

**Radilon® A RV500K 100 NT**

 Radici Group High Performance Polymers - *Polyamide 66*
**General Information**
**Product Description**

PA66 50% glass fibre reinforced injection moulding grade. Heat stabilized. Natural colour

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

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Heat Aging Resistant	• Heat Stabilized	• High Stiffness
Uses	• Automotive Applications		
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• GM GMW3038P-PA66-GF50H	• IMDS ID 61195361 Color: 100 nat Natural	
Appearance	• Natural Color		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA66-T GF50		

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

<b>Physical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Density	1.57	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>2</sup>				ISO 294-4
Across Flow	0.70	--	%	
Flow	0.30	--	%	
Water Absorption (Saturation, 73°F, 0.0787 in)	4.6	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	1.1	--	%	ISO 62
<b>Mechanical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus	2.32E+6	1.81E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	34800	25400	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.5	3.2	%	ISO 527-2/1A/5
Flexural Modulus <sup>3</sup>	2.07E+6	--	psi	ISO 178
Flexural Stress <sup>3</sup>	53700	--	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	7.6	--	ft·lb/in <sup>2</sup>	
73°F	8.1	13	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	48	--	ft·lb/in <sup>2</sup>	
73°F	50	57	ft·lb/in <sup>2</sup>	
<b>Thermal</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (66 psi, Unannealed)	491	--	°F	ISO 75-2/Bf
Deflection Temperature Under Load (264 psi, Unannealed)	482	--	°F	ISO 75-2/ Af
Vicat Softening Temperature	482	--	°F	ISO 306/B50
Melting Temperature <sup>4</sup>	500	--	°F	ISO 11357-3



<b>Electrical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity <sup>5</sup>	1.0E+12	1.0E+10	ohms	IEC 62631-3-2
Volume Resistivity <sup>5</sup>	1.0E+15	1.0E+13	ohms·cm	IEC 62631-3-1
Comparative Tracking Index (Solution A)	550	--	V	IEC 60112
<b>Flammability</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Burning Rate (0.118 in)	0.0	--	in/min	ISO 3795
Flame Rating (0.031 in)	HB	--		UL 94
Glow Wire Flammability Index (0.08 in)	1290	--	°F	IEC 60695-2-12

### 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	0.10 %
Processing (Melt) Temp	554 to 581 °F
Mold Temperature	176 to 212 °F
Injection Rate	Moderate-Fast

### Notes

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 300°C Melt Temperature/ 90°C Mold Temperature/ 30 MPa Cavity Pressure
- <sup>3</sup> 0.079 in/min
- <sup>4</sup> 10°C/min
- <sup>5</sup> 500V

