

# Ryton® QC200N

## polyphenylene sulfide

Ryton® PPS Fiber Grade Resins are high molecular weight polyphenylene sulfide polymers suitable for monofilament

and/or multifilament fiber extrusion. They exhibit excellent thermal stability and chemical resistance.

### General

|                   |                                                  |                                    |
|-------------------|--------------------------------------------------|------------------------------------|
| Material Status   | • Commercial: Active                             |                                    |
| Availability      | • Asia Pacific<br>• Europe                       | • Latin America<br>• North America |
| Features          | • Chemical Resistant<br>• Good Thermal Stability | • High Molecular Weight            |
| Uses              | • Fibers                                         |                                    |
| RoHS Compliance   | • RoHS Compliant                                 |                                    |
| Forms             | • Powder                                         |                                    |
| Processing Method | • Filament Extrusion                             |                                    |

### Physical

|                                                       | Typical Value | Unit     | Test method |
|-------------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                            | 1.35          |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) <sup>1</sup> (316°C/5.0 kg) | 100           | g/10 min | ASTM D1238  |
| Water Absorption (Equilibrium)                        | 0.050         | %        | ASTM D570   |
| Ash Content                                           | 0.3           | wt%      | ISO 3451-1  |
| Volatiles (150°C)                                     | < 0.3         | wt%      |             |

### Mechanical

|                            | Typical Value | Unit | Test method |
|----------------------------|---------------|------|-------------|
| Tensile Strength           | 85.0          | MPa  | ASTM D638   |
| Tensile Elongation (Break) | 10            | %    | ASTM D638   |

### Thermal

|                                                          | Typical Value | Unit     | Test method |
|----------------------------------------------------------|---------------|----------|-------------|
| Deflection Temperature Under Load<br>1.8 MPa, Unannealed | 105           | °C       | ASTM D648   |
| Melting Temperature                                      | 285           | °C       | ISO 11357-3 |
| CLTE - Flow (-50 to 50°C)                                | 5.0E-5        | cm/cm/°C | ASTM E831   |

### Electrical

|                                   | Typical Value | Unit    | Test method |
|-----------------------------------|---------------|---------|-------------|
| Volume Resistivity                | 1.0E+16       | ohms-cm | ASTM D257   |
| Dielectric Strength               | 24            | kV/mm   | ASTM D149   |
| Dielectric Constant (25°C, 1 MHz) | 3.20          |         | ASTM D150   |
| Dissipation Factor (25°C, 1 MHz)  | 2.0E-3        |         | ASTM D150   |

### Optical

|                  | Typical Value | Unit |
|------------------|---------------|------|
| Color L - Hunter | 90.00         |      |

### Additional Information

|                                | Typical Value | Unit |
|--------------------------------|---------------|------|
| Weight Loss on Heating (300°C) | < 0.50        | wt%  |

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## Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Procedure B



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