

# Radiflam® A FR 100 NT

## Radici Group High Performance Polymers - Polyamide 66

### General Information

#### Product Description

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

Suitable for parts where fire retardancy is required, particularly for thin-walled items of with long flow paths. Rated V-0 at 0.4 mm according to UL-94.

#### General

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

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

Physical	Dry	Conditioned	Unit	Test Method
Density	1.17	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.1	--	%	
Flow	1.1	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	7.7	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.8	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	508000	377000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	10900	7250	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.5	4.0	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	11	> 50	%	ISO 527-2/1A/50
Flexural Modulus <sup>2</sup>	479000	--	psi	ISO 178
Flexural Stress <sup>2</sup>	16000	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	1.9	--	ft-lb/in <sup>2</sup>	
73°F	2.1	3.1	ft-lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	36	57	ft-lb/in <sup>2</sup>	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	392	--	°F	

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	158	--	°F	ISO 75-2/Af
Vicat Softening Temperature	428	--	°F	ISO 306/B50
Melting Temperature <sup>3</sup>	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	790	660	V/mil	IEC 60243-1
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 0.016 in 0.031 in	V-0 V-0	-- --		UL 94
Glow Wire Flammability Index 0.04 in 0.08 in	1760 1760	-- --	°F °F	IEC 60695-2-12
Glow Wire Ignition Temperature 0.04 in 0.08 in	> 1430 > 1380	-- --	°F °F	IEC 60695-2-13
Oxygen Index	35	--	%	ISO 4589-2

### 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