



Technical Data Sheet

# QR Resin QR-4000-(S)

Polyphenylene Ether + PA 66  
Engineering Plastics

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Chemical Resistant • Ductile	• Good Dimensional Stability • Good Thermal Stability	• Paintable
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.09	1.09 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (280°C/2.16 kg)	9.0 g/10 min	9.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in (3.18 mm))	0.010 in/in	1.0 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	8000 psi	55.2 MPa	ASTM D638
Tensile Elongation (Break)	50 %	50 %	ASTM D638
Flexural Modulus	300000 psi	2070 MPa	ASTM D790
Flexural Strength (Yield)	12500 psi	86.2 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	1.5 ft·lb/in	80 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed	310 °F	154 °C	ASTM D648

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	200 to 225 °F	93 to 107 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Drying Time, Maximum	6.0 hr	6.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Rear Temperature	500 to 570 °F	260 to 299 °C
Middle Temperature	510 to 570 °F	266 to 299 °C
Front Temperature	520 to 570 °F	271 to 299 °C
Nozzle Temperature	530 to 570 °F	277 to 299 °C
Processing (Melt) Temp	530 to 570 °F	277 to 299 °C
Mold Temperature	150 to 200 °F	66 to 93 °C

**Notes**

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