Celanese
The chemistry inside innovation™

FORTRON® 0203 - PPS

Description

Low viscosity, for compounding
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)

Physical properties	Value	Unit	Test Standard
Density	**84.3**	lb/ft³	ISO 1183
Water absorption, 23°C-sat	**0.02**	%	Sim. to ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	**609160**	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	**4790**	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	**1**	%	ISO 527-1, -2
Flexural modulus, 23°C	**566000**	psi	ISO 178
Flexural stress at break	**19600**	psi	ISO 178
Izod impact notched, 23°C	**0.951**	ft-lb/in²	ISO 180/1A
Izod impact unnotched, 23°C	**3.81**	ft-lb/in²	ISO 180/1U
Compressive modulus	**595000**	psi	ISO 604
Compressive stress at 6% strain	**18900**	psi	ISO 604
Rockwell hardness (M-Scale)	**100**	M-Scale	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	**536**	°F	ISO 11357-1/-3
Glass transition temperature, 10°C/min	**194**	°F	ISO 11357-1,-2,-3
DTUL at 1.8 MPa	**248**	°F	ISO 75-1, -2
DTUL at 8.0 MPa	**203**	°F	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	**0.306**	E-4/°F	ISO 11359-2
Coeff. of linear therm expansion, normal	**0.294**	E-4/°F	ISO 11359-2

Electrical properties	Value	Unit	Test Standard
Dielectric constant (Dk), 1MHz	**4**	-	IEC 60250
Dissipation factor, 1MHz	**84**	E-4	IEC 60250
Volume resistivity, 23°C	**1E9**	Ohm*m	IEC 62631-3-1
Electric strength, 23°C (AC)	**432**	kV/in	IEC 60243-1
Comparative tracking index	**PLC 4**	-	UL 746

Rheological calculation properties	Value	Unit	Test Standard
Spec. heat capacity melt	**1830**	J/(kg K)	Internal

Typical injection moulding processing conditions

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	**0.02**	%
Drying time	**3 - 4**	h
Drying temperature	**230 - 248**	°F

Other text information

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.

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Longer pre-drying times/storage

For subsequent storage the material should be stored dry in the dryer until processed (<= 60 h).

Characteristics

Special Characteristics	Chemical resistant, Flame retardant, High flow
Product Categories	Unfilled
Processing	Injection molding, Other extrusion
Delivery Form	Powder

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.To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication.Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards.We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products. The products mentioned herein are not intended for use in medical or dental implants.

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