

Novodur® Ultra 4105

(ABS+PC)

INEOS Styrolution

Novodur® Ultra 4105 acrylonitrile butadiene styrene (ABS) polymer features high surface quality and good impact strength. Novodur® Ultra 4105 is a PC modified high heat injection molding grade with very high impact strength. Furthermore, it is of low emission, i.e. suitable to produce parts which fulfill interior emission requirements of the automotive OEMs.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	14	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2000	MPa	ISO 527
Yield stress	45	MPa	ISO 527
Yield strain	3.7	%	ISO 527
Impact Strength (Charpy), +23°C	no break	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	40	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	32	kJ/m ²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	99	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	108	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	107	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	90	E-6/K	ISO 11359-1/-2

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Electric Strength	37	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1070	kg/m ³	ISO 1183

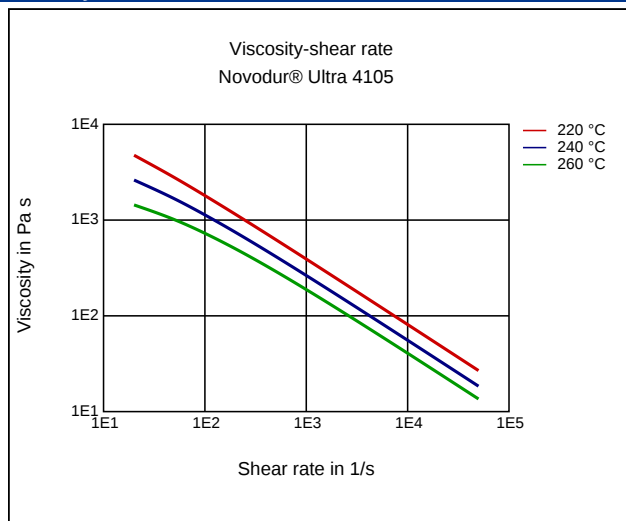
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	972	kg/m ³	-
Thermal Conductivity of Melt	0.232	W/(m K)	-
Spec. heat capacity of melt	2330	J/(kg K)	-
Ejection temperature	94	°C	-

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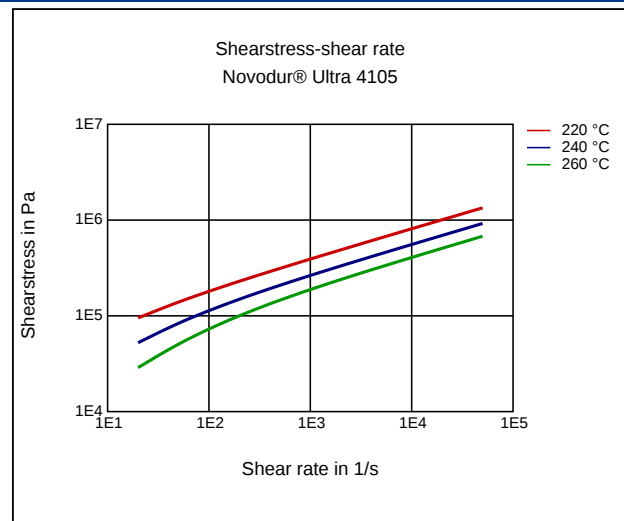
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Diagrams

Viscosity-shear rate



Shearstress-shear rate



Characteristics

Processing

Injection Molding

Features

Low Emission

Delivery form

Pellets

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