

**Radilon® S RV500UK 3761 BK**

 Radici Group High Performance Polymers - *Polyamide 6*
**General Information**
**Product Description**

PA6 50% glass fiber reinforced injection moulding grade. Heat stabilized. Improved UV resistance. Black colour.

Suitable for parts requiring high stiffness, high mechanical resistance, as in case of metal replacement applications. Good resistance to thermal ageing.

**General**

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Aging Resistant • High Stiffness • Heat Stabilized • UV Resistant
Uses	• Automotive Applications • Metal Replacement
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• GM GMW16582P-PA6-GF50
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6-T GF50

**Properties <sup>1</sup>**

<b>Physical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Density	1.58	--	g/cm <sup>3</sup>	ISO 1183
<b>Mechanical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus	2.25E+6	--	psi	ISO 527-1/1A/1
Tensile Stress (Break)	28300	--	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.4	--	%	ISO 527-2/1A/5
Flexural Modulus <sup>2</sup>	2.10E+6	--	psi	ISO 178
Flexural Stress <sup>2</sup>	43500	--	psi	ISO 178
<b>Impact</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	4.8	--	ft·lb/in <sup>2</sup>	
73°F	6.4	--	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength (73°F)	37	--	ft·lb/in <sup>2</sup>	ISO 179/1eU
<b>Thermal</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (264 psi, Unannealed)	401	--	°F	ISO 75-2/Af
Melting Temperature <sup>3</sup>	428	--	°F	ISO 11357-3
<b>Electrical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity <sup>4</sup>	1.0E+12	1.0E+10	ohms	IEC 62631-3-2
Volume Resistivity <sup>4</sup>	1.0E+15	1.0E+13	ohms·cm	IEC 62631-3-1
<b>Flammability</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Burning Rate (0.0787 in)	< 0.79	--	in/min	ISO 3795
Flame Rating (0.031 in)	HB	--		UL 94

**Processing Information**

<b>Injection</b>	<b>Dry Unit</b>
Drying Temperature - Desiccant Dryer	176 °F



Drying Time - Desiccant Dryer	2.0 to 4.0 hr
Dew Point - Desiccant Dryer	< -4 °F
Suggested Max Moisture	0.15 %
Processing (Melt) Temp	464 to 536 °F
Mold Temperature	176 to 194 °F
Injection Rate	Moderate-Fast
<b>Extrusion</b>	<b>Dry Unit</b>
Melt Temperature	518 to 554 °F

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 0.079 in/min

<sup>3</sup> 10°C/min

<sup>4</sup> 500V

