

# Radiflam® A FR 5138 OR

## Radici Group High Performance Polymers - Polyamide 66

### General Information

#### Product Description

PA66 flame retardant injection moulding grade. Halogen and phosphorus free. Orange colour.

Suitable for parts where fire retardancy is required. Rated V-0 at 0.4 mm according to UL-94. Also suitable for monofilament extrusion.

#### General

Additive	• Flame Retardant		
Features	• Flame Retardant	• Halogen Free	• Low (to None) Phosphorus Content
Uses	• Monofilaments		
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Appearance	• Orange		
Processing Method	• Extrusion	• Injection Molding	
Resin ID (ISO 1043)	• PA66 FR(30)		

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

Physical	Dry	Conditioned	Unit	Test Method
Density	1.18	--	g/cm <sup>3</sup>	ISO 1183
Viscosity Number				ISO 307
H2SO4 (Sulphuric Acid)	120	--	cm <sup>3</sup> /g	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	493000	--	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	10900	--	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.1	--	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	6.0	--	%	ISO 527-2/1A/50
Flexural Modulus <sup>2</sup>	493000	--	psi	ISO 178
Flexural Stress <sup>2</sup>	16700	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	1.1	--	ft·lb/in <sup>2</sup>	
73°F	1.1	--	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	25	--	ft·lb/in <sup>2</sup>	
73°F	24	--	ft·lb/in <sup>2</sup>	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/ Af
264 psi, Unannealed	158	--	°F	
Melting Temperature <sup>3</sup>	491	--	°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

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Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index Solution A	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
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
0.04 in	1290	--	°F	
0.08 in	1290	--	°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	518 to 554	°F
Mold Temperature	140 to 176	°F
Injection Rate	Moderate	
Extrusion	Dry	Unit
Melt Temperature	518 to 554	°F

### 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