

| Property                             | Test Condition       | Test Method ISO | Units                  | GF+Mineral filler reinforced·El<br>astomer improvement |  |
|--------------------------------------|----------------------|-----------------|------------------------|--------------------------------------------------------|--|
|                                      |                      |                 |                        | Heat-cycling resistance                                |  |
|                                      |                      |                 |                        | A470MS01                                               |  |
|                                      |                      |                 |                        | >PPS-I-GF+MD55<                                        |  |
| Physical property                    |                      |                 |                        |                                                        |  |
| Water Absorption                     | 24hrs. in 23℃ water  | ISO62           | %                      | 0.02                                                   |  |
| Density                              | 23℃                  | ISO1183         | kg/m <sup>3</sup>      | 1760                                                   |  |
| Color                                |                      |                 |                        | Black                                                  |  |
| Mechanical property                  |                      |                 |                        |                                                        |  |
| Tensile strength                     | 23℃                  | ISO527-1,2      | MPa                    | 160                                                    |  |
| Elongation at Break                  | 23℃                  | ISO527-1,2      | %                      | 1.5                                                    |  |
| Flexural Strength                    | 23℃                  | ISO178          | MPa                    | 240                                                    |  |
| Flexural Modulus                     | 23℃                  | ISO178          | GPa                    | 14.5                                                   |  |
| Coefficient of friction              | Vs metal             | -               | -                      | -                                                      |  |
| Shear Strength                       | 23℃                  | JIS K7214       | MPa                    | -                                                      |  |
| Rockwell Hardness                    |                      | ISO2039-2       | R Scale                | -                                                      |  |
| Taper Abrasion                       |                      | ISO9352         | mg/1000times           | -                                                      |  |
| Charpy Impact Strength (V-notched)   | 23℃                  | ISO179          | kJ/m <sup>2</sup>      | 8.5                                                    |  |
| Charpy Impact Strength (Unnotched)   | 23℃                  | ISO179          | kJ/m <sup>2</sup>      | 47                                                     |  |
| Heat property                        |                      |                 |                        |                                                        |  |
| Melting Point                        |                      | ISO11357-3      | ℃                      | 278                                                    |  |
| Coef of Linear Thermal Expansion     | Machine Direction    | ISO11359-2      | ×10 <sup>-5</sup> /K   | 1.8                                                    |  |
| Coef of Linear Thermal Expansion     | Transverse Direction | ISO11359-2      | ×10 <sup>-5</sup> /K   | 2.6                                                    |  |
| Heat Deflection Temp High Load       | 1.80MPa              | ISO75-1,2       | ℃                      | 260                                                    |  |
| Flammability                         |                      | UL94            | rank/thickness m<br>mt | V-0相当                                                  |  |
| Electrical property                  |                      |                 |                        |                                                        |  |
| Volume Resistivity                   |                      | IEC60093        | Ω · m                  | 10 <sup>14</sup>                                       |  |
| Dielectric Strength                  |                      | IEC60243-1      | MV/m                   | 24                                                     |  |
| Dielectric Constant                  | 23℃、60% RH、1MHz      | IEC 60250       | -                      | -                                                      |  |
| Dissipation Factor                   | 23℃、60% RH、1MHz      | IEC 60250       | -                      | -                                                      |  |
| Molding property                     |                      |                 |                        |                                                        |  |
| Mold shrinkage(Machine Direction)    | 80×80×3mmt           | Toray Method    | %                      | 0.17                                                   |  |
| Mold shrinkage(Transverse Direction) | 80×80×3mmt           | Toray Method    | %                      | 0.62                                                   |  |
| Bar Flow                             | 320℃,98MPa,1mmt      | Toray Method    | ×10 <sup>-3</sup> m    | 125                                                    |  |

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

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