

Radilon® S RCW4015UK 3726 BK

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 40% combination of glass fibre and specialty minerals, improved heat and UV, easy flow, injection moulding grade. Colour matched Black Colour

Suitable for parts requiring good, dimensional stability, reduced shrinkage and low warp repeated high temperature exposure intended to resist outdoor exposure.

General

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

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.49	g/cm ³	ISO 1183
Molding Shrinkage ²			ISO 294-4
Across Flow	0.50	%	
Flow	0.20	%	
Viscosity Index - Sulfuric Acid	3880	in ³ /lb	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.22E+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 ³	1.23E+6	psi	ISO 178
Flexural Stress ³	27600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.9	ft·lb/in ²	
73°F	2.9	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	22	ft·lb/in ²	
73°F	23	ft·lb/in ²	
Notched Izod Impact Strength			ISO 180/1A
-22°F	1.9	ft·lb/in ²	
73°F	2.8	ft·lb/in ²	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	401	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	383	°F	ISO 75-2/Af
Melting Temperature ⁴	428	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	7.0E-6	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	1.1E-4	in/in/°F	ISO 11359-2

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.

² 280°C Melt Temperature/ 90°C Mold Temperature/ 60 MPa Cavity Pressure

³ 0.079 in/min

⁴ 10°C/min