

# Primef® 7002/0000-U, 7002/0005-U, 7002/9000-U

- **Product Summary:** Primef® 7002 is a glass fiber and mineral filled linear PPS compound for general purpose with excellent mechanical properties and processability.
- **Color:** Black (7002/9000-U)  
Natural (7002/0000-U and 7002/0005-U: lubricated)

## Engineering Properties

| Properties  | Test Method   | Unit                  | Typical value      |
|---|---------------|-----------------------|--------------------|
| General Information   |               |                       | GF/Filler Standard |
| <b>Physical</b>   |               |                       |                    |
| Density   | ISO 1183-1    | g/cm <sup>3</sup>     | 1.96               |
| Water absorption, 23°C /24hrs.                                | ISO 62        | %                     | 0.01               |
| Mold shrinkage <sup>a</sup>                                   | ISO 294-4     | %                     | 0.3/0.6            |
| <b>Mechanical</b>   |               |                       |                    |
| Tensile strength  | ISO 527-1,2   | MPa                   | 150                |
| Tensile modulus   | ISO 527-1,2   | GPa                   | 21.0               |
| Tensile strain at break                                       | ISO 527-1,2   | %                     | 1.1                |
| Flexural strength   | ISO 178       | MPa                   | 235                |
| Flexural modulus  | ISO 178       | GPa                   | 21.0               |
| Flexural strain at flexural strength                          | ISO 178       | %                     | 1.3                |
| Charpy impact strength, notched                               | ISO 179/1eA   | kJ/m <sup>2</sup>     | 5.0                |
| Charpy impact strength, unnotched                             | ISO 179/1eU   | kJ/m <sup>2</sup>     | 22                 |
| Co-eff. of friction <sup>b</sup> , static/dynamic             | -             | -                     | 0.35/0.35          |
| <b>Thermal</b>  |               |                       |                    |
| Temperature of deflection under load, 1.80MPa                 | ISO 75-1,2    | °C                    | 275                |
| Co-eff. of linear thermal expansion <sup>a</sup> , -50~50 °C  | ISO 11359-2   | x 10 <sup>-5</sup> /K | 1.5/2.5            |
| Co-eff. of linear thermal expansion <sup>a</sup> , 100~200 °C | ISO 11359-2   | x 10 <sup>-5</sup> /K | 1.5/7.0            |
| Flammability <sup>c</sup> /thickness (mm)                     | UL-94         | -                     | V-0/0.75           |
| <b>Electrical</b>   |               |                       |                    |
| Electric strength, t=1.0mm                                    | IEC 60243-1   | kV/mm                 | 22                 |
| 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 <sup>16</sup>   |
| <b>Molding Condition</b>                                      |               |                       |                    |
| Cylinder temperature  | -             | °C                    | 300-340            |
| Mold temperature  | -             | °C                    | 130-150            |

a: Flow direction/Transverse direction

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

c: UL file No. E53829