

Technical Data Sheet



QR Resin QR-4100-GF20

Polyphenylene Ether + PS
Engineering Plastics

General			
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Good Stiffness	• High Heat Resistance	
Appearance	• Black	• Colors Available	
Forms	• Pellets		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.20	1.20 g/cm ³	ASTM D792
Molding Shrinkage - Flow (0.125 in (3.18 mm))	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	13000 psi	89.6 MPa	ASTM D638
Tensile Elongation (Break)	5.0 %	5.0 %	ASTM D638
Flexural Modulus	750000 psi	5170 MPa	ASTM D790
Flexural Strength (Yield)	20000 psi	138 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
-22°F (-30°C)	1.8 ft·lb/in	96 J/m	
73°F (23°C)	2.0 ft·lb/in	110 J/m	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	290 °F	143 °C	
264 psi (1.8 MPa), Unannealed	275 °F	135 °C	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	225 °F	107 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Drying Time, Maximum	4.0 hr	4.0 hr
Rear Temperature	510 to 580 °F	266 to 304 °C
Middle Temperature	520 to 590 °F	271 to 310 °C
Front Temperature	560 to 600 °F	293 to 316 °C
Nozzle Temperature	560 to 600 °F	293 to 316 °C
Processing (Melt) Temp	560 to 600 °F	293 to 316 °C
Mold Temperature	170 to 220 °F	77 to 104 °C

Notes

These are typical property values not to be construed as specification limits.