

Radilon® A RV500 100 NT

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 50% glass fiber reinforced injection moulding grade. Natural colour.

Suitable for parts requiring very high stiffness and high mechanical resistance, as in case of metal replacement applications.

General

Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Features	• High Stiffness
Uses	• Metal Replacement
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66-GF50

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.57	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.70	--	%	
Flow	0.20	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	4.6	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.1	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.32E+6	1.81E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	34800	25400	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.4	3.5	%	ISO 527-2/1A/5
Flexural Modulus ²	2.10E+6	--	psi	ISO 178
Flexural Stress ²	53700	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	7.6	--	ft·lb/in ²	
73°F	8.1	13	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	48	--	ft·lb/in ²	
73°F	50	57	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	491	--	°F	
Deflection Temperature Under Load				ISO 75-2/ Af
264 psi, Unannealed	482	--	°F	

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Thermal	Dry	Conditioned	Unit	Test Method
Vicat Softening Temperature	482	--	°F	ISO 306/B50
Melting Temperature ³	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	8.3E-6	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	4.7E-5	--	in/in/°F	ISO 11359-2
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
Burning Rate (0.118 in)	0.0	--	in/min	ISO 3795
Flame Rating (0.031 in)	HB	--		UL 94
Glow Wire Flammability Index 0.08 in	1290	--	°F	IEC 60695-2-12

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	0.15	%
Processing (Melt) Temp	554 to 581	°F
Mold Temperature	176 to 212	°F
Injection Rate	Moderate-Fast	

Notes

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

² 0.079 in/min

³ 10°C/min