

Radilon® S RV400W 333 BK

 Radici Group High Performance Polymers - *Polyamide 6*

General Information

Product Description

PA6 40% glass fiber reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring high stiffness, good mechanical resistance and excellent heat ageing properties retention.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 40% 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 GMW3029P-PA6-GF40H • STELLANTIS MS-DB-41 CPN3674
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6-T GF40

 Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.46	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.30	--	%	
Water Absorption (Saturation, 73°F, 0.0787 in)	5.0	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	1.4	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.84E+6	1.20E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	27600	17400	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	6.8	%	ISO 527-2/1A/5
Flexural Modulus ³	1.70E+6	--	psi	ISO 178
Flexural Stress ³	43500	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	5.2	--	ft·lb/in ²	
73°F	7.1	11	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	40	--	ft·lb/in ²	
73°F	43	50	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	401	--	°F	ISO 75-2/Af
Vicat Softening Temperature	410	--	°F	ISO 306/B50
Melting Temperature ⁴	428	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	7.8E-6	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	6.5E-5	--	in/in/°F	ISO 11359-2



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
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	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.
- ² 280°C Melt Temperature/ 90°C Mold Temperature/ 60 MPa Cavity Pressure
- ³ 0.079 in/min
- ⁴ 10°C/min
- ⁵ 500V

