

Novodur HD M203FC

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

DESCRIPTION

Novodur® acrylonitrile butadiene styrene (ABS) polymers feature 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.

FEATURES

- Easy processing
- High gloss
- High performance in laser marking
- Sterilisable (ETO, NO2, Irradiation)

APPLICATIONS

- Food contact applications
- Medical devices
- Medical diagnostic equipment

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	31
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	16
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m ²	7
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m ²	110
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m ²	90
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	16
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m ²	7
Tensile Modulus	ISO 527	MPa	2400
Tensile Stress at Yield, 23 °C	ISO 527	MPa	46
Tensile Strain at Yield, 23 °C	ISO 527	%	2.6
Tensile Stress at Break, 23 °C	ISO 527	MPa	31
Tensile Strain at Break, 23 °C	ISO 527	%	> 15
Nominal Strain at Break, 23 °C	ISO 527	%	17
Flexural Modulus, 23 °C	ISO 178	MPa	2400
Flexural Strength, 23 °C	ISO 178	MPa	70
Hardness, Ball Indentation	ISO 2039-1	MPa	107

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Property, Test Condition	Standard	Unit	Values
Thermal Properties			
Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h)	ISO 306	°C	101
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	99
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	94
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	98
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	90
Electrical Properties			
Dielectric Strength, Short Time, 1.5 mm	IEC 60243-1	kV/mm	35
Comparative Tracking Index	IEC 60112	V	600
Other Properties			
Density	ISO 1183	kg/m ³	1050
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
Water Absorption, Saturated at 23 °C	ISO 62	%	0.95
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7
Melt Temperature Range	ISO 294	°C	230 - 260
Mold Temperature Range	ISO 294	°C	60 - 80
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4