Radilon® A RV500UK 333 BK

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 50% glass fiber reinforced injection moulding grade. Improved UV resistance. Black colour.

Suitable for parts requiring very high stiffness and mechanical resistance, as in case of metal replacement applications, good heat ageing properties retention.

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

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.57	--	g/cm³	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	2.35E+6	--	psi	ISO 527-1/1A/1
Tensile Stress (Break)	31900	--	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.5	--	%	ISO 527-2/1A/5
Flexural Modulus [2]	2.22E+6	--	psi	ISO 178
Flexural Stress [2]	47900	--	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
73°F	5.2	--	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	40	--	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	473	--	°F	
Vicat Softening Temperature	482	--	°F	ISO 306/B50
Melting Temperature [3]	500	--	°F	ISO 11357-3
Thermal Conductivity [4] (73°F)	2.6	--	Btu·in/hr/ft²/°F	

Radilon® A RV500UK 333 BK

Radici Group High Performance Polymers - Polyamide 66

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
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				IEC 60695-2-12
0.08 in	1290	--	°F	
Oxygen Index	22	--	%	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	0.15	%
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

[4] inplane