Radilon® S RV500X2N 333 BK

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 50% glass fibre reinforced injection moulding grade with enhanced thermal resistance in contact with hot air. Electrically neutral and DPPD free. Outstanding mechanical properties retention versus standard polyamide 6 after heat ageing. Black colour.

Suitable for parts requiring very high stiffness, high mechanical resistance and excellent heat ageing properties retention.

General		
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight	
Features	• Heat Aging Resistant	• High Stiffness
Agency Ratings	• EU 2011/65/EC	
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA6-GF50	

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.56	--	g/cm³	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	4.8	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.4	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	2.44E+6	1.42E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	31900	18900	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	6.0	%	ISO 527-2/1A/5
Flexural Modulus [2]	2.19E+6	1.26E+6	psi	ISO 178
Flexural Stress [2]	50800	27600	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	6.7	8.6	ft·lb/in²	
73°F	9.0	12	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	43	48	ft·lb/in²	
73°F	45	52	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	392	--	°F	
Melting Temperature [3]	428	--	°F	ISO 11357-3
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Burning Rate (0.118 in)	0.0	--	in/min	ISO 3795

Radilon® S RV500X2N 333 BK

Radici Group High Performance Polymers - Polyamide 6

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	464 to 536	°F
Mold Temperature	176 to 194	°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