

Radilon® S RV300W 100 NT

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 30% glass fiber reinforced injection moulding grade. Heat stabilized. Natural colour.

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

General

Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Aging Resistant • Heat Stabilized • High Stiffness
Uses	• Automotive Applications
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6-T GF30

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.35	--	g/cm ³	ISO 1183
Molding Shrinkage ²				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.30	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	7.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	2.0	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.38E+6	928000	psi	ISO 527-1/1A/1
Tensile Stress (Break)	25400	16700	psi	ISO 527-2/1A/5
Tensile Strain (Break)	4.1	8.0	%	ISO 527-2/1A/5
Flexural Modulus ³	1.17E+6	--	psi	ISO 178
Flexural Stress ³	37700	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	5.2	--	ft·lb/in ²	
73°F	7.1	12	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	40	--	ft·lb/in ²	
73°F	45	52	ft·lb/in ²	

Radilon® S RV300W 100 NT

Radici Group High Performance Polymers - Polyamide 6

Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed	419	--	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	392	--	°F	ISO 75-2/Af
Vicat Softening Temperature	410	--	°F	ISO 306/B50
Melting Temperature ⁴	428	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	1.4E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	5.3E-5	--	in/in/°F	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity ⁵	1.0E+12	1.0E+10	ohms	IEC 62631-3-2
Volume Resistivity ⁵	1.0E+15	1.0E+13	ohms·cm	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	1200	--	°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.

² 280°C Melt Temperature/ 90°C Mold Temperature/ 60 MPa Cavity Pressure

³ 0.079 in/min

⁴ 10°C/min

⁵ 500V