

# FORTRON<sup>®</sup> 0203

## Polyphenylene sulfide

A very easy flowing unfilled grade. This grade demonstrates excellent chemical resistance and thermal stability. Intended for extrusion applications that do not require high melt strength and for compounding with various fillers. Available as Fortron 0203B6 (granular powder), and 0203P6 (pellets)

### **Product information**

Resin Identification Part Marking Code	PPS >PPS<		ISO 1043 ISO 11469
Typical mechanical properties			
Tensile modulus Tensile stress at break, 5mm/min Tensile strain at break, 5mm/min Flexural modulus Flexural strength Compressive modulus Izod notched impact strength, 23°C Izod impact strength, 23°C Hardness, Rockwell, M-scale Poisson's ratio [C]: Calculated	1 3900 140 4100 2	MPa % MPa MPa	ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 178 ISO 178 ISO 604 ISO 180/1A ISO 180/1U ISO 2039-2
Thermal properties			
Melting temperature, 10°C/min Glass transition temperature, 10°C/min Temperature of deflection under load, 1.8 MPa Temperature of deflection under load, 8 MPa Coefficient of linear thermal expansion (CLTE), parallel Coefficient of linear thermal expansion (CLTE), normal Specific heat capacity of melt	120 95 55 53	°C	ISO 11357-1/-3 ISO 11357-1/-3 ISO 75-1/-2 ISO 75-1/-2 ISO 11359-1/-2 ISO 11359-1/-2 ISO 22007-4
Electrical properties Relative permittivity, 1MHz Dissipation factor, 1MHz Volume resistivity Electric strength Comparative tracking index Arc Resistance	1E9	E-4 Ohm.m kV/mm s	IEC 62631-2-1 IEC 62631-2-1 IEC 62631-3-1 IEC 60243-1 IEC 60112 UL 746B
Physical/Other properties Water absorption, 2mm Water absorption, Immersion 24h Density	0.02 0.01 1400		Sim. to ISO 62 Sim. to ISO 62 ISO 1183



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#### Injection

Drying Recommended	yes
Drying Temperature	110 °C
Drying Time, Dehumidified Dryer	2-4 h
Processing Moisture Content	≤0.02 %
Melt Temperature Optimum	315 °C
Min. melt temperature	275 °C
Max. melt temperature	320 °C
Screw tangential speed	0.2 - 0.3 m/s
Mold Temperature Optimum	150 °C
Min. mould temperature	135 °C
Max. mould temperature	160 °C
Hold pressure range	30 - 70 MPa
Back pressure	3 MPa
Ejection temperature	230 °C

#### Additional information

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  $=< -30^{\circ}$  C. The time between drying and processing should be as short as possible.

#### Storage

For subsequent storage the material should be stored dry in the dryer until processed ( $\leq 60$  h).

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