

Radiflam® A RV300 HF 339 BK

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 flame retardant injection moulding grade. Halogen and phosphorus free. 30% glass fibre reinforced and heat stabilized. Deep black colour.

Suitable for parts requiring fire retardancy along with high stiffness and good mechanical resistance. Good electrical insulating properties. Rated V-0 according to UL-94.

General

Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Additive	• Flame Retardant	• Heat Stabilizer	
Features	• Electrically Insulating • Flame Retardant	• Halogen Free • Heat Stabilized	• High Stiffness • Low (to None) Phosphorus Content
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA66-GF30 FR(40)		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.41	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.30	--	%	
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	1.54E+6	1.28E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	21800	16000	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.8	3.5	%	ISO 527-2/1A/5
Flexural Modulus ³	1.46E+6	--	psi	ISO 178
Flexural Stress ³	34100	--	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	4.8	5.7	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	31	--	ft·lb/in ²	
73°F	33	--	ft·lb/in ²	

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed	491	--	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	464	--	°F	ISO 75-2/Af
Vicat Softening Temperature	482	--	°F	ISO 306/B50
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
Electric Strength	1000	890	V/mil	IEC 60243-1
Comparative Tracking Index Solution A	550	--	V	IEC 60112
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	1340	--	°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	527 to 554	°F
Mold Temperature	176 to 194	°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