

### PPSU Technical Data Sheet (TDS)

| General Properties   |  | Standard   |
|----------------------|--|------------|
| Printed Part Density | 1209 Kg/m <sup>3</sup> / 75.4 IB/ft <sup>3</sup> | ISO 1183-1 |

| Thermal Properties               |   | Standard       |
|----------------------------------|---|----------------|
| HDT at 1.8MPa                    | 212 °C / 414 °F   | ISO 75-2       |
| HDT at 0.45 MPa                  | 218 °C / 424 °F   | ISO 75-2       |
| Vicat softening point at 50 N    | 220 °C / 428 °F   | ISO 306        |
| Glass Transition Temperature     | 220 °C / 428 °F   | ISO 11357-2    |
| Melt Volume Rate                 | 39 cm <sup>3</sup> /10 min / 2.38 in <sup>3</sup> /10 min | ISO 1133       |
| Coefficient of Thermal Expansion | 55 E-6/K  | ISO 11359-2    |
| Flammability 12 s. vertical      | Passed (thickness 1.59 and 6.35 mm)                       | FAR 25.853 (a) |
| Flammability 60 s. vertical      | Passed (thickness 1.59 and 6.35 mm)                       | FAR 25.853 (a) |

| Mechanical Properties  Dried specimen |           |                         |                        |
|---------------------------------------|-----------|-------------------------|------------------------|
| Print direction                       | Standard  | XY                      | ZX                     |
|                                       |           | Flat                    | Upright                |
| Tensile strength                      | ISO 527   | 65.1 MPa / 9.4 ksi      | 51.6 MPa / 7.5 ksi     |
| Elongation at Break                   | ISO 527   | 6.50%                   | 3.20%                  |
| Young's Modulus                       | ISO 527   | 2037 MPa / 295 ksi      | 2036 MPa / 295 ksi     |
| Flexural Strength                     | ISO 178   | 92.6 MPa / 13.4 ksi     | 96.5 MPa / 14.0 ksi    |
| Flexural Modulus                      | ISO 178   | 2152 MPa / 312 ksi      | 1999 MPa / 290 ksi     |
| Impact Strength Charpy (notched)      | ISO 179-2 | 13.8 kJ/m <sup>2</sup>  | 5.5 kJ/m <sup>2</sup>  |
| Impact Strength Charpy                | ISO 179-2 | 200.7 kJ/m <sup>2</sup> | 22.6 kJ/m <sup>2</sup> |
| Impact Strength Izod (notched)        | ISO 180   | 12.0 kJ/m <sup>2</sup>  | 5.5 kJ/m <sup>2</sup>  |
| Impact Strength Izod (unnotched)      | ISO 180   | 119 kJ/m <sup>2</sup>   | 14.3 kJ/m <sup>2</sup> |