

Radiflam® A RV250 HF 3003 BK

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 flame retardant for injection molding grade, halogen and red phosphorus free. 25% glass fibre reinforced. Black colour.

Suitable for parts requiring flame retardancy along with medium stiffness and good mechanical resistance. Good electrical insulating properties. Laser markable grade. Rated V-0 according to UL-94.

General

Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight
Additive	• Flame Retardant
Features	• Electrically Insulating • Flame Retardant • Halogen Free • Low (to None) Phosphorus Content • Medium Stiffness
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66-GF25 FR(40)

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.36	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.40	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	5.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.3	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.31E+6	1.06E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	19600	15200	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	3.5	%	ISO 527-2/1A/5
Flexural Modulus ³	1.25E+6	870000	psi	ISO 178
Flexural Stress ³	30500	23900	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
73°F	4.3	7.1	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	29	36	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	464	--	°F	
Vicat Softening Temperature	473	--	°F	ISO 306/B50

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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature ⁴	500	--	°F	ISO 11357-3
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
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.031 in	V-0	--		
0.06 in	5VA	--		
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
0.08 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