

Radilon® AESTUS T1 RV500K 333 BK

Radici Group High Performance Polymers - Polyphthalamide

General Information

Product Description

PPA injection moulding grade 50% glass fiber reinforced with high glass transition temperature and high melting point. Heat stabilized. Black colour.

Suitable for parts requiring very high stiffness and strength.

General

Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized • High Stiffness • High Strength
Agency Ratings	• EU 2011/65/EC
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6T/6I- GF50

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.64	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.50	%	
Flow	0.10	%	
Water Absorption (24 hr, 73°F, 0.0787 in)	0.10	%	ISO 62
Water Absorption			ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.1	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.77E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	39900	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.1	%	ISO 527-2/1A/5
Flexural Modulus ²	2.58E+6	psi	ISO 178
Flexural Stress ²	58000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	6.2	ft-lb/in ²	
73°F	7.1	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	40	ft-lb/in ²	
73°F	45	ft-lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/Af
264 psi, Unannealed	536	°F	
Melting Temperature ³	599	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	8.3E-6	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	2.8E-5	in/in/°F	ISO 11359-2

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Electrical	Nominal Value	Unit	Test Method
Surface Resistivity (500 V)	1.0E+12	ohms	IEC 62631-3-2
Volume Resistivity (500 V)	1.0E+13	ohms·m	IEC 62631-3-1

Flammability	Nominal Value	Unit	Test Method
Burning Rate (0.118 in)	< 0.39	in/min	ISO 3795
Flame Rating (0.031 in)	HB		UL 94

Processing Information

Injection	Nominal Value	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	626 to 644	°F
Mold Temperature	284 to 320	°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