Radilon® S RCW4015W 3733 BK

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 40% glass fibre and mineral reinforced injection moulding grade, heat stabilized. Black colour

Suitable for parts requiring high stiffness, good mechanical resistance and excellent heat ageing properties retention, good dimensional stability

General		
Filler / Reinforcement	• Glass Fiber\Mineral, 40% Filler by Weight	
Additive	• Heat Stabilizer	
Features	• Good Dimensional Stability • Heat Aging Resistant	• Heat Stabilized • High Stiffness
Uses	• Automotive Applications	
Agency Ratings	• EU 2011/65/EC	
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA6-(GF+MD)40	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.49	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.50	%	
Flow	0.20	%	
Viscosity Number (H2SO4 (Sulphuric Acid))	142	cm³/g	ISO 307
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.28E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	17400	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	%	ISO 527-2/1A/5
Flexural Modulus [2]	1.20E+6	psi	ISO 178
Flexural Stress [2]	27600	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.9	ft·lb/in²	
73°F	3.1	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	19	ft·lb/in²	
73°F	24	ft·lb/in²	
Notched Izod Impact Strength			ISO 180/1A
-22°F	2.4	ft·lb/in²	
73°F	2.6	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	392	°F	ISO 75-2/Bf

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/Af
264 psi, Unannealed	379	°F	
Melting Temperature [3]	428	°F	ISO 11357-3
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity (500 V)	1.0E+12	ohms	IEC 62631-3-2
Volume Resistivity (500 V)	1.0E+13	ohms·m	IEC 62631-3-1
Flammability	**Nominal Value**	**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	Nominal Value	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 536	°F
Mold Temperature	140 to 194	°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