

Radiflam® A RV500 AF 375 BK

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 flame retardant injection moulding grade with red phosphorus. 50% glass fiber reinforced. Heat stabilized, improved impact properties. Black colour.

Suitable for parts requiring fire retardancy along with high stiffness and mechanical resistance. Rated V-0 at 0.8 mm according to UL-94.

General

Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Additive	• Flame Retardant • Heat Stabilizer
Features	• Flame Retardant • Heat Stabilized • Good Impact Resistance • High Stiffness
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66 GF50 FR(52)

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.62	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	0.60	--	%	
Flow	0.20	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	3.8	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	0.80	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.45E+6	1.83E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	30500	21800	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.6	3.2	%	ISO 527-2/1A/5
Flexural Modulus ³	2.25E+6	--	psi	ISO 178
Flexural Stress ³	46400	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
73°F	6.2	8.6	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	40	43	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	482	--	°F	
Melting Temperature ⁴	500	--	°F	ISO 11357-3

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity (500 V)	1.0E+12	1.0E+10	ohms	IEC 62631-3-2
Volume Resistivity (500 V)	1.0E+13	1.0E+11	ohms·m	IEC 62631-3-1
Comparative Tracking Index				IEC 60112
Solution A	500	--	V	
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.031 in)	V-0	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.04 in	1760	--	°F	
0.08 in	1760	--	°F	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.04 in	1380	--	°F	
0.08 in	1430	--	°F	

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.

² 280°C Melt Temperature, 80°C Mold Temperature, 60 MPa Cavity Pressure

³ 0.079 in/min

⁴ 10°C/min