

FZ-4020-A1 BLACK-U

- **Product Summary:** FZ-4020-A1 BLACK-U is a 40% glass fiber reinforced low halogen type of PPS compound with superior solder heat resistance.
- **Color:** Black

Engineering Properties of DIC.PPS FZ-4020-A1 BLACK-U

| Properties | Test Method | Unit | FZ-4020-A1 BLACK-U |
|--|---------------|-----------------------|-----------------------|
| General Information | | | GF40% Cl;<900ppm |
| Physical | | | |
| Density | ISO 1183-1 | g/cm ³ | 1.62 |
| Water absorption, 23 ° C /24hrs. | ISO 62 | % | 0.08 |
| Mold shrinkage a | ISO 294-4 | % | 0.3/0.7 |
| Mechanical | | | |
| Tensile strength | ISO 527-1,2 | MPa | 195 |
| Tensile modulus | ISO 527-1,2 | GPa | 15.0 |
| Tensile strain at break | ISO 527-1,2 | % | 1.7 |
| Flexural strength | ISO 178 | MPa | 290 |
| Flexural modulus | ISO 178 | GPa | 14.5 |
| Flexural strain at flexural strength | ISO 178 | % | 2.0 |
| Charpy impact strength, notched | ISO 179/1eA | kJ/m ² | 8 |
| unnotched | ISO 179/1eU | kJ/m ² | 45 |
| 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 | 1.5/4.5 |
| Co-eff. of linear thermal expansion ^a , 100~200 ° C | ISO 11359-2 | x 10 ⁻⁵ /K | 1.5/12.0 |
| Flammability ^b /thickness (mm) | UL 94 | - | V-0/5.0 |
| Electrical | | | |
| Electric strength, t=1.0mm | IEC 60243-1 | kV/mm | 25 |
| Relative permittivity, 1MHz | IEC 62631-2-1 | - | 4 |
| Dielectric dissipation factor, 1MHz | IEC 62631-2-1 | - | 0.004 |
| Comparative Tracking Index (CTI) | IEC 60112 | V | 200 |
| Volume resistivity | IEC 62631-3-1 | Ω · cm | 10 ¹⁶ |
| Molding Condition | | | |
| Cylinder temperature | - | °C | 320-350 |
| Mold temperature | - | °C | 130-150 |

a: Flow direction/Transverse direction
b: UL file No. E53829