

Radiflam® S FR 100 NT

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 flame retardant injection moulding grade. Halogen and red phosphorus free. Natural colour.

Suitable for parts where fire retardancy is required. 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
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA6 FR(30)		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.17	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.1	--	%	
Flow	1.1	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	8.0	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	2.0	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	515000	355000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	10900	6530	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.0	28	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	13	50	%	ISO 527-2/1A/50
Flexural Modulus ²	479000	--	psi	ISO 178
Flexural Stress ²	16000	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	1.1	--	ft·lb/in ²	
73°F	1.7	4.8	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	320	--	°F	
Deflection Temperature Under Load				ISO 75-2/Ad
264 psi, Unannealed	131	--	°F	
Vicat Softening Temperature	383	--	°F	ISO 306/B50
Melting Temperature ³	428	--	°F	ISO 11357-3

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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	760	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				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	1470	--	°F	
0.08 in	1470	--	°F	
Oxygen Index	36	--	%	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	464 to 536 °F
Mold Temperature	158 to 176 °F
Injection Rate	Moderate

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

³ 10°C/min