

# Radilon® S RCP3010LK 333 BK

## Radici Group High Performance Polymers - Polyamide 6

### General Information

#### Product Description

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

Suitable for parts requiring improved stiffness and dimensional stability, reduced shrinkage and low warpage.

#### General

Filler / Reinforcement	• Glass Fiber\Mineral, 30% Filler by Weight
Additive	• Heat Stabilizer
Features	• Good Dimensional Stability • Heat Stabilized • Good Stiffness • Low Shrinkage • Low Warpage
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 (GF+MX)30

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

Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>2</sup>				ISO 294-4
Across Flow	0.60	--	%	
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	2.0	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.09E+6	725000	psi	ISO 527-1/1A/1
Tensile Stress (Break)	14500	9430	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.7	10	%	ISO 527-2/1A/5
Flexural Modulus <sup>3</sup>	1.04E+6	--	psi	ISO 178
Flexural Stress <sup>3</sup>	23200	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	1.7	--	ft·lb/in <sup>2</sup>	
73°F	2.6	3.3	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	19	--	ft·lb/in <sup>2</sup>	
73°F	20	24	ft·lb/in <sup>2</sup>	

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<b>Thermal</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load 66 psi, Unannealed	419	--	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	374	--	°F	ISO 75-2/Af
Vicat Softening Temperature	401	--	°F	ISO 306/B50
Melting Temperature <sup>4</sup>	428	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	1.7E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	5.8E-5	--	in/in/°F	ISO 11359-2
<b>Electrical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity <sup>5</sup>	1.0E+12	1.0E+10	ohms	IEC 62631-3-2
Volume Resistivity <sup>5</sup>	1.0E+15	1.0E+13	ohms·cm	IEC 62631-3-1
Comparative Tracking Index Solution A	500	--	V	IEC 60112
<b>Flammability</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
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**

<b>Injection</b>	<b>Dry</b>	<b>Unit</b>
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**

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 280°C Melt Temperature/ 80°C Mold Temperature/ 60 Mpa Cavity Pressure
- <sup>3</sup> 0.079 in/min
- <sup>4</sup> 10°C/min
- <sup>5</sup> 500V