

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

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight
Additive	• Heat Stabilizer
Recycled Content	• Yes
Features	• Good Impact Resistance • Heat Stabilized • Heat Aging Resistant • High Stiffness
Uses	• Automotive Applications • Automotive Under the Hood
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• GM GMW3038P-PA66-GF35H
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66-T GF35

 Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.41	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.30	--	%	
Water Absorption (24 hr, 73°F, 0.0787 in)	1.1	--	%	ISO 62
Water Absorption (Saturation, 73°F, 0.0787 in)	5.5	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	1.5	--	%	ISO 62
Viscosity Index - Sulfuric Acid	3740	--	in ³ /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 ³	1.49E+6	1.06E+6	psi	ISO 178
Flexural Stress ³	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 ²	
73°F	4.0	6.4	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	29	--	ft·lb/in ²	
73°F	37	41	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-22°F	3.3	--	ft·lb/in ²	



73°F	3.9	5.9	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	482	--	°F	ISO 75-2/Af
Vicat Softening Temperature	482	--	°F	ISO 306/B50
Melting Temperature ⁴	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
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.118 in)	< 1.2	--	in/min	ISO 3795
Flame Rating (0.031 in)	HB	--		UL 94

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			536 to 572 °F
Mold Temperature			176 to 212 °F
Injection Rate			Moderate-Fast

Notes

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

