

Radilon® A RV300RG 3900 BK

Radici Group High Performance Polymers - *Polyamide 66*

General Information

Product Description

PA66 30% glass fiber reinforced injection moulding grade. Heat stabilized, high hydrolysis resistance. Deep black colour.

Suitable for parts requiring high stiffness and good mechanical resistance. Particularly fit to work in contact with automotive cooling circuit liquids.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Heat Stabilized	• High Stiffness	• Hydrolysis Resistant
Uses	• Automotive Applications		
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• STELLANTIS MS-DB-41 CPN4018		
Appearance	• Black		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA66-GF30		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.30	--	%	
Water Absorption (24 hr, 73°F, 0.0787 in)	1.0	--	%	ISO 62
Water Absorption (Saturation, 73°F, 0.0787 in)	7.0	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	1.7	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.45E+6	1.16E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	27600	19600	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.5	5.2	%	ISO 527-2/1A/5
Flexural Modulus ²	1.32E+6	885000	psi	ISO 178
Flexural Stress ²	42800	31900	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	4.8	--	ft·lb/in ²	
73°F	5.7	8.6	ft·lb/in ²	
Charpy Unnotched Impact Strength (73°F)	43	50	ft·lb/in ²	ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	491	--	°F	ISO 75-2/Bf
Deflection Temperature Under Load (264 psi, Unannealed)	464	--	°F	ISO 75-2/ Af
Vicat Softening Temperature	482	--	°F	ISO 306/B50
Melting Temperature ³	500	--	°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 (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	536 to 572 °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

