

# Radilon® S RV200K 3796 BK

## Radici Group High Performance Polymers - Polyamide 6

### General Information

#### Product Description

PA6 20% glass fiber reinforced injection moulding grade. Heat stabilized and colour matched DX9 Black

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

#### General

Filler / Reinforcement	• Glass Fiber, 20% 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-GF20

### Properties<sup>1</sup>

Physical	Dry	Conditioned	Unit	Test Method
Density	1.27	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>2</sup>				ISO 294-4
Across Flow	1.0	--	%	
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	--	%	
Viscosity Index - Sulfuric Acid	3880	--	in <sup>3</sup> /lb	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.04E+6	--	psi	ISO 527-1/1A/1
Tensile Stress (Break)	16200	--	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	--	%	ISO 527-2/1A/5
Flexural Modulus <sup>3</sup>	914000	--	psi	ISO 178
Flexural Stress <sup>3</sup>	27600	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	2.9	--	ft·lb/in <sup>2</sup>	
73°F	4.3	--	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	18	--	ft·lb/in <sup>2</sup>	
73°F	19	--	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength				ISO 180/1A
73°F	1.9	--	ft·lb/in <sup>2</sup>	

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Impact	Dry	Conditioned	Unit	Test Method
Unnotched Izod Impact Strength 73°F	13	--	ft·lb/in <sup>2</sup>	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed	401	--	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	379	--	°F	ISO 75-2/Af
Vicat Softening Temperature	410	--	°F	ISO 306/B50
Melting Temperature <sup>4</sup>	428	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	7.4E-6	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	1.4E-4	--	in/in/°F	ISO 11359-2

### 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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 280°C Melt Temperature/ 90°C Mold Temperature/ 60 MPa Cavity Pressure

<sup>3</sup> 0.079 in/min

<sup>4</sup> 10°C/min