

Radilon® S RV300K 333 BK

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 30% glass fiber reinforced injection moulding grade. Heat stabilized. Black colour.

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

General

Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Aging Resistant • Heat Stabilized • Medium Stiffness
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 GF30

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.36	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.30	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	7.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	2.0	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.38E+6	885000	psi	ISO 527-1/1A/1
Tensile Stress (Break)	24700	15200	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.5	6.0	%	ISO 527-2/1A/5
Flexural Modulus ³	1.25E+6	--	psi	ISO 178
Flexural Stress ³	37700	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	4.3	--	ft·lb/in ²	
73°F	5.2	7.1	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	33	--	ft·lb/in ²	
73°F	38	48	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	419	--	°F	

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	392	--	°F	ISO 75-2/Af
Vicat Softening Temperature	410	--	°F	ISO 306/B50
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
Comparative Tracking Index Solution A	500	--	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	1200	--	°F	IEC 60695-2-12
Glow Wire Ignition Temperature 0.08 in	1340	--	°F	IEC 60695-2-13

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