

Product Texts

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.

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|---|-------|------------------------|---------------|
| ISO Data | | | |
| ^[C] Melt volume-flow rate, MVR | 31 | cm ³ /10min | ISO 1133 |
| Temperature | 220 | °C | - |
| Load | 10 | kg | - |
| ^[C] Density of melt | 927 | kg/m ³ | - |
| ^[C] Thermal conductivity of melt | 0.218 | W/(m K) | - |
| ^[C] Spec. heat capacity of melt | 2900 | J/(kg K) | - |
| ^[C] Ejection temperature | 90 | °C | - |

[C]: CAMPUS

| Mechanical properties | Value | Unit | Test Standard |
|--|-------|-------------------|---------------|
| ISO Data | | | |
| ^[C] Tensile Modulus | 2400 | MPa | ISO 527 |
| ^[C] Yield stress | 46 | MPa | ISO 527 |
| ^[C] Yield strain | 2.6 | % | ISO 527 |
| ^[C] Nominal strain at break | 17 | % | ISO 527 |
| ^[C] Charpy impact strength, +23°C | 110 | kJ/m ² | ISO 179/1eU |
| ^[C] Charpy impact strength, -30°C | 90 | kJ/m ² | ISO 179/1eU |
| ^[C] Charpy notched impact strength, +23°C | 16 | kJ/m ² | ISO 179/1eA |
| ^[C] Charpy notched impact strength, -30°C | 7 | kJ/m ² | ISO 179/1eA |

[C]: CAMPUS

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

[C]: CAMPUS

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

[C]: CAMPUS

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

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

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

Chemical Resistance

Radiation Resistance

Certifications

Food contact, Food approval 10/2011, Food approval FDA 21 CFR, Medical Grade, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved, Drug Master File, Long term supply assurance

Applications

Medical

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