Radilon® S RCP4015LK 333 BK

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 40% glass fibre and mineral filler reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring improved stiffness and dimensional stability, reduced shrinkage and low warpage.

General

Filler / Reinforcement	• Glass Fiber\Mineral, 40% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Good Dimensional Stability • Good Stiffness	• Heat Stabilized • Low Shrinkage	• Low Warpage
Agency Ratings	• EU 2011/65/EC		
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PA6-(GF+MX)40		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.48	--	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)				ISO 1133
235°C/5.0 kg	30	--	g/10 min	
Molding Shrinkage				ISO 294-4
Across Flow	0.50	--	%	
Flow	0.30	--	%	
Water Absorption				ISO 62
Saturation, 73°F, 0.0787 in	6.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 0.0787 in, 50% RH	1.6	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	1.38E+6	870000	psi	ISO 527-1/1A/1
Tensile Stress (Break)	16000	12300	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.4	3.0	%	ISO 527-2/1A/5
Flexural Modulus [2]	1.29E+6	798000	psi	ISO 178
Flexural Stress [2]	25400	19600	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F	19	21	ft·lb/in²	
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	401	--	°F	
Vicat Softening Temperature	410	--	°F	ISO 306/B50

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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature [3]	428	--	°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
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
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	0.15	%
Processing (Melt) Temp	482 to 554	°F
Mold Temperature	158 to 176	°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