

Technical Data Sheet

## QR Resin QR-4100-GF10

Polyphenylene Ether + PS  
Engineering Plastics

| General                |                                     |                        |
|------------------------|-------------------------------------|------------------------|
| Filler / Reinforcement | • Glass Fiber, 10% 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 | 1.14                    | 1.14 g/cm <sup>3</sup> | ASTM D792   |

| Mechanical                 | Nominal Value (English) | Nominal Value (SI) | Test Method |
|----------------------------|-------------------------|--------------------|-------------|
| Tensile Strength (Yield)   | 8500 psi                | 58.6 MPa           | ASTM D638   |
| Tensile Elongation (Break) | 5.0 %                   | 5.0 %              | ASTM D638   |
| Flexural Modulus           | 500000 psi              | 3450 MPa           | ASTM D790   |
| Flexural Strength          | 13500 psi               | 93.1 MPa           | ASTM D790   |

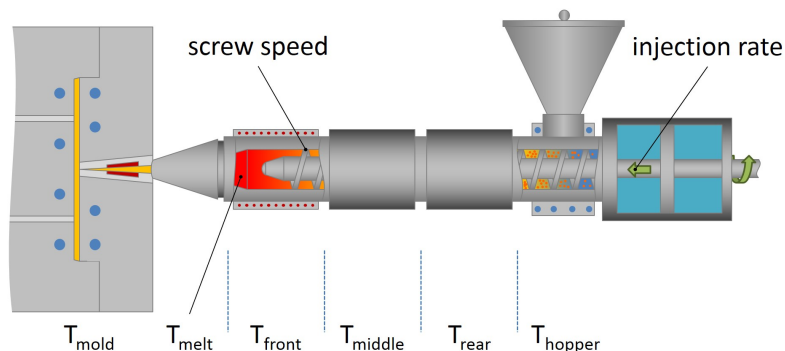
| Impact                            | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------------|-------------------------|--------------------|-------------|
| Notched Izod Impact (73°F (23°C)) | 1.4 ft-lb/in            | 75 J/m             | ASTM D256   |

| Thermal                                                            | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--------------------------------------------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load<br>264 psi (1.8 MPa), Unannealed | 120 °F                  | 48.9 °C            | ASTM D648   |

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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.