

Radilon® A CF400W 333 BK

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 40% carbon fiber reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts and components requiring very high mechanical properties: stiffness, dimensional stability, fatigue and creep resistance. The presence of carbon fibers also provides higher electrical and thermal conductivity.

General

Filler / Reinforcement	• Carbon Fiber, 40% Filler by Weight
Additive	• Heat Stabilizer
Features	<ul style="list-style-type: none"> • Creep Resistant • Electrically Conductive • Fatigue Resistant • Heat Stabilized • High Dimensional Stability • High Stiffness • Thermally Conductive
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66-CF40

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.32	--	g/cm ³	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	5.7	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.6	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	4.64E+6	3.19E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	36300	23200	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.3	1.5	%	ISO 527-2/1A/5
Flexural Modulus ²	3.63E+6	--	psi	ISO 178
Flexural Stress ²	56600	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	4.3	--	ft·lb/in ²	
73°F	5.2	6.2	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	31	--	ft·lb/in ²	
73°F	31	40	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	482	--	°F	
Vicat Softening Temperature	464	--	°F	ISO 306/B50
Melting Temperature ³	500	--	°F	ISO 11357-3

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Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (500 V)	1.0E+2	1.0E+2	ohms·m	IEC 62631-3-1
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.118 in)	< 0.39	--	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

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	

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

³ 10°C/min