# PEI-SG201PF10
## Polyetherimide (PEI)

TECHNICAL DATA SHEET

## Description

Sciengy® PEI-SG201PF10 is a 20% glass fiber and 10% PTFE reinforced amorphous polyetherimide (PEI) resin with excellent wear resistance at high glass transition temperature (Tg) of 217 ° C.

Wear Resistant, Natural, Balck

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|---|---|
| **Series** | Special Functional |
| **ISO Designation** | >PEI+PTFE-GF20< |
| **Process Method** | Injection molding |

## Properties

| **Physical** | **Value** | **Units** | **Test Standard** |
|---|---|---|---|
| Density | 1.46 | g/cm³ | ISO 1183 |
| Mold Shrinkage | 0.3-0.5 | % | ISO 2577, 294-4 |
| Melt Flow Rate (337℃. 6.6Kg) | 8 | g/10min | ISO 1133 |
| Water Absorption (24h @23°C) | 0.25 | % | ISO 62 |
| **Mechanical** | **Value** | **Units** | **Test Standard** |
| Tensile Stress at Break (5 mm/min) | 120 | MPa | ISO 527 |
| Tensile Modulus at Break (1 mm/min) | 6.5 | GPa | ISO 527 |
| Elongation at Break (23℃) | 3.5 | % | ISO 527 |
| Flexural Modulus at Break (23℃) | 6.0 | GPa | ISO 178 |
| Flexural Strength at Break (23℃) | 180 | MPa | ISO 178 |
| Notched Izod Impact Strength @23℃ (V-notched) | 8.0 | kJ/m² | ISO 180 |
| **Thermal** | **Value** | **Units** | **Test Standard** |
| Glass transition Temp.(10℃/min) | 217 | °C | ISO 11357 |
| Heat Deflection Temp. High Load (1.8 MPa) | 205 | °C | ISO 75 |
| Coeff. Of Linear Them. Expansion (parallel) | 0.25 | E-4/°C | ISO 11359-2 |
| Coeff. Of Linear Them. Expansion (normal) | 0.35 | E-4/°C | ISO 11359-2 |
| Flammability (0.3 mm) | V-0 | Class | UL-94 |
| Flammability (3.0 mm) | V-0 | Class | UL-94 |
| **Electrical Properties** | **Value** | **Units** | **Test Standard** |

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|---|---|---|---|
| Dielectric Strength (60*60*1mm³) | 25 | KV/mm | IEC 60243 |
| Relative Permittivity (1MHz) | 3.5 | / | IEC 60250 |
| Dissipation Factor (1MHz) | 0.0045 | / | IEC 60250 |
| Volume Resistivity | 10^15 | Ω·cm | IEC 60093 |
| Surface Resistivity | 10^15 | Ω | IEC 60093 |
| CTI | 150 | V | IEC 60112 |
| **Typical Processing Conditions** | **Value** | **Units** | **Test Standard** |
| Drying Temp. / Time | 150℃&4~6h | / | / |
| Injection Speed | Moderate to High | / | / |
| Injection Molding Melt Temp. | 350~400 | °C | / |
| Injection Molding Mold Temp. | 140~180 | °C | / |

## Disclaimer

Please refer to Material Safety Data before using this product, The information contained in this data sheet is based on tests of research of Sciengy New Materials Co,.Ltd(Sciengy). The user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the users specific application. Sciengy no warranty is given concerning the accuracy or completeness thereof.