

September, 2023

FZ-3600-R5 BLACK-U, FZ-3600-R5 BLACK-U1

■ Product Summary: FZ-3600-R5-U/-U1 is a glass fiber and mineral filled branched PPS compound with excellent hydrolytic stability for use in applications exposed to hot water or engine coolant.

■ Color: Black

Engineering Properties

| Engineering i Toperties | | | |
|---|---------------|-----------------------|-----------------------------------|
| Properties | Test Method | Unit | Typical value |
| General Information | | | GF/Filler Hydrolytic stability |
| Physical | | | |
| Density | ISO 1183-1 | g/cm³ | 1.96 |
| Water absorption, 23°C/24Hrs. | ISO 62 | % | 0.01 |
| Mold shrinkage ^a | ISO 294-4 | % | 0.3/0.6 |
| Mechanical | | | |
| Tensile strength | ISO 527-1,2 | MPa | 155 |
| Tensile modulus | ISO 527-1,2 | GPa | 21.0 |
| Tensile strain at break | ISO 527-1,2 | % | 1.0 |
| Flexural strength | ISO 178 | MPa | 235 |
| Flexural modulus | ISO 178 | GPa | 20.0 |
| Flexural strain at flexural strength | ISO 178 | % | 1.3 |
| Charpy impact strength, | | | |
| notched | ISO 179/1eA | kJ/m² | 7 |
| unnotched | ISO 179/1eU | kJ/m² | 22 |
| Co-eff. of friction b, static/dynamic | - | - | 0.35/0.35 |
| Thermal | | | |
| Temperature of deflection under load, 1.80MPa | ISO 75-1,2 | °C | 275 |
| Co-eff. of linear thermal expansion a, -50~50 °C | ISO 11359-2 | x 10 ⁻⁵ /K | 1.5/2.5 |
| Co-eff. of linear thermal expansion a, 100~200 °C | ISO 11359-2 | x 10 ⁻⁵ /K | 1.5/7.0 |
| Flammability ^c /thickness (mm) | UL-94 | - | V-0/0.40 |
| Electrical | | | |
| Electric strength, t=1.0mm | IEC 60243-1 | kV/mm | 21 |
| Relative permittivity, 1MHz | IEC 62631-2-1 | - | 5 |
| Dielectric dissipation factor, 1MHz | IEC 62631-2-1 | - | 0.002 |
| Comparative Tracking Index (CTI) | IEC 60112 | V | 200 |
| Volume resistivity | IEC 62631-3-1 | Ω·cm | 10 ¹⁶ |
| Molding Condition | | | |
| Cylinder temperature | - | °C | 300-340 |
| Mold temperature | - | °C | 130-150 |

a: Flow direction/Transverse direction

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

c: UL file No. E53829