

| Property                             | Test Condition       | Test Method ISO | Units                  | GF+Mineral filler reinforced·El<br>astomer improvement |
|--------------------------------------|----------------------|-----------------|------------------------|--------------------------------------------------------|
|                                      |                      |                 |                        | Heat-cycling resistance, High<br>weld strength         |
|                                      |                      |                 |                        | A675GS1                                                |
|                                      |                      |                 |                        | >PPS-I-GF+MD50<                                        |
| Physical property                    |                      |                 |                        |                                                        |
| Water Absorption                     | 24hrs. in 23℃ water  | ISO 62          | %                      | 0.02                                                   |
| Density                              | 23℃                  | ISO 1183        | kg/m <sup>3</sup>      | 1670                                                   |
| Color                                |                      |                 |                        | Natural/Black                                          |
| Mechanical property                  |                      |                 |                        |                                                        |
| Tensile strength                     | 23℃                  | ISO 527-1,2     | MPa                    | 160                                                    |
| Elongation at Break                  | 23℃                  | ISO 527-1,2     | %                      | 2                                                      |
| Flexural Strength                    | 23℃                  | ISO 178         | MPa                    | 235                                                    |
| Flexural Modulus                     | 23℃                  | ISO 178         | GPa                    | 12.3                                                   |
| Coefficient of friction              | Vs metal             | -               | -                      | -                                                      |
| Shear Strength                       | 23℃                  | JIS K 7214      | MPa                    | 68                                                     |
| Rockwell Hardness                    |                      | ISO 2039-2      | R Scale                | 112                                                    |
| Taper Abrasion                       |                      | ISO 9352        | mg/1000times           | -                                                      |
| Charpy Impact Strength (V-notched)   | 23℃                  | ISO 179         | kJ/m <sup>2</sup>      | 9                                                      |
| Charpy Impact Strength (Unnotched)   | 23℃                  | ISO 179         | kJ/m <sup>2</sup>      | 55                                                     |
| Heat property                        |                      |                 |                        |                                                        |
| Melting Point                        |                      | ISO 11357-3     | ℃                      | 278                                                    |
| Coef of Linear Thermal Expansion     | Machine Direction    | ISO 11359-2     | ×10 <sup>-5</sup> /K   | 2.2                                                    |
| Coef of Linear Thermal Expansion     | Transverse Direction | ISO 11359-2     | ×10 <sup>-5</sup> /K   | 2.9                                                    |
| Heat Deflection Temp High Load       | 1.80MPa              | ISO 75-1,2      | ℃                      | 260                                                    |
| Flammability                         |                      | UL94            | rank/thickness m<br>mt | V-0 (2.5mmt)                                           |
| Electrical property                  |                      |                 |                        |                                                        |
| Volume Resistivity                   |                      | IEC 60093       | Ω · m                  | 10 <sup>14</sup>                                       |
| Dielectric Strength                  |                      | IEC 60243-1     | MV/m                   | 24                                                     |
| Dielectric Constant                  | 23℃、60% RH、1MHz      | IEC 60250       | -                      | 3.8                                                    |
| Dissipation Factor                   | 23℃、60% RH、1MHz      | IEC 60250       | -                      | 0.0050                                                 |
| Molding property                     |                      |                 |                        |                                                        |
| Mold shrinkage(Machine Direction)    | 80×80×3mmt           | Toray Method    | %                      | 0.13                                                   |
| Mold shrinkage(Transverse Direction) | 80×80×3mmt           | Toray Method    | %                      | 0.71                                                   |
| Bar Flow                             | 320℃,98MPa,1mmt      | Toray Method    | ×10 <sup>-3</sup> m    | 160                                                    |

These values are typical data for this product under specific test conditions and not intended for use as limiting specifications.

