

# Radiflam® S RV300 HFG1 148 NT

## Radici Group High Performance Polymers - Polyamide 6

### General Information

#### Product Description

PA6 flame retardant injection moulding grade, halogen and red phosphorus free with improved GWIT performances. 30% glass fiber reinforced. Heat stabilized, natural 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 • Good Electrical Properties	• Halogen Free • Heat Stabilized • High Stiffness	• Low (to None) Phosphorus Content
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA6-GF30 FR(40)		

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

Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.60	%	
Flow	0.30	%	
Water Absorption (Saturation, 73°F, 0.0787 in)	4.9	%	ISO 62
Water Absorption			ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.6	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.67E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	20300	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.5	%	ISO 527-2/1A/5
Flexural Modulus <sup>2</sup>	1.52E+6	psi	ISO 178
Flexural Stress <sup>2</sup>	35500	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	5.7	ft-lb/in <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	33	ft-lb/in <sup>2</sup>	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/Af
264 psi, Unannealed	374	°F	
Melting Temperature <sup>3</sup>	428	°F	ISO 11357-3
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity (500 V)	1.0E+12	ohms	IEC 62631-3-2
Volume Resistivity (500 V)	1.0E+13	ohms·m	IEC 62631-3-1
Comparative Tracking Index (Solution A)	525	V	IEC 60112

**Radiflam® S RV300 HFG1 148 NT**  
**Radici Group High Performance Polymers - Polyamide 6**

<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Burning Rate (0.118 in)	0.0	in/min	ISO 3795
Flame Rating			UL 94
0.016 in		V-0	
0.031 in		V-0	
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
0.030 in	1470	°F	
0.06 in	1470	°F	

**Processing Information**

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
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	500 to 554	°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> 0.079 in/min

<sup>3</sup> 10°C/min