Technical Data Sheet

QR Resin QR-4100-GF20

Polyphenylene Ether + PS
Engineering Plastics

General		
Material Status	• Commercial: Active	
Availability	• North America	
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/cm³	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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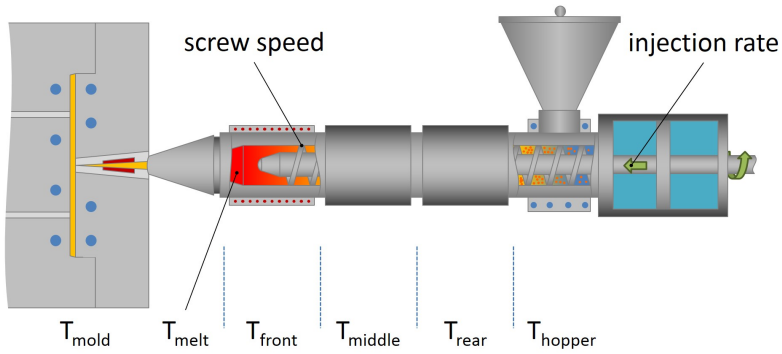

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	225 °F	107 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Drying Time, Maximum	4.0 hr	4.0 hr
Rear Temperature	510 to 580 °F	266 to 304 °C
Middle Temperature	520 to 590 °F	271 to 310 °C
Front Temperature	560 to 600 °F	293 to 316 °C
Nozzle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

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