

Ryton® XE5030BL

polyphenylene sulfide alloy

Ryton® XE5030BL 30% glass fiber reinforced polyphenylene sulfide alloy compound provides high ductility and impact resistance along with good thermal stability.

General

| | | | |
|------------------------|-------------------------------------|--------------------------|--------------------------|
| Material Status | • Commercial: Active | | |
| Availability | • Asia Pacific | • Latin America | • North America |
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight | | |
| Features | • Ductile | • Good Thermal Stability | • High Impact Resistance |
| Uses | • Industrial Applications | | |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Black | | |
| Forms | • Pellets | | |

| Physical | Typical Value | Unit | Test method |
|--------------------------------|---------------|-------|-------------|
| Specific Gravity | 1.51 | | ASTM D792 |
| Molding Shrinkage | | | |
| Flow : 0.126 in | 2.0E-3 | in/in | |
| Across Flow : 0.126 in | 6.0E-3 | in/in | |
| Water Absorption (73°F, 24 hr) | 0.050 | % | ASTM D570 |

| Mechanical | Typical Value | Unit | Test method |
|----------------------------|---------------|------|------------------------|
| Tensile Strength | | | |
| -- | 19000 | psi | ASTM D638 |
| -- | 19600 | psi | ISO 527-2 |
| Tensile Elongation (Break) | 2.0 | % | ASTM D638 ISO 527-2 |
| Flexural Modulus | | | |
| -- | 1.30E+6 | psi | ASTM D790 |
| -- | 1.31E+6 | psi | ISO 178 |
| Flexural Strength | | | |
| -- | 28000 | psi | ASTM D790 |
| -- | 29000 | psi | ISO 178 |
| Compressive Strength | 30500 | psi | ASTM D695 |
| Poisson's Ratio | 0.38 | | ISO 527 |

| Impact | Typical Value | Unit | Test method |
|-----------------------|---------------|-----------------------|-------------|
| Notched Izod Impact | | | |
| 0.125 in | 1.8 | ft·lb/in | ASTM D256 |
| -- | 4.5 | ft·lb/in ² | ISO 180/A |
| Unnotched Izod Impact | | | |
| 0.125 in | 13 | ft·lb/in | ASTM D4812 |
| -- | 21 | ft·lb/in ² | ISO 180 |

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| Hardness | Typical Value | Unit | Test method |
|-------------------|----------------------|-------------|--------------------|
| Rockwell Hardness | | | ASTM D785 |
| M-Scale | 86 | | |
| R-Scale | 110 | | |

| Thermal | Typical Value | Unit | Test method |
|-----------------------------------|----------------------|-------------------------------|--------------------|
| Deflection Temperature Under Load | | | ASTM D648 |
| 264 psi, Unannealed | 482 | °F | |
| CLTE | | | ASTM E831 |
| Flow : -58 to 122°F | 1.1E-5 | in/in/°F | |
| Flow : 212 to 392°F | 5.6E-6 | in/in/°F | |
| Transverse : -58 to 122°F | 3.1E-5 | in/in/°F | |
| Transverse : 212 to 392°F | 5.0E-5 | in/in/°F | |
| Thermal Conductivity | 1.9 | Btu·in/hr/ft ² /°F | |
| UL Temperature Rating | 266 | °F | UL 746B |

| Electrical | Typical Value | Unit | Test method |
|--|----------------------|-------------|--------------------|
| Surface Resistivity | 1.0E+16 | ohms | ASTM D257 |
| Volume Resistivity | 1.0E+15 | ohms·cm | ASTM D257 |
| Dielectric Strength | 560 | V/mil | ASTM D149 |
| Dielectric Constant | | | ASTM D150 |
| 77°F, 1 kHz | 3.80 | | |
| 77°F, 1 MHz | 3.70 | | |
| Dissipation Factor | | | ASTM D150 |
| 77°F, 1 kHz | 3.0E-3 | | |
| 77°F, 1 MHz | 9.0E-3 | | |
| Arc Resistance | 124 | sec | ASTM D495 |
| Comparative Tracking Index (CTI) | 100 | V | UL 746 |
| Insulation Resistance ¹ (194°F) | 1.0E+11 | ohms | |

| Flammability | Typical Value | Unit | Test method |
|------------------------|----------------------|-------------|--------------------|
| Flame Rating (0.06 in) | V-0 | | UL 94 |
| Oxygen Index | 34 | % | ASTM D2863 |

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Notes

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

¹ 95%RH, 48 hr

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