

# Radiflam® A FRX 122 NT

## Radici Group High Performance Polymers - Polyamide 66

### General Information

#### Product Description

PA66 flame retardant injection moulding grade with enhanced mechanical properties retention after thermal aging. Enhanced flowability. Halogen and phosphorus free. Natural colour.

Suitable for parts where fire retardancy is required. Rated V-0 at 0.25 mm according to UL-94.

#### General

Additive	• Flame Retardant	
Features	• Flame Retardant • Good Flow	• Halogen Free • Low (to None) Phosphorus Content
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	1.18	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>2</sup>				ISO 294-4
Across Flow	1.1	--	%	
Flow	1.1	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	7.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.7	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	522000	--	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	10900	--	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.5	--	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	5.0	--	%	ISO 527-2/1A/50
Flexural Modulus <sup>3</sup>	522000	--	psi	ISO 178
Flexural Stress <sup>3</sup>	17400	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
73°F	1.8	--	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	
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	158	--	°F	
Vicat Softening Temperature	428	--	°F	ISO 306/B50
Ball Pressure Test (> 392°F)	Pass	--		IEC 60695-10-2

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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature <sup>4</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
Comparative Tracking Index Solution A	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.0079 in	V-0	--		
0.016 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	1380	--	°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 536 °F
Mold Temperature	140 to 176 °F
Injection Rate	Moderate
Extrusion	Dry Unit
Melt Temperature	518 to 536 °F

### Notes

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

<sup>2</sup> 280°C Melt Temperature, 70°C Mold Temperature, 60 MPa Cavity Pressure

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

<sup>4</sup> 10°C/min