

**Product Texts**

Novodur® ECO HD M203FC BC50 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. Novodur® ECO HD M203FC BC50 is an ISCC compliant product leading to a substitution of fossil source styrene with ISCC certified bio-attributed styrene.

Carbon Footprint Reduction vs Fossil-Based (3rd party validated): 71 % (ISO 14044)

Attributed Content of ISCC-certified Bio-Circular Sources: 50 %

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melt volume-flow rate, MVR	31	cm <sup>3</sup> /10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-
Molding shrinkage, parallel	0.6	%	ISO 294-4, 2577
<sup>[C]</sup> Density of melt	927	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	0.218	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	2900	J/(kg K)	-
<sup>[C]</sup> Ejection temperature	90	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	2400	MPa	ISO 527
<sup>[C]</sup> Yield stress	46	MPa	ISO 527
<sup>[C]</sup> Yield strain	2.6	%	ISO 527
<sup>[C]</sup> Nominal strain at break	17	%	ISO 527
Flexural modulus, 23°C	2400	MPa	ISO 178
Flexural strength	70	MPa	ISO 178
<sup>[C]</sup> Charpy impact strength, +23°C	110	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	90	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	16	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	7	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, +23°C	16	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength	7	kJ/m <sup>2</sup>	ISO 180/1A
Temperature	-30	°C	-
Ball indentation hardness	107	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	94	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	98	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	99	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	90	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
<sup>[C]</sup> Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3.0	mm	-
Yellow Card available	yes	-	-
Burning rate, FMVSS, Thickness 1 mm	60 <sup>[1]</sup>	mm/min	ISO 3795 (FMVSS 302)

1: 2 mm [C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Electric strength	35	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	600	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Water absorption	0.95	%	Sim. to ISO 62
<sup>[C]</sup> Density	1050	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	230 - 260	°C	-
Mold temperature	60 - 80	°C	-

## Characteristics

### Processing

Injection Molding

### Chemical Resistance

Radiation Resistance

### Delivery form

Pellets

### Certifications

Contains renewable resources, Food contact, ISCC Plus

### Special Characteristics

High impact or impact modified, Sterilizable, Ethylene Oxide (EtO) Sterilization, Gamma irradiation sterilization

### Applications

Medical

### Features

High Gloss, Laser Markable

### Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

## Other text information

### 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