Radilon® A RV350HHR 3800 BK

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 35% glass fiber reinforced injection molding grade with enhanced thermal resistance in contact with hot air. High improvement of mechanical properties retention versus standard polyamide 66 after heat ageing.

Alternative to PPA and PA4.6 grades in automotive applications like turbo air ducts, CAC tanks, EGR housing. Continuous use temperature until 210°C in air.

General

Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight	
Features	• Good Heat Resistance	• Heat Aging Resistant
Uses	• Automotive Applications	
Agency Ratings	• EU 2011/65/EC	
RoHS Compliance	• RoHS Compliant	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA66-GF35	

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.39	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.40	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	6.3	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.5	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	1.52E+6	1.10E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	24700	17400	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.5	6.5	%	ISO 527-2/1A/5
Flexural Modulus [2]	1.38E+6	1.02E+6	psi	ISO 178
Flexural Stress [2]	39200	27600	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	6.7	--	ft·lb/in²	
73°F	7.6	9.5	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	45	--	ft·lb/in²	
73°F	45	43	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	464	--	°F	
Ball Pressure Test (> 320°F)	Pass	--		IEC 60695-10-2

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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature [3]	500	--	°F	ISO 11357-3
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
Comparative Tracking Index				IEC 60112
Solution A	350	--	V	
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Burning Rate	0.0	--	in/min	ISO 3795
Flame Rating (0.031 in)	HB	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.08 in	1290	--	°F	

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	0.10	%
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