

# Radiflam® A RV150HHR AF 3800 BK

## Radici Group High Performance Polymers - Polyamide 66

### General Information

#### Product Description

PA66 flame retardant with Red Phosphorus. 15% glass fiber reinforced, highly heat resistance injection moulding grade, black colour.

Suitable for parts requiring fire retardancy, high heat resistance and improved stiffness. Rated V-0 at 0.75mm according to UL-94.

#### General

Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight
Additive	• Flame Retardant
Features	• Flame Retardant • Good Stiffness • High Heat Resistance
Uses	• Automotive Applications
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66 TGF15-FR52

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	1.34	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (275°C/0.325 kg)	32	g/10 min	ISO 1133
Molding Shrinkage <sup>2</sup>			ISO 294-4
Across Flow	1.2	%	
Flow	0.90	%	
Water Absorption (Saturation, 73°F, 0.0787 in)	5.5	%	ISO 62
Water Absorption			ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.3	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	943000	psi	ISO 527-1/1A/1
Tensile Stress (Break)	16000	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.8	%	ISO 527-2/1A/5
Flexural Modulus <sup>3</sup>	856000	psi	ISO 178
Flexural Stress <sup>3</sup>	24700	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.9	ft·lb/in <sup>2</sup>	
73°F	3.3	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength (73°F)	25	ft·lb/in <sup>2</sup>	ISO 179/1eU
Notched Izod Impact Strength			ISO 180/1A
-22°F	2.5	ft·lb/in <sup>2</sup>	
73°F	2.9	ft·lb/in <sup>2</sup>	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	482	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	419	°F	ISO 75-2/Af
Vicat Softening Temperature	428	°F	ISO 306/B50
Melting Temperature <sup>4</sup>	500	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	1.1E-4	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	1.5E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity <sup>5</sup>	1.0E+11	ohms	IEC 62631-3-2
Volume Resistivity <sup>5</sup>	1.0E+15	ohms·cm	IEC 62631-3-1
Flammability	Nominal Value	Unit	Test Method
Burning Rate (0.118 in)	0.0	in/min	ISO 3795
Flame Rating			UL 94
0.031 in	V-0		
0.06 in	V-0		
Glow Wire Flammability Index (0.04 in)	1760	°F	IEC 60695-2-12

### Processing Information

Injection	Nominal Value	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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 280°C Melt Temperature, 80°C Mold Temperature, 60 MPa Cavity Pressure

<sup>3</sup> 0.079 in/min

<sup>4</sup> 10°C/min

<sup>5</sup> 500V