

# Paryls® PPSU K1565

Polyphenylsulfone

Youju New Materials Co., Ltd.

## Message:

PARYLS® PPSU K1565 pellets are supplied in cartons lining aluminum foil bag, which can be stored indefinitely, provided the packaging remains undamaged.

PARYLS® PPSU K1565 pellets absorb moisture very rapidly. Therefore, the pellets need to be dried at least 6h at 180 °C in a vacuum or dry air drier prior to processing.

| General Information |                   |  |  |
|---------------------|-------------------|--|--|
| UL YellowCard       | E472927-102108523 |  |  |
| Forms               | Particle          |  |  |
| Processing Method   | Extrusion         |  |  |
|                     | Injection molding |  |  |

| Physical                                     | Nominal Value | Unit              | Test Method         |
|----------------------------------------------|---------------|-------------------|---------------------|
| Density                                      | 1.29          | g/cm <sup>3</sup> | ISO 1183            |
| Melt Mass-Flow Rate (MFR) (365°C/5.0 kg)     | 60 - 80       | g/10 min          | ISO 1133            |
| Molding Shrinkage                            |               |                   | ISO 294-4, ISO 2577 |
| Transverse flow                              | 1.0           | %                 | ISO 294-4, ISO 2577 |
| Flow                                         | 0.90          | %                 | ISO 294-4, ISO 2577 |
| Water Absorption (Equilibrium, 23°C, 50% RH) | 0.35          | %                 | ISO 62              |

| Mechanical             | Nominal Value | Unit | Test Method |
|------------------------|---------------|------|-------------|
| Tensile Modulus        | 2270          | MPa  | ISO 527-2   |
| Tensile Stress         | 70.0          | MPa  | ISO 527-2   |
| Tensile Strain (Yield) | 7.8           | %    | ISO 527-2   |
| Flexural Modulus       | 2400          | MPa  | ISO 178     |
| Flexural Stress        | 105           | MPa  | ISO 178     |

| Impact              | Nominal Value | Unit              | Test Method |
|---------------------|---------------|-------------------|-------------|
| Notched Izod Impact | 68            | kJ/m <sup>2</sup> | ISO 180/A   |

| Thermal                                           | Nominal Value | Unit     | Test Method      |
|---------------------------------------------------|---------------|----------|------------------|
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 196           | °C       | ISO 75-2/A       |
| Glass Transition Temperature <sup>1</sup>         | 220           | °C       | ISO 11357-2, DSC |
| CLTE - Flow (23°C)                                | 5.5E-5        | cm/cm/°C | ISO 11359-2      |

| Electrical                       | Nominal Value | Unit      | Test Method |
|----------------------------------|---------------|-----------|-------------|
| Surface Resistivity <sup>2</sup> | > 1.0E+15     | ohms      | IEC 60093   |
| Volume Resistivity <sup>3</sup>  | > 1.0E+15     | ohms · cm | IEC 60093   |
| Dielectric Strength <sup>4</sup> | 44            | kV/mm     | IEC 60243-1 |
| Dielectric Constant              |               |           | IEC 60250   |
| 100 Hz                           | 3.80          |           | IEC 60250   |

|                            |                                     |      |             |
|----------------------------|-------------------------------------|------|-------------|
| 1 MHz                      | 3.70                                |      | IEC 60250   |
| Dissipation Factor         |                                     |      | IEC 60250   |
| 100 Hz                     | 1.5E-3                              |      | IEC 60250   |
| 1 MHz                      | 8.6E-3                              |      | IEC 60250   |
| Comparative Tracking Index | 150                                 | V    | IEC 60112   |
| Flammability               | Nominal Value                       | Unit | Test Method |
| Flame Rating (1.5 mm)      | V-0                                 |      | UL 94       |
| Injection                  | Nominal Value                       | Unit |             |
| Drying Temperature         | 180                                 | °C   |             |
| Drying Time                | 6.0                                 | hr   |             |
| Processing (Melt) Temp     | 350 - 390                           | °C   |             |
| Mold Temperature           | 140 - 180                           | °C   |             |
| Extrusion                  | Nominal Value                       | Unit |             |
| Drying Temperature         | 180                                 | °C   |             |
| Drying Time                | 6.0                                 | hr   |             |
| Melt Temperature           | 350 - 390                           | °C   |             |
| Die Temperature            | 140 - 180                           | °C   |             |
| NOTE                       |                                     |      |             |
| 1.                         | 10°C/min                            |      |             |
| 2.                         | 100V                                |      |             |
| 3.                         | 100V                                |      |             |
| 4.                         | K20/K20, (60*60*1 mm <sup>3</sup> ) |      |             |

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