
Tensile Modulus	5.40 GPa	783 ksi	1mm / min. Conditioned; ISO 527-2/1A
	9.30 GPa	1350 ksi	1mm / min. DAM; ISO 527-2/1A
Flexural Strength	135 MPa	19600 psi	2mm / min. Conditioned; ISO 178
	210 MPa	30500 psi	2mm / min. DAM; ISO 178
Flexural Modulus	4.70 GPa	682 ksi	2mm / min. Conditioned; ISO 178
	8.40 GPa	1220 ksi	2mm / min. DAM; ISO 178
Charpy Impact Unnotched	5.50 J/cm <sup>2</sup> @Temperature -30.0 °C	26.2 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	DAM; ISO 179/1eU
	7.00 J/cm <sup>2</sup> @Temperature -30.0 °C	33.3 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Conditioned; ISO 179/1eU

Charpy Impact, Notched	0.800 J/cm <sup>2</sup> @Temperature -30.0 °C	3.81 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	DAM; ISO 179/1e/A
	1.20 J/cm <sup>2</sup> @Temperature -30.0 °C	5.71 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Conditioned; ISO 179/1e/A

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	DAM; 500V.; IEC 60093

Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	DAM; 500V.; IEC 60093
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Thermal Properties	Metric	English	Comments
Melting Point	220 °C	428 °F	10°C/min; ISO 11357-1/-3

Deflection Temperature at 0.46 MPa (66 psi)	215 °C	419 °F	ISO 75/2Bf
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Deflection Temperature at 1.8 MPa (264 psi)	190 °C	374 °F	ISO 75/2Af
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Flammability, UL94	HB @Thickness 0.800 mm	HB @Thickness 0.0315 in	
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Processing Properties	Metric	English	Comments
Melt Temperature	260 - 280 °C	500 - 536 °F	Injection Molding

Mold Temperature	80.0 - 90.0 °C	176 - 194 °F	
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#### Descriptive Properties

Injection Molding Injection Speed	Medium - high
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