

# Radilon® D CF150W 333 BK

## Radici Group High Performance Polymers - Polyamide 610

### General Information

#### Product Description

PA610 15% carbon fiber reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts and components requiring high mechanical properties. The presence of carbon fibers also provides higher electrical and thermal conductivity. This grade is partially renewably-sourced (64% of base polymer by weight).

#### General

Filler / Reinforcement	• Carbon Fiber, 15% Filler by Weight
Additive	• Heat Stabilizer
Features	• Electrically Conductive • Heat Stabilized • Renewable Resource Content • Thermally Conductive
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA610-CF15

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

Physical	Dry	Conditioned	Unit	Test Method
Density	1.15	--	g/cm <sup>3</sup>	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	2.7	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.2	--	%	
Biobased Carbon Content	64	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.68E+6	--	psi	ISO 527-1/1A/1
Tensile Stress (Break)	26100	--	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.5	--	%	ISO 527-2/1A/5
Flexural Modulus <sup>2</sup>	1.36E+6	--	psi	ISO 178
Flexural Stress <sup>2</sup>	34800	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	24	--	ft·lb/in <sup>2</sup>	
Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature <sup>3</sup>	428	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity (500 V)	1.0E+5	1.0E+4	ohms	IEC 62631-3-2
Volume Resistivity (500 V)	1.0E+3	1.0E+2	ohms·m	IEC 62631-3-1
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.031 in)	HB	--		UL 94

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#### 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	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