

# Torayca™ A630T-10V

## PPS

## TECHNICAL DATA

### Product Description

CF10%, Flame retardant

|             |                                                                                                        |                                                                          |                                                                      |
|-------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>Uses</b> | <ul style="list-style-type: none"> <li>Automotive Applications</li> <li>Computer Components</li> </ul> | <ul style="list-style-type: none"> <li>Gears</li> <li>Printer</li> </ul> | <ul style="list-style-type: none"> <li>Valves/Valve Parts</li> </ul> |
|-------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------|

|                          |                                                                     |
|--------------------------|---------------------------------------------------------------------|
| <b>Processing Method</b> | <ul style="list-style-type: none"> <li>Injection Molding</li> </ul> |
|--------------------------|---------------------------------------------------------------------|

|                        |                                                                    |
|------------------------|--------------------------------------------------------------------|
| <b>ISO Designation</b> | <ul style="list-style-type: none"> <li>&gt;PPS-CF10&lt;</li> </ul> |
|------------------------|--------------------------------------------------------------------|

|             |                                                                                     |
|-------------|-------------------------------------------------------------------------------------|
| <b>Type</b> | <ul style="list-style-type: none"> <li>Short carbon fiber reinforced PPS</li> </ul> |
|-------------|-------------------------------------------------------------------------------------|

### ASTM & ISO Properties

| Physical                              | Nominal Value | Unit        | Test Method     |
|---------------------------------------|---------------|-------------|-----------------|
| Density (23°C)                        | 1.38          | g/cm³       | ISO 1183        |
| Molding Shrinkage <sup>1</sup>        |               |             | Internal Method |
| Across Flow : 3.00 mm                 | 0.80          | %           |                 |
| Flow : 3.00 mm                        | 0.10          | %           |                 |
| Mechanical                            | Nominal Value | Unit        | Test Method     |
| Tensile Strength (23°C)               | 140           | MPa         | ISO 527-2       |
| Tensile Strain (Break, 23°C)          | 1.4           | %           | ISO 527-2       |
| Flexural Modulus (23°C)               | 10900         | MPa         | ISO 178         |
| Flexural Stress (23°C)                | 235           | MPa         | ISO 178         |
| Amount of Wear <sup>2</sup>           |               |             | Suzuki Method   |
| vs. S45C                              | 0.3           | mg/hr       |                 |
| vs. SUS                               | 0.5           | mg/hr       |                 |
| Coefficient of Friction <sup>2</sup>  |               |             | Suzuki Method   |
| vs. S45C                              | 0.20          |             |                 |
| vs. SUS                               | 0.04          |             |                 |
| Limiting Pressure Velocity            |               |             | Suzuki Method   |
| vs. S45C                              | 0.9           | MPa·m/s     |                 |
| vs. SUS                               | 0.7           | MPa·m/s     |                 |
| Impact                                | Nominal Value | Unit        | Test Method     |
| Charpy Notched Impact Strength (23°C) | 5.2           | kJ/m²       | ISO 179         |
| Thermal                               | Nominal Value | Unit        | Test Method     |
| Deflection Temperature Under Load     |               |             | ISO 75-2/A      |
| 1.8 MPa, Unannealed                   | > 260         | °C          |                 |
| Melting Temperature                   | 278           | °C          | DSC             |
| CLTE                                  |               |             | ISO 11359-2     |
| Flow                                  | 2.1           | cm³-5/cm/°C |                 |
| Transverse                            | 2.9           | cm³-5/cm/°C |                 |
| Electrical                            | Nominal Value | Unit        | Test Method     |
| Volume Resistivity                    | 1.0           | ohms·m      | JIS K7194       |
| Surface Resistivity                   | 1000          | ohms/cm²    | JIS K7194       |
| Flammability                          | Nominal Value | Unit        | Test Method     |
| Flame Rating (0.72 mm)                | V-0           |             | UL 94           |

### Notes

<sup>1</sup> 80x80x3mm

<sup>2</sup> 1MPa, 0.33 m/s

