

# Radilon® S RCW4015K 3796 BK

## Radici Group High Performance Polymers - Polyamide 6

### General Information

#### Product Description

PA6 40% combination of glass fibre and specialty minerals, improved heat and flow, injection moulding grade. Colour matched to FCA DX9 Black colour standard

Suitable for parts requiring good, dimensional stability, reduced shrinkage and low warp repeated high temperature exposure intended to resist outdoor exposure.

#### General

Filler / Reinforcement	• Glass Fiber/Mineral, 40% Filler by Weight
Features	• Good Dimensional Stability • Good Heat Resistance • Good Flow • Heat Stabilized • Low Shrinkage
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+MD)40

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

Physical	Nominal Value	Unit	Test Method
Density	1.48	g/cm <sup>3</sup>	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.17E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	16700	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.6	%	ISO 527-2/1A/5
Flexural Modulus <sup>2</sup>	1.07E+6	psi	ISO 178
Flexural Stress <sup>2</sup>	24700	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.4	ft·lb/in <sup>2</sup>	
73°F	3.1	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	20	ft·lb/in <sup>2</sup>	
73°F	21	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength			ISO 180/1A
-22°F	2.6	ft·lb/in <sup>2</sup>	
73°F	2.9	ft·lb/in <sup>2</sup>	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	401	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	383	°F	ISO 75-2/Af
Melting Temperature <sup>3</sup>	428	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	7.0E-6	in/in/°F	ISO 11359-2

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Thermal	Nominal Value	Unit	Test Method
CLTE - Transverse (73 to 131°F)	1.1E-4	in/in/°F	ISO 11359-2

**Processing Information**

Injection	Nominal Value	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	140 to 194	°F
Injection Rate	Moderate-Fast	

**Notes**

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

<sup>2</sup> 0.079 in/min

<sup>3</sup> 10°C/min