

## FORTRON® 0203HS | PPS | Unfilled

### Description

A very easy flowing, heat stabilized unfilled grade designed for melt blown processing. 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.

Physical properties	Value	Unit	Test Standard
Density	<b>1350</b>	kg/m <sup>3</sup>	ISO 1183
Water absorption (23°C-sat)	<b>0.02</b>	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	<b>4200</b>	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	<b>33</b>	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	<b>1</b>	%	ISO 527-2/1A
Flexural modulus (23°C)	<b>3900</b>	MPa	ISO 178
Flexural stress @ break	<b>135</b>	MPa	ISO 178
Unnotched impact str (Izod) @ 23°C	<b>8</b>	kJ/m <sup>2</sup>	ISO 180/1U
Notched impact strength (Izod) @ 23°C	<b>2.0</b>	kJ/m <sup>2</sup>	ISO 180/1A
Rockwell hardness	<b>100</b>	M-Scale	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	<b>280</b>	°C	ISO 11357-1,-2,-3
Glass transition temperature (10°C/min)	<b>90</b>	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	<b>120</b>	°C	ISO 75-1/-2
DTUL @ 8.0 MPa	<b>95</b>	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	<b>0.55</b>	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	<b>0.53</b>	E-4/°C	ISO 11359-2

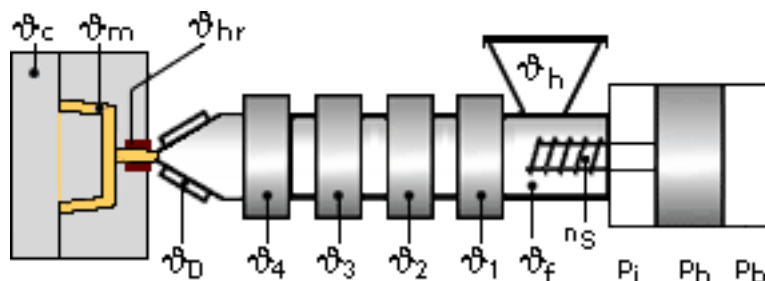
Electrical properties	Value	Unit	Test Standard
Relative permittivity - 1 MHz	<b>4</b>	-	IEC 60250
Volume resistivity	<b>1E9</b>	Ohm*m	IEC 60093
Electric strength	<b>17</b>	kV/mm	IEC 60243-1
Comparative tracking index CTI	<b>100</b>	-	IEC 60112

Test specimen production	Value	Unit	Test Standard
Injection molding melt temperature	<b>295 - 330</b>	°C	ISO 294
Injection molding mold temperature	<b>135 - 160</b>	°C	ISO 294

Rheological Calculation properties	Value	Unit	Test Standard
Specific heat capacity of melt	<b>1830</b>	J/(kg K)	Internal

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**Typical injection moulding processing conditions**



**Pre Drying:**

**Necessary low maximum residual moisture content: 0.02%**

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

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

**Drying time: 3 - 4 h**

**Drying temperature: 110 - 120 °C**

**Temperature:**

	Hopper
min (°C)	20
max (°C)	30

**Contact Information**

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**General Disclaimer**

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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