

Radilon® D HSUK 3010 BK

Radici Group High Performance Polymers - Polyamide 610

General Information

Product Description

PA610 injection moulding grade. Nucleated and lubricated, fast cycling. Improved UV resistance. Deep black colour.

Suitable for parts requiring high productivity, intended to resist to light exposure. This grade is partially renewably-sourced (64% of base polymer by weight).

General

Additive	<ul style="list-style-type: none"> Lubricant Nucleating Agent
Features	<ul style="list-style-type: none"> Fast Molding Cycle Lubricated Nucleated Renewable Resource Content UV Resistant
Agency Ratings	<ul style="list-style-type: none"> EU 2011/65/EC
RoHS Compliance	<ul style="list-style-type: none"> RoHS Compliant
Appearance	<ul style="list-style-type: none"> Black
Processing Method	<ul style="list-style-type: none"> Injection Molding
Resin ID (ISO 1043)	<ul style="list-style-type: none"> PA610

Properties¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.08	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.2	--	%	
Flow	1.0	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	3.2	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.4	--	%	
Biobased Carbon Content	64	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	348000	--	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	9430	--	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.5	--	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	40	--	%	ISO 527-2/1A/50
Flexural Modulus ²	319000	--	psi	ISO 178
Flexural Stress ²	12300	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
73°F	2.4	--	ft-lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	No Break	--		
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Af
264 psi, Unannealed	149	--	°F	
Melting Temperature ³	428	--	°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
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	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	446 to 500	°F
Mold Temperature	158 to 176	°F
Injection Rate	Moderate	

Notes

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

² 0.079 in/min

³ 10°C/min