



September, 2023

FZL-4033-U, FZL-4033 BLACK-U

■ Product Summary: FZL-4033-U is a glass fiber and polytetrafluoroethylene filled PPS compound with low friction and wear properties.

■ Color: Black and Natural (Brown).

Engineering Properties

| Properties | Test Method | Unit | Typical value |
|---|---|--|---|
| General Information | | | GF30%, PTFE Lubricant |
| Physical | | | |
| Density Water absorption, 23°C /24hrs. Mold shrinkage ^a | ISO 1183-1 ISO 62 ISO 294-4 | g/cm³ % % | 1.69 0.02 0.3/0.7 |
| Mechanical | | | |
| Tensile strength Tensile modulus Tensile strain at break Flexural strength Flexural modulus Flexural strain at flexural strength Charpy impact strength, notched unnotched Co-eff. of friction b, static/dynamic Thermal | ISO 527-1,2 ISO 527-1,2 ISO 527-1,2 ISO 178 ISO 178 ISO 178 | MPa GPa % MPa GPa % kJ/m² kJ/m² | 160 13.5 1.6 240 13.0 1.9 10 40 0.22/0.22 |
| | ISO 75-1,2 | °C | 270 |
| Temperature of deflection under load, 1.80MPa Co-eff. of linear thermal expansion a, -50~50 °C Co-eff. of linear thermal expansion a, 100~200 °C Flammability c/thickness (mm) | ISO 11359-2 ISO 11359-2 UL-94 | x 10 ⁻⁵ /K x 10 ⁻⁵ /K - | 1.5/4.5 1.5/11.0 V-0/0.75 |
| Electrical | | | |
| Electric strength, t=1.0mm Relative permittivity, 1MHz Dielectric dissipation factor, 1MHz Comparative Tracking Index (CTI) Volume resistivity | IEC 60243-1 IEC 62631-2-1 IEC 62631-2-1 IEC 60112 IEC 62631-3-1 | kV/mm - - V Ω·cm | 26 4 0.004 175 10 ¹⁶ |
| Molding Condition | | | |
| Cylinder temperature Mold temperature | - | °C °C | 290-320 130-150 |

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