

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

Filler / Reinforcement	Glass Fiber, 50% Filler by Weight		
Additive	<ul style="list-style-type: none"> Heat Stabilizer 		
Features	<ul style="list-style-type: none"> Heat Aging Resistant Heat Stabilized 	<ul style="list-style-type: none"> High Stiffness UV Resistant 	
Uses	<ul style="list-style-type: none"> Automotive Applications 	<ul style="list-style-type: none"> Metal Replacement 	
Agency Ratings	<ul style="list-style-type: none"> EU 2011/65/EC 		
RoHS Compliance	<ul style="list-style-type: none"> RoHS Compliant 		
Appearance	<ul style="list-style-type: none"> Black 		
Processing Method	<ul style="list-style-type: none"> Injection Molding 		
Resin ID (ISO 1043)	<ul style="list-style-type: none"> PA6-T GF50 		

Properties ¹

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

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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	0.15 %
Processing (Melt) Temp	464 to 536 °F
Mold Temperature	176 to 194 °F
Injection Rate	Moderate-Fast
Extrusion	Dry Unit
Melt Temperature	518 to 554 °F

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

³ 10°C/min

⁴ 500V