

Radilon® AESTUS T1 RV400FC 306K BK

Radici Group High Performance Polymers - Polyphthalamide

General Information

Product Description

PPA injection moulding grade 40% glass fiber reinforced with high glass transition temperature and high melting point. Black colour.

Suitable for parts requiring high stiffness and strength. Appropriate for foodstuff contact, especially for kitchen tools, and for fuel cell components thanks to its high purity.

General

Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight	
Features	• Food Contact Acceptable • High Purity	• High Stiffness • High Strength
Uses	• Kitchenware	• Non-specific Food Applications
Agency Ratings	• EU 2011/65/EC	• FDA 21 CFR 177.1500
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA6T/6I-GF40	

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.52	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.20	--	%	
Flow	0.70	--	%	
Water Absorption				ISO 62
24 hr, 73°F, 0.0787 in	0.10	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.18E+6	2.15E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	33400	32600	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.0	2.0	%	ISO 527-2/1A/5
Flexural Modulus ²	1.96E+6	--	psi	ISO 178
Flexural Stress ²	47900	--	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	4.8	5.2	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	26	--	ft·lb/in ²	
73°F	33	--	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	563	--	°F	
Melting Temperature ³	608	--	°F	ISO 11357-3

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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
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	626 to 662	°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