

Radilon® S RV200W 333 BK

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 20% glass fiber reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring improved stiffness and excellent heat ageing resistance.

General

Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Additive	• Heat Stabilizer
Features	• Good Stiffness • Heat Aging Resistant • Heat Stabilized
Uses	• Automotive Applications
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6-T GF20

Properties¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.26	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.40	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	7.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	2.2	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.04E+6	--	psi	ISO 527-1/1A/1
Tensile Stress (Break)	20300	--	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.3	--	%	ISO 527-2/1A/5
Flexural Modulus ³	928000	--	psi	ISO 178
Flexural Stress ³	30500	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
73°F	3.5	--	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	24	--	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	401	--	°F	
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	383	--	°F	
Vicat Softening Temperature	410	--	°F	ISO 306/B50

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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature ⁴	428	--	°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
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	0.15	%
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.

² 300°C Melt Temperature/ 90°C Mold Temperature/ 60 MPa Cavity Pressure

³ 0.079 in/min

⁴ 10°C/min

⁵ 500V