

CZ-2065-H1

- **Product Summary:** CZ-2065-H1 is a carbon fiber reinforced PPS compound with the highest thermal / electric conductivity within DIC.PPS portfolio.
- **Color:** Black

| Engineering Properties | | | |
|---|-------------------------|-----------------------|--|
| Properties | Test Method | Unit | Typical value |
| General Information | | | CF/Filler Thermal / electrical conductivity |
| Physical | | | |
| Density | ISO 1183-1 | g/cm ³ | 1.81 |
| Water absorption, 23°C /24hrs. | ISO 62 | % | 0.01 |
| Mold shrinkage ^a | ISO 294-4 | % | 0.1/0.3 |
| Mechanical | | | |
| Tensile strength | ISO 527-1,2 | MPa | 75 |
| Tensile modulus | ISO 527-1,2 | GPa | 43 |
| Tensile strain at break | ISO 527-1,2 | % | 0.1 |
| Flexural strength | ISO 178 | MPa | 125 |
| Flexural modulus | ISO 178 | GPa | 41 |
| Flexural strain at flexural strength | ISO 178 | % | 0.3 |
| Charpy impact strength, notched | ISO 179/1eA | kJ/m ² | 1 |
| unnotched | ISO 179/1eU | kJ/m ² | 3 |
| Co-eff. of friction ^b , static/dynamic | - | - | - / - |
| Thermal | | | |
| Temperature of deflection under load, 1.80MPa | ISO 75-1,2 | °C | 270 |
| Co-eff. of linear thermal expansion ^a , -50~50 °C | ISO 11359-2 | x 10 ⁻⁵ /K | 0.1/2.0 |
| Co-eff. of linear thermal expansion ^a , 100~200 °C | ISO 11359-2 | x 10 ⁻⁵ /K | 0.5/4.0 |
| Flammability ^c /thickness (mm) | UL-94 | - | - |
| Thermal conductivity | HotDisk method | W/m·K | 9.5 |
| Electrical | | | |
| Electric strength, t=1.0mm | IEC 60243-1 | kV/mm | - |
| Relative permittivity, 1MHz | IEC 62631-2-1 | - | - |
| Dielectric dissipation factor, 1MHz | IEC 62631-2-1 | - | - |
| Comparative Tracking Index (CTI) | IEC 60112 | V | - |
| Volume resistivity | Four-point probe Method | Ω·cm | 10 ⁻¹ |
| Molding Condition | | | |
| Cylinder temperature | - | °C | 300-340 |
| Mold temperature | - | °C | 130-180 |

a: Flow direction/Transverse direction

b: P=150kPa, V=0.3m/s, PPS vs. carbon steel

c: Own data