

# Novodur® HD M203FC

Acrylonitrile Butadiene Styrene

INEOS Styrolution

PROSPECTOR®

www.ulprospector.com

## Technical Data

### Product Description

Novodur® HD M203FC is an injection molding grade especially suitable for medical applications providing high flowability.

#### FEATURES

- HD service package
- High flowability
- Sterilizable

#### APPLICATIONS

- Medical appliances
- Inhaler housings
- Insuline pens

### General

Material Status	• Commercial: Active		
Literature <sup>1</sup>	• <a href="#">Technical Datasheet (English)</a>		
Search for UL Yellow Card	• <a href="#">INEOS Styrolution</a> • <a href="#">Novodur®</a>		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Sterilizability	• High Flow	
Uses	• Housings	• Medical/Healthcare Applications	
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value Unit	Test Method
Density	1.05 g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	31 cm³/10min	ISO 1133
Molding Shrinkage	0.40 to 0.70 %	ISO 294-4
Water Absorption (Saturation, 23°C)	0.95 %	ISO 62
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	2400 MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	46.0 MPa	ISO 527-2
Tensile Strain		ISO 527-2
Yield, 23°C	2.6 %	
Break, 23°C	> 15 %	
Flexural Modulus (23°C)	2400 MPa	ISO 178
Flexural Stress (23°C)	70.0 MPa	ISO 178
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-30°C	7.0 kJ/m²	
23°C	16 kJ/m²	
Charpy Unnotched Impact Strength		ISO 179/1eU
-30°C	90 kJ/m²	
23°C	110 kJ/m²	
Notched Izod Impact Strength		ISO 180/A
-30°C	7.0 kJ/m²	
23°C	16 kJ/m²	
Hardness	Nominal Value Unit	Test Method
Ball Indentation Hardness	105 MPa	ISO 2039-1



Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature <sup>3</sup>		
0.45 MPa, Annealed	98.0 °C	ISO 75-2/B
1.8 MPa, Annealed	94.0 °C	ISO 75-2/A
Vicat Softening Temperature		
--	101 °C	ISO 306/B120
--	99.0 °C	ISO 306/B50
--	102 °C	ISO 306/A50
CLTE - Flow	9.0E-5 cm/cm/°C	ISO 11359-2
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+15 ohms·cm	IEC 60093
Electric Strength (1.50 mm)	35 kV/mm	IEC 60243-1
Relative Permittivity		IEC 60250
100 Hz	3.00	
1 MHz	2.90	
Dissipation Factor		IEC 60250
100 Hz	5.0E-3	
1 MHz	9.0E-3	
Comparative Tracking Index	600 V	IEC 60112
Flammability	Nominal Value Unit	Test Method
Flame Rating (1.5 mm)	HB	IEC 60695-11-10
Injection	Nominal Value Unit	
Drying Temperature	80 °C	
Drying Time	2.0 to 4.0 hr	
Processing (Melt) Temp	230 to 260 °C	
Mold Temperature	60 to 80 °C	
Injection Velocity	14 m/min	

## Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> 4h/80°C

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**Where to Buy**

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**Supplier****INEOS Styrolution**

Frankfurt, Germany

**Telephone:** +49 69 5095501200**Web:** <http://www.ineos-styrolution.com>

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**Distributor****ALBIS Plastic***ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.***Telephone:** +49-40-78105-0**Web:** <http://www.albis.com/>**Availability:** Algeria, Austria, Belgium, Bulgaria, China, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hong Kong, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, Turkey, United Kingdom**Amco Polymers****Telephone:** 800-262-6685**Web:** <http://www.amcopolymers.com/>**Availability:** North America**M. Holland Canada Company****Telephone:** 905-665-1168**Web:** <http://www.mholland.com/>**Availability:** Canada**M. Holland Company****Telephone:** 855-497-1403**Web:** <http://www.mholland.com/>**Availability:** Mexico, United States**PolyOne Distribution***PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.***Telephone:** 440-930-3004**Web:** <http://polyonedistribution.com/>**Availability:** Global**Ultrapolymers***Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.***Telephone:** +32-11-57-95-57**Web:** <http://www.ultrapolymers.com/>**Availability:** Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Ireland, Italy, Macedonia, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Turkey, United Kingdom