

Technical Data Sheet

QR Resin QR-4000

Polyphenylene Ether + PS + PA
Engineering Plastics

General		
Features	• Chemical Resistant	• Paintable
Automotive Specifications	• CHRYSLER MS-DB-414 CPN3387 Color: GY Black	
Appearance	• Black	• Grey
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.08	1.08 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (280°C/2.16 kg)	4.0 g/10 min	4.0 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
Flexural Modulus	300000 psi	2070 MPa	ASTM D790
Flexural Strength (Yield)	12500 psi	86.2 MPa	ASTM D790

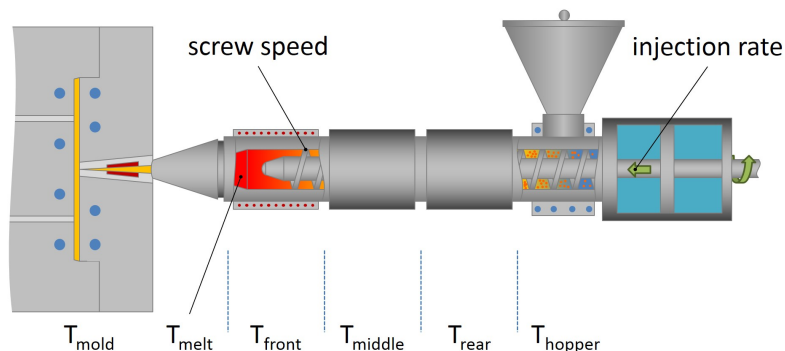
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	3.5 ft·lb/in	190 J/m	ASTM D256

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	255 °F	124 °C	

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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	480 to 530 °F	249 to 277 °C
Middle Temperature	490 to 540 °F	254 to 282 °C
Front Temperature	500 to 550 °F	260 to 288 °C
Nozzle Temperature	520 to 560 °F	271 to 293 °C
Processing (Melt) Temp	510 to 550 °F	266 to 288 °C
Mold Temperature	150 to 200 °F	66 to 93 °C

Notes

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