

FORTRON® MT9320C0 | PPS | Medical Technology

Description

Fortron MT9320C0 is an unfilled grade used for extrusion applications. It demonstrates excellent chemical resistance and thermal stability as well as a high melt strength. Components made of this grade may be used for medical, dental, pharmaceutical, and certain food handling applications. Fortron MT9320C0 is in compliance with ISO 10993, USP Class VI and it is included in the Fortron Drug and Device Master Files at the FDA. This grade complies with the FDA Food Contact Notification (FCN-No. 40) for repeat-use applications.

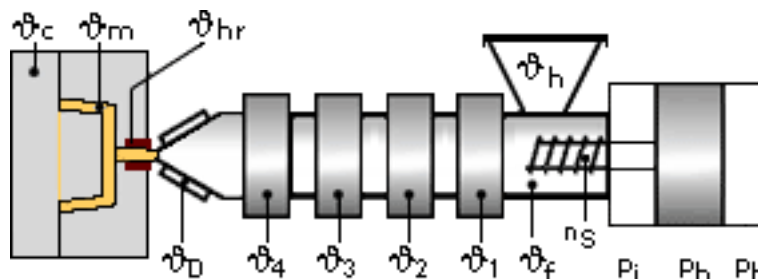
Physical properties	Value	Unit	Test Standard
Density	1350	kg/m³	ISO 1183
Water absorption (23°C-sat)	0.02	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile stress at break (5mm/min)	85	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	6	%	ISO 527-2/1A
Flexural modulus (23°C)	4200	MPa	ISO 178
Flexural strength (23°C)	140	MPa	ISO 178
Notched impact strength (Izod) @ 23°C	3.5	kJ/m²	ISO 180/1A

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	280	°C	ISO 11357-1,-2,-3
Glass transition temperature (10°C/min)	90	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	115	°C	ISO 75-1/-2
DTUL @ 8.0 MPa	95	°C	ISO 75-1/-2

Electrical properties	Value	Unit	Test Standard
Relative permittivity - 1 MHz	2.8	-	IEC 60250
Volume resistivity	1E13	Ohm*m	IEC 60093

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 (≤ 60 h).

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Drying time: 3 - 4 h

Drying temperature: 110 - 120 °C

Temperature:

	°Manifold	°Mold	°Melt	°Nozzle	°Zone4	°Zone3	°Zone2	°Zone1	°Feed	°Hopper
min (°C)	310	140	310	300	310	310	300	290	60	20
max (°C)	320	160	320	310	320	320	310	300	80	30

Pressure:

	Inj press	Hold press	Back pressure
min (bar)	400	300	0
max (bar)	800	600	30

Speed:

Injection speed: fast

Screw speed

Screw diameter (mm)	16	25	40	55	75
Screw speed (RPM)	-	120	75	50	-

Contact Information

Americas

8040 Dixie Highway, Florence, KY 41042 USA

Product Information Service

t: +1-800-833-4882 t: +1-859-372-3244

Customer Service

t: +1-800-526-4960 t: +1-859-372-3214

e: info-engineeredmaterials-am@celanese.com

Asia

4560 Jinke Road, Zhang Jiang Hi Tech Park

Shanghai 201203 PRC

Customer Service

t: +86 21 3861 9266 f: +86 21 3861 9599

e: info-engineeredmaterials-asia@celanese.com

Europa

Am Unisys-Park 1, 65843 Sulzbach, Germany

Product Information Service

t: +(00)-800-86427-531 t: +49-(0)-69-45009-1011

e: info-engineeredmaterials-eu@celanese.com

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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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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 (+49 (0) 69 30516299 for Europe, +1 859-372-3244 for the Americas and +86 21 3861 9266 for Asia) for additional technical information. Visit our web site for the appropriate Safety Data Sheets (SDS) before attempting to process our products. Feel free to call Customer Services for additional assistance.

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