Radilon® D RV300W 333 BK

Radici Group High Performance Polymers - Polyamide 610

General Information

Product Description

PA610 30% glass fiber reinforced injection moulding grade. Heat stabilized, Black colour.

Suitable for parts requiring good dimensional stability, high stiffness and mechanical resistance. Typical application: automotive fuel system components. This grade is partially renewably-sourced (64% of base polymer by weight).

General		
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight	
Additive	• Heat Stabilizer	
Features	• Good Dimensional Stability • Heat Stabilized	• High Stiffness • Renewable Resource Content
Uses	• Automotive Applications	
Agency Ratings	• EU 2011/65/EC	
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA610-GF30	

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.30	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.70	--	%	
Flow	0.30	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	2.2	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.0	--	%	
Biobased Carbon Content	64	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	1.19E+6	1.04E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	21000	17400	psi	ISO 527-2/1A/5
Tensile Strain (Break)	4.1	3.9	%	ISO 527-2/1A/5
Flexural Modulus [2]	1.03E+6	798000	psi	ISO 178
Flexural Stress [2]	31900	25400	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	4.3	--	ft·lb/in²	
73°F	5.2	6.4	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	40	--	ft·lb/in²	
73°F	43	45	ft·lb/in²	

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Bf
66 psi, Unannealed	419	--	°F	
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	392	--	°F	
Melting Temperature [3]	428	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	1.7E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	3.6E-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**
Flame Rating (0.031 in)	HB	--		UL 94

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	464 to 500	°F
Mold Temperature	176 to 194	°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