

## FORTRON® FX75T1 - PPS

### Description

unfilled impact modified PPS for extrusion

Fortron® FX75T1 is an unreinforced, impact-modified poly(phenylene sulfide) with high melt viscosity suitable for extrusion.

| Physical properties                  | Value | Unit               | Test Standard   |
|--------------------------------------|-------|--------------------|-----------------|
| Density                              | 74.9  | lb/ft <sup>3</sup> | ISO 1183        |
| Molding shrinkage, parallel (flow)   | 1.9   | %                  | ISO 294-4, 2577 |
| Molding shrinkage, transverse normal | 2.1   | %                  | ISO 294-4, 2577 |

| Mechanical properties                 | Value  | Unit                  | Test Standard |
|---------------------------------------|--------|-----------------------|---------------|
| Tensile modulus                       | 239313 | psi                   | ISO 527-1, -2 |
| Tensile stress at break, 50mm/min     | 6090   | psi                   | ISO 527-1, -2 |
| Tensile strain at break, 50mm/min     | 80     | %                     | ISO 527-1, -2 |
| Flexural modulus, 23°C                | 232000 | psi                   | ISO 178       |
| Flexural stress at 3.5% strain        | 7250   | psi                   | ISO 178       |
| Charpy notched impact strength, 23°C  | 33.3   | ft-lb/in <sup>2</sup> | ISO 179/1eA   |
| Charpy notched impact strength, -30°C | 23.8   | ft-lb/in <sup>2</sup> | ISO 179/1eA   |

| Thermal properties                         | Value | Unit       | Test Standard |
|--------------------------------------------|-------|------------|---------------|
| DTUL at 1.8 MPa                            | 203   | °F         | ISO 75-1, -2  |
| Vicat softening temperature, 50°C/h 10N    | 518   | °F         | ISO 306       |
| Vicat softening temperature, 50°C/h 50N    | 248   | °F         | ISO 306       |
| Coeff. of linear therm expansion, parallel | 0.544 | E-4/°F     | ISO 11359-2   |
| Coeff. of linear therm expansion, normal   | 0.678 | E-4/°F     | ISO 11359-2   |
| Specific heat                              | 0.628 | BTU/(lb-F) | ASTM E1461    |

| Electrical properties          | Value | Unit  | Test Standard |
|--------------------------------|-------|-------|---------------|
| Dielectric constant (Dk), 1MHz | 3.24  | -     | IEC 60250     |
| Dissipation factor, 1MHz       | 6     | E-4   | IEC 60250     |
| Volume resistivity, 23°C       | 2E15  | Ohm*m | IEC 62631-3-1 |

### Typical injection moulding processing conditions

| Pre Drying                                      | Value | Unit |
|-------------------------------------------------|-------|------|
| Necessary low maximum residual moisture content | 0.02  | %    |
| Drying time                                     | 3 - 4 | h    |
| Drying temperature                              | 212   | °F   |

| Temperature              | Value     | Unit |
|--------------------------|-----------|------|
| Hopper temperature       | 68 - 86   | °F   |
| Feeding zone temperature | 167 - 185 | °F   |
| Zone1 temperature        | 572 - 590 | °F   |
| Zone2 temperature        | 581 - 599 | °F   |
| Zone3 temperature        | 590 - 608 | °F   |
| Zone4 temperature        | 590 - 608 | °F   |
| Nozzle temperature       | 599 - 608 | °F   |
| Melt temperature         | 599 - 608 | °F   |
| Mold temperature         | 275 - 302 | °F   |
| Hot runner temperature   | 599 - 608 | °F   |

| Pressure           | Value | Unit |
|--------------------|-------|------|
| Back pressure max. | 35    | bar  |



## FORTRON® FX75T1 - PPS

| Speed                      | Value       |      |
|----------------------------|-------------|------|
| Injection speed            | slow-medium |      |
| Screw Speed                | Value       | Unit |
| Screw speed diameter, 25mm | 125         | RPM  |
| Screw speed diameter, 40mm | 75          | RPM  |
| Screw speed diameter, 55mm | 50          | RPM  |

### Other text information

#### Injection molding

Drying – alternate 80 °C, approx. 6 hours

#### Characteristics

|                         |                         |
|-------------------------|-------------------------|
| Special Characteristics | High viscosity          |
| Product Categories      | Impact modified         |
| Processing              | Blow molding, Extrusion |



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## **FORTRON® FX75T1 - PPS**

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### **Trademark**

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