

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

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
Appearance	• Natural Color
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66-T GF50

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.57	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	0.70	--	%	
Flow	0.30	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	4.6	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.1	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
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 ³	2.07E+6	--	psi	ISO 178
Flexural Stress ³	53700	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	7.6	--	ft·lb/in ²	
73°F	8.1	13	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	48	--	ft·lb/in ²	
73°F	50	57	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	491	--	°F	

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	482	--	°F	ISO 75-2/Af
Vicat Softening Temperature	482	--	°F	ISO 306/B50
Melting Temperature ⁴	500	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity ⁵	1.0E+12	1.0E+10	ohms	IEC 62631-3-2
Volume Resistivity ⁵	1.0E+15	1.0E+13	ohms·cm	IEC 62631-3-1
Comparative Tracking Index Solution A	550	--	V	IEC 60112
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

⁵ 500V