# Ratron® 250G4

Polyethersulfone

Asia International Enterprise (Hong Kong) Limited

## Message:

Polyethersulfone (PES) is a amorphous high heat resistance engineering polymer. It is transparency, outstanding hydrolysis resistance, inherent flame retardancy, excellent resistance to a broad range of chemicals and low smoke, can withstand high temperatures under load, and provides stable performances under extreme temperature changes. This overall outstanding performance material can be used in electronic/electrical, food and tableware, military, automotive, aerospace, and medical fields.

| General Information | | | |
|---|---|---|---|
| Filler / Reinforcement | Glass Fiber,20% Filler by Weight | | |
| Features | Amorphous<br>Flame Retardant<br>Good Chemical Resistance<br>High Clarity<br>High Heat Resistance<br>Hydrolysis Resistant<br>Low Smoke Emission | | |
| Uses | Aerospace Applications<br>Automotive Applications<br>Electrical/Electronic Applications<br>Medical/Healthcare Applications<br>Military Applications<br>Non-specific Food Applications | | |
| Agency Ratings | EU Food Contact, Unspecified Rating<br>FDA Food Contact, Unspecified Rating | | |
| Forms | Pellets | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Density | 1.53 | g/cm³ | ISO 1183 |
| Molding Shrinkage | | | ISO 294-4 |
| Across Flow | 0.60 | % | |
| Flow | 0.40 | % | |
| Water Absorption (Saturation, 23°C) | 0.40 | % | ISO 62 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness (R-Scale) | 112 | | ISO 2039-2 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Stress (Yield) | 120 | MPa | ISO 527-2/1270 |
| Tensile Strain (Break) | 2.8 | % | ISO 527-2/50 |

| | | | |
|---|---|---|---|
| Flexural Modulus [1] | 6500 | MPa | ISO 178 |
| Flexural Stress [2] | 180 | MPa | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact Strength | 9.0 | kJ/m² | ISO 180 |
| Unnotched Izod Impact Strength | 51 | kJ/m² | ISO 180 |
| Thermal | Nominal Value | Unit | Test Method |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 212 | °C | ISO 75-2/A |
| Vicat Softening Temperature | 225 | °C | ISO 306/B50 |
| CLTE - Flow (-20 to 150°C) | 3.4E-4 | cm/cm/°C | ISO 11359-2 |
| Thermal Conductivity | 0.31 | W/m/K | ISO 8302 |
| Electrical | Nominal Value | Unit | Test Method |
| Volume Resistivity | > 1.0E+16 | ohms·cm | IEC 60093 |
| Electric Strength (in Oil) | 15 | kV/mm | IEC 60243-1 |
| Dielectric Constant (1 MHz) | 3.90 | | IEC 60250 |
| Dissipation Factor (1 MHz) | 7.0E-3 | | IEC 60250 |
| Comparative Tracking Index | 125 | V | IEC 60112 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (1.60 mm) | V-0 | | UL 94 |
| NOTE | | | |
| 1. | 2.0 mm/min | | |
| 2. | 2.0 mm/min | | |



## Recommended distributors for this material

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