

Novodur® HD M203FC

ABS

INEOS Styrolution

Novodur® HD M203FC acrylonitrile butadiene styrene (ABS) polymer features high surface quality and good impact strength. Novodur® HD M203FC is an injection molding grade with high flowability and well balanced properties. Medical and food contact statements are available upon request.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	31	cm ³ /10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2400	MPa	ISO 527
Yield stress	46	MPa	ISO 527
Yield strain	2.6	%	ISO 527
Nominal strain at break	17	%	ISO 527
Impact Strength (Charpy), +23°C	110	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	90	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	16	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	7	kJ/m ²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	94	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	98	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	99	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	90	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB	class	UL 94
Thickness tested	1.5	mm	-
UL recognition	yes	-	-
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	3.0	mm	-
UL recognition	yes	-	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Electric Strength	35	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.95	%	Sim. to ISO 62
Density	1050	kg/m ³	ISO 1183

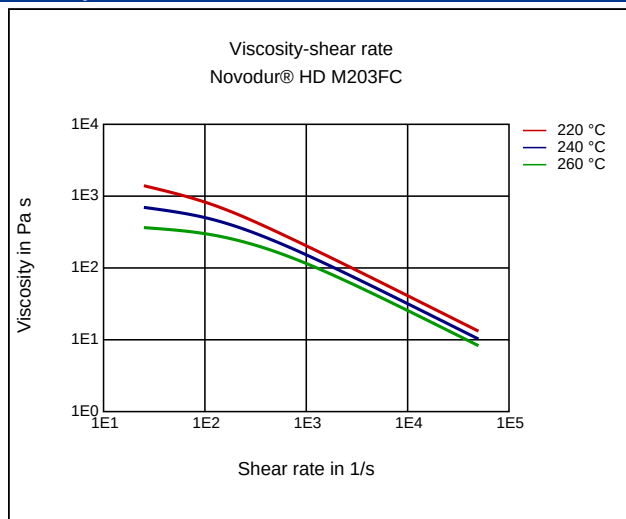
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	927	kg/m ³	-
Thermal Conductivity of Melt	0.218	W/(m K)	-
Spec. heat capacity of melt	2900	J/(kg K)	-
Ejection temperature	90	°C	-

Novodur® HD M203FC ABS

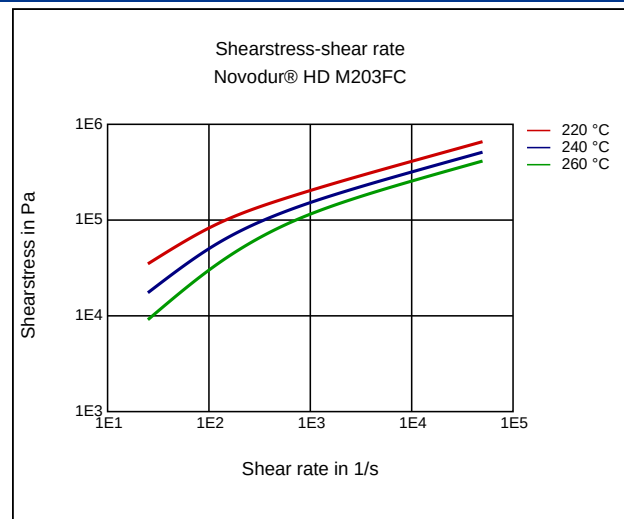
INEOS Styrolution

Diagrams

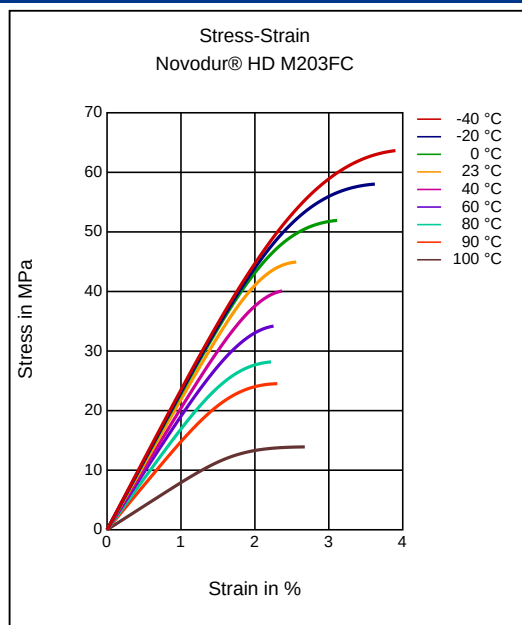
Viscosity-shear rate



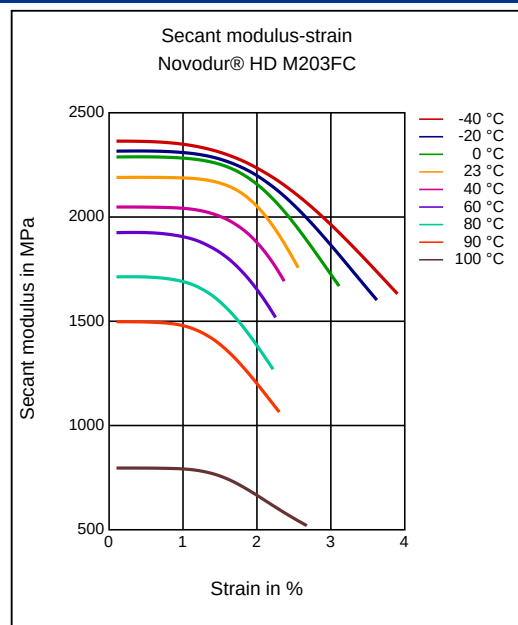
Shearstress-shear rate



Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Sterilizable, Ethylene Oxide (EtO) Sterilization, Gamma irradiation sterilization

Chemical Resistance

Radiation Resistance

Certifications

Medical, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved, Drug Master File, Long term supply assurance, Food approval, Food approval 10/2011, Food Contact (FDA)

Applications

Medical

Novodur® HD M203FC

ABS

INEOS Styrolution

Injection Molding

PREPROCESSING

Pre-drying, Temperature: 80 °C

Pre-drying, Time: 2 - 4h

PROCESSING

Melt temperature, range: 230 - 260 °C

Mold temperature, range: 60 - 80 °C
