

Radilon® S URV600W 339 BK

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 60% glass fibre reinforced injection moulding grade. Very high flowability. Heat stabilized. Black colour.

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

General

Filler / Reinforcement	• Glass Fiber, 60% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Aging Resistant • High Flow • Heat Stabilized • High Stiffness
Uses	• Metal Replacement
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6-GF60

Properties¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.69	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.60	--	%	
Flow	0.10	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	4.4	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.1	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	3.00E+6	2.41E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	33400	26800	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.1	3.0	%	ISO 527-2/1A/5
Flexural Modulus ²	2.86E+6	2.07E+6	psi	ISO 178
Flexural Stress ²	50800	37700	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	40	52	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	419	--	°F	
Melting Temperature ³	428	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	5.9E-6	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	5.1E-5	--	in/in/°F	ISO 11359-2

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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
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	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