

Radilon® A RV500W 100 NAT

 Radici Group High Performance Polymers - *Polyamide 66*

General Information

Product Description

PA66 50% glass fibre reinforced injection moulding grade, for high temperature applications, Natural colour

Suitable for parts requiring very high stiffness and excellent heat resistance

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Features	• High Heat Resistance	• High Stiffness	
Uses	• Automotive Applications		
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• GM GMW3038P-PA66-GF50H	• GM GMW3038P-PA66-GF50J	
Appearance	• Natural Color		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA66-TGF50		

 Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.58	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	0.70	--	%	
Flow	0.20	--	%	
Water Absorption (Saturation, 73°F, 0.0787 in)	4.0	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	1.1	--	%	ISO 62
Viscosity Index - Sulfuric Acid	3880	--	in ³ /lb	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.39E+6	2.10E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	35500	28300	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.3	3.4	%	ISO 527-2/1A/5
Flexural Modulus ³	2.22E+6	1.90E+6	psi	ISO 178
Flexural Stress ³	55100	42100	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (73°F)	8.1	13	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	50	57	ft·lb/in ²	ISO 179/1eU
Notched Izod Impact Strength (73°F)	7.6	--	ft·lb/in ²	ISO 180/1A
Thermal	Dry	Conditioned	Unit	Test Method
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
Deflection Temperature Under Load (1160 psi, Unannealed)	419	--	°F	ISO 75-2/Cf
Vicat Softening Temperature	482	--	°F	ISO 306/B50
Melting Temperature ⁴	500	--	°F	ISO 11357-3
Flammability	Dry	Conditioned	Unit	Test Method
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

Injection	Dry Unit
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

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

