

Radilon® AESTUS T1 RV330RG 3900 BK

 Radici Group High Performance Polymers - *Polyphthalamide*

General Information

Product Description

PPA injection moulding grade 33% glass fiber reinforced with high glass transition temperature and high melting point. Black colour.

Suitable for parts requiring high stiffness and strength. High resistance to hot water and automotive cooling circuit liquids.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight
Features	• High Stiffness • High Strength
Uses	• Automotive Applications
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6T/6I-GF33

 Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.43	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.70	--	%	
Flow	0.30	--	%	
Water Absorption (24 hr, 73°F, 0.0787 in)	0.20	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.71E+6	1.71E+6	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	31900	28300	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.6	2.5	%	ISO 527-2/1A/5
Flexural Modulus ²	1.62E+6	--	psi	ISO 178
Flexural Stress ²	43500	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	5.7	--	ft·lb/in ²	
73°F	6.2	5.7	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	31	--	ft·lb/in ²	
73°F	38	--	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	527	--	°F	ISO 75-2/Af
Melting Temperature ³	590	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	1.1E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	3.8E-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

Processing Information

Injection				Dry Unit
Drying Temperature - Desiccant Dryer				248 °F
Drying Time - Desiccant Dryer				> 4.0 hr
Dew Point - Desiccant Dryer				< -4 °F
Suggested Max Moisture				0.10 %
Processing (Melt) Temp				608 to 644 °F
Mold Temperature				266 to 302 °F
Injection Rate				Fast

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

³ 10°C/min

