

Radilon® S RCW4015W 3720 BK

Radici Group High Performance Polymers - Polyamide 6

General Information

Product Description

PA6 40% combination of glass fibre and specialty minerals, improved heat stability, easy flow, injection moulding grade. deep black colour

Suitable for parts requiring; good dimensional stability, reduced shrinkage, low warp after exposure to repeated high temperature cycle.

General

Filler / Reinforcement	• Glass Fiber\Mineral, 40% Filler by Weight
Additive	• Heat Stabilizer
Features	• Good Dimensional Stability • Low Shrinkage • Heat Stabilized • Low Warpage
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)	16800	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	%	ISO 527-2/1A/5
Flexural Modulus ³	1.13E+6	psi	ISO 178
Flexural Stress ³	26800	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.3	ft·lb/in ²	
73°F	3.8	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	21	ft·lb/in ²	
73°F	22	ft·lb/in ²	
Notched Izod Impact Strength			ISO 180/1A
-22°F	2.4	ft·lb/in ²	
73°F	2.9	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	397	°F	ISO 75-2/Bf

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	376	°F	ISO 75-2/Af
Melting Temperature ⁴	428	°F	ISO 11357-3

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