

FORTRON® FX72T6

Polyphenylene sulfide

Fortron® FX72T6 is an unreinforced, impact modified PPS with high flowability and high impact resistance suitable for injection molding.

The mechanical properties reported on this data sheet refer to a mold wall temperature of 135°C.

Product information

| | | |
|----------------------|-------|-----------|
| Resin Identification | PPS | ISO 1043 |
| Part Marking Code | >PPS< | ISO 11469 |

Rheological properties

| | | |
|----------------------------------|------------|-----------------|
| Melt mass-flow rate | 35 g/10min | ISO 1133 |
| Melt mass-flow rate, Temperature | 310 °C | |
| Melt mass-flow rate, Load | 2.16 kg | |
| Moulding shrinkage, parallel | 1.3 % | ISO 294-4, 2577 |
| Moulding shrinkage, normal | 1.3 % | ISO 294-4, 2577 |

Typical mechanical properties

| | | |
|--------------------------------------|----------------------|--------------|
| Tensile modulus | 1680 MPa | ISO 527-1/-2 |
| Tensile stress at break, 50mm/min | 40 MPa | ISO 527-1/-2 |
| Tensile strain at break, 50mm/min | 20 % | ISO 527-1/-2 |
| Flexural modulus | 1700 MPa | ISO 178 |
| Charpy impact strength, 23°C | N kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength, 23°C | 10 kJ/m ² | ISO 179/1eA |
| Izod notched impact strength, 23°C | 10 kJ/m ² | ISO 180/1A |
| Izod impact strength, 23°C | N kJ/m ² | ISO 180/1U |
| Poisson's ratio | 0.411 | |

Thermal properties

| | | |
|---|--------|-------------|
| Temperature of deflection under load, 1.8 MPa | 100 °C | ISO 75-1/-2 |
| Vicat softening temperature, 50°C/h 50N | 122 °C | ISO 306 |

Flammability

| | | |
|-------------------------------|-----------|-----------------|
| Burning Behav. at thickness h | V-0 class | IEC 60695-11-10 |
| Thickness tested | 3 mm | IEC 60695-11-10 |
| Oxygen index | 48.5 % | ISO 4589-1/-2 |

Electrical properties

| | | |
|-----------------------------|-------|---------------|
| Relative permittivity, 1MHz | 3.1 | IEC 62631-2-1 |
| Dissipation factor, 1MHz | 3 E-4 | IEC 62631-2-1 |

Physical/Other properties

| | | |
|---------|------------------------|----------|
| Density | 1180 kg/m ³ | ISO 1183 |
|---------|------------------------|----------|

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Injection

| | |
|---------------------------------|---------------|
| Drying Recommended | yes |
| Drying Temperature | 130 °C |
| Drying Time, Dehumidified Dryer | 2 - 4 h |
| Processing Moisture Content | ≤0.02 % |
| Melt Temperature Optimum | 330 °C |
| Min. melt temperature | 310 °C |
| Max. melt temperature | 340 °C |
| Screw tangential speed | 0.2 - 0.3 m/s |
| Mold Temperature Optimum | 120 °C |
| Min. mould temperature | 80 °C |
| Max. mould temperature | 160 °C |
| Hold pressure range | 30 - 70 MPa |
| Back pressure | 3.5 MPa |
| Ejection temperature | 225 °C |

Characteristics

| | |
|-------------------------|---|
| Processing | Injection Moulding |
| Special characteristics | High impact or impact modified, High Flow |

Additional information

Injection molding

Processing

Injection Molding:

Drying – alternate 80°C, approx. 6 hours

Mold surface temperature – a wide range of 30°C to 135°C is possible. Highest crystallinity will often be achieved at higher mold temperature. Depending on the part design, improved surface appearance and demolding may be achieved at 50°C to 70°C.

Processing Notes

Pre-Drying

Fortron® should in principle be predried. Because of the necessary low maximum residual moisture content, the use of dry air dryers is recommended. The dew point should be < -30°C. The time between drying and processing should be as short as possible.

Automotive

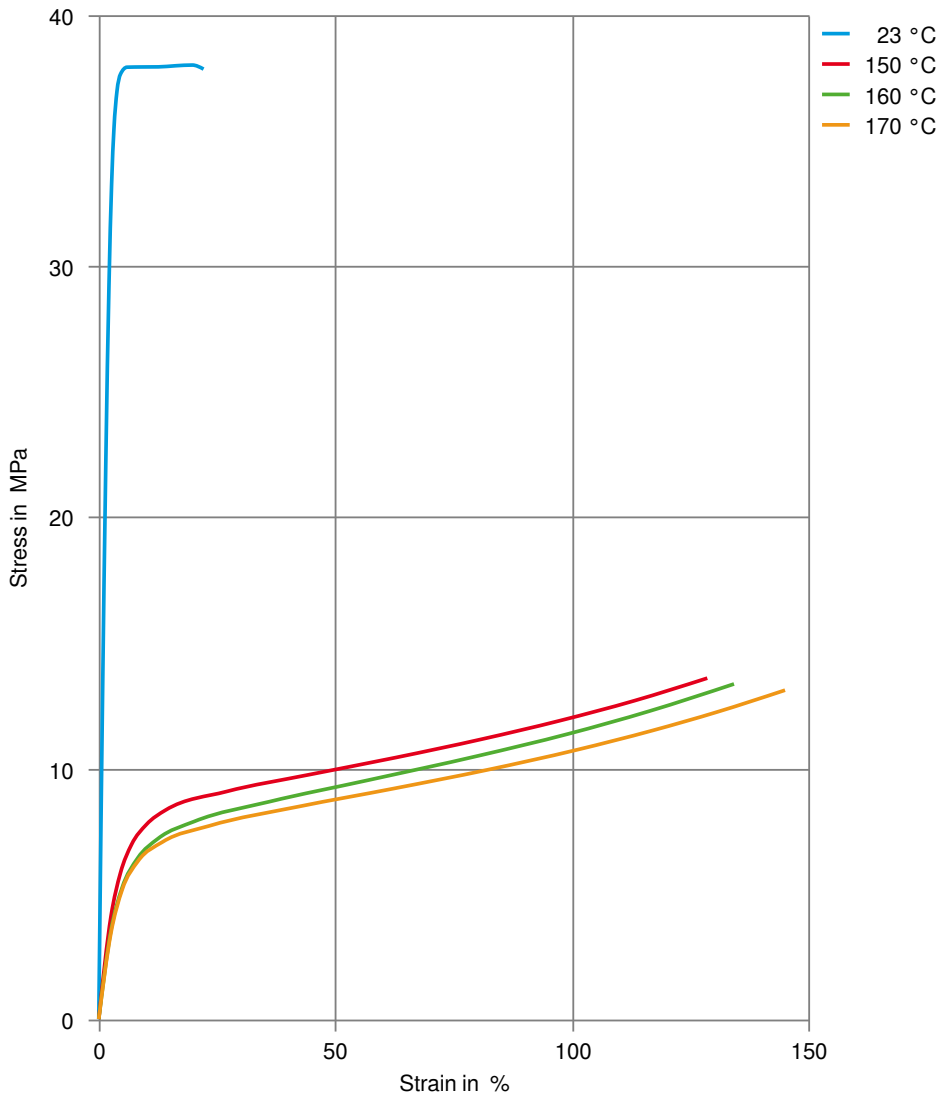
OEM
Ford

STANDARD
WSS-M4D1063-A2

FORTRON® FX72T6

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Stress-strain



FORTRON[®] FX72T6

Polyphenylene sulfide

Secant modulus-strain

