

Technical Data Sheet

QR Resin QR-4165

Polyphenylene Ether + PS
Engineering Plastics

Product Description

Flame Package available as: 94V-0 (0.24")/ 94V-1 (0.0625")

General

| | |
|-------------------|---|
| Material Status | • Commercial: Active |
| Availability | • North America |
| Features | • Flame Retardant • Good Toughness |
| 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/cm ³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (280°C/2.16 kg) | 10 g/10 min | 10 g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (0.125 in (3.18 mm)) | 6.0E-3 in/in | 0.60 % | ASTM D955 |

| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|------------|-------------------------|--------------------|-------------|
|------------|-------------------------|--------------------|-------------|

| | | | |
|---------------------------|------------|----------|-----------|
| Tensile Strength (Yield) | 9000 psi | 62.1 MPa | ASTM D638 |
| Flexural Modulus | 360000 psi | 2480 MPa | ASTM D790 |
| Flexural Strength (Yield) | 14000 psi | 96.5 MPa | ASTM D790 |

| Impact | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--------|-------------------------|--------------------|-------------|
|--------|-------------------------|--------------------|-------------|

| | | | |
|---------------------|--------------|---------|-----------|
| Notched Izod Impact | | | ASTM D256 |
| -20°F (-29°C) | 1.8 ft·lb/in | 96 J/m | |
| 73°F (23°C) | 3.0 ft·lb/in | 160 J/m | |

| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---------|-------------------------|--------------------|-------------|
|---------|-------------------------|--------------------|-------------|

| | | | |
|-----------------------------------|--------|--------|-----------|
| Deflection Temperature Under Load | | | ASTM D648 |
| 66 psi (0.45 MPa), Unannealed | 285 °F | 141 °C | |
| 264 psi (1.8 MPa), Unannealed | 250 °F | 121 °C | |

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| Injection | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature | 220 to 235 °F | 104 to 113 °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 | 380 to 400 °F | 193 to 204 °C |
| Middle Temperature | 420 to 440 °F | 216 to 227 °C |
| Front Temperature | 460 to 480 °F | 238 to 249 °C |
| Nozzle Temperature | 460 to 480 °F | 238 to 249 °C |
| Processing (Melt) Temp | 440 to 480 °F | 227 to 249 °C |
| Mold Temperature | 150 to 200 °F | 66 to 93 °C |

Notes

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