

# Radilon® A GF350W 333 BK

## Radici Group High Performance Polymers - Polyamide 66

### General Information

#### Product Description

PA66 35% glass fibre reinforced injection moulding grade. Heat stabilized. Partially made with recycled feedstock Black colour.

Suitable for parts requiring high stiffness, good mechanical resistance and heat ageing properties retention. Typical material used for automotive under bonnet components.

#### General

Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight	
Additive	• Heat Stabilizer	
Recycled Content	• Yes	
Features	• Good Impact Resistance • Heat Aging Resistant	• Heat Stabilized • High Stiffness
Uses	• Automotive Applications	• Automotive Under the Hood
Agency Ratings	• EU 2011/65/EC	
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA66-T GF35	

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

Physical	Dry	Conditioned	Unit	Test Method
Density	1.41	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>2</sup>				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.30	--	%	
Water Absorption				ISO 62
24 hr, 73°F, 0.0787 in	1.1	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	5.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.5	--	%	
Viscosity Index - Sulfuric Acid	3740	--	in <sup>3</sup> /lb	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.64E+6	1.20E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	24700	16500	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.4	4.0	%	ISO 527-2/1A/5
Flexural Modulus <sup>3</sup>	1.49E+6	1.06E+6	psi	ISO 178
Flexural Stress <sup>3</sup>	37700	30500	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	3.3	--	ft·lb/in <sup>2</sup>	
73°F	4.0	6.4	ft·lb/in <sup>2</sup>	

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<b>Impact</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	29	--	ft·lb/in <sup>2</sup>	
73°F	37	41	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength				ISO 180/1A
-22°F	3.3	--	ft·lb/in <sup>2</sup>	
73°F	3.9	5.9	ft·lb/in <sup>2</sup>	
<b>Thermal</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	482	--	°F	
Vicat Softening Temperature	482	--	°F	ISO 306/B50
Melting Temperature <sup>4</sup>	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	9.1E-6	--	in/in/°F	ISO 11359-1
CLTE - Transverse (73 to 131°F)	1.1E-4	--	in/in/°F	ISO 11359-1
<b>Flammability</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Burning Rate (0.118 in)	< 1.2	--	in/min	ISO 3795
Flame Rating (0.031 in)	HB	--		UL 94

**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	0.10	%
Processing (Melt) Temp	536 to 572	°F
Mold Temperature	176 to 212	°F
Injection Rate	Moderate-Fast	

**Notes**

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 300°C Melt Temperature/ 90°C Mold Temperature/ 60 MPa Cavity Pressure
- <sup>3</sup> 0.079 in/min
- <sup>4</sup> 10°C/min