

HOSTAFORM® MT12U01 - POM

Description

Improved flow grade with optimum properties for medical technology applications
 Hostaform® MT12U01 is a moderately high flow grade for faster cycling and thin walled injection molding.

Hostaform® MT12U01 is a special grade developed for medical industry applications and complies with:

- CFR 21 (177.2470) of the Food and Drug Administration (FDA) and is listed in the Drug Master File (DMF 11559) and the Device Master File (MAF 1079)
- the corresponding EU and national registry regulatory requirements
- biocompatibility in tests corresponding to USP <88> Class VI/ISO 10993
- low residual monomers
- no animal-derived constituents

Physical properties	Value	Unit	Test Standard
Density	1410	kg/m ³	ISO 1183
Melt volume rate, MVR	12	cm ³ /10min	ISO 1133
MVR temperature	190	°C	ISO 1133
MVR load	2,16	kg	ISO 1133
Molding shrinkage, parallel	2,0	%	ISO 294-4, 2577
Molding shrinkage, normal	1,8	%	ISO 294-4, 2577
Water absorption, 23°C-sat	0,65	%	ISO 62
Humidity absorption, 23°C/50%RH	0,2	%	ISO 62

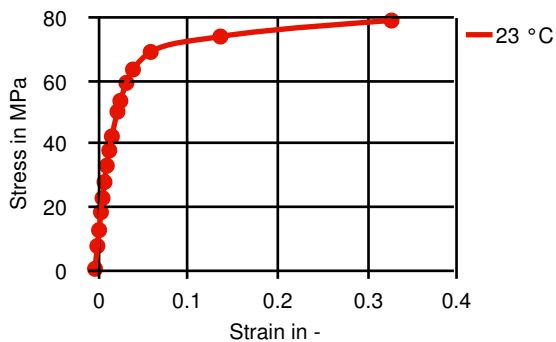
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2900	MPa	ISO 527-2/1A
Tensile stress at yield, 50mm/min	65	MPa	ISO 527-2/1A
Tensile strain at yield, 50mm/min	9	%	ISO 527-2/1A
Tensile nominal strain at break, 50mm/min	25	%	ISO 527-2/1A
Tensile creep modulus, 1h	2500	MPa	ISO 899-1
Tensile creep modulus, 1000h	1300	MPa	ISO 899-1
Flexural modulus, 23°C	2800	MPa	ISO 178
Charpy impact strength, 23°C	200	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	200	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	6	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	6	kJ/m ²	ISO 179/1eA
Ball indentation hardness, 30s	143	MPa	ISO 2039-1

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	106	°C	ISO 75-1, -2
Vicat softening temperature, 50°C/h 50N	151	°C	ISO 306
Coeff. of linear therm expansion, parallel	1,1	E-4/°C	ISO 11359-2

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Diagrams

True Stress-strain



Typical injection moulding processing conditions

	Value	Unit	Test Standard
Pre Drying			
Necessary low maximum residual moisture content	0,15	%	-
Drying time	3 - 4	h	-
Drying temperature	100 - 120	°C	-
Temperature	Value	Unit	Test Standard
Hopper temperature	20 - 30	°C	-
Feeding zone temperature	60 - 80	°C	-
Zone1 temperature	170 - 180	°C	-
Zone2 temperature	180 - 190	°C	-
Zone3 temperature	190 - 200	°C	-
Zone4 temperature	190 - 210	°C	-
Nozzle temperature	190 - 210	°C	-
Melt temperature	190 - 210	°C	-
Mold temperature	80 - 120	°C	-
Hot runner temperature	190 - 210	°C	-
Pressure	Value	Unit	Test Standard
Back pressure max.	40	bar	-
Speed	Value	Unit	Test Standard
Injection speed	slow-medium	-	-

Other text information

Pre-drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling, drying may be necessary to prevent splay and odor problems.

Characteristics

Product Categories

Medical technology

Delivery Form

Pellets

Processing

Injection molding

Additives

Release agent

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General Disclaimer

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