

Radilon® S RV500W 100 NT

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 50% glass fiber reinforced injection moulding grade. Heat stabilized. Natural colour.

Suitable for parts requiring very 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	• Heat Stabilizer
Features	• Heat Aging Resistant • Heat Stabilized • High Stiffness
Uses	• Automotive Applications • Metal Replacement
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6-T GF50

Properties¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.57	--	g/cm ³	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	4.8	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.4	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.32E+6	--	psi	ISO 527-1/1A/1
Tensile Stress (Break)	33600	--	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.3	--	%	ISO 527-2/1A/5
Flexural Modulus ²	2.26E+6	--	psi	ISO 178
Flexural Stress ²	50200	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
73°F	8.1	--	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	43	--	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
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
Comparative Tracking Index				IEC 60112
Solution A	600	--	V	

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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

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

Notes

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

² 0.079 in/min

³ 10°C/min

⁴ 500V