INEOS STYROLUTION

ISCC International Sustainability & Carbon Certification

Novodur ECO HD M203FC BC50

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

DESCRIPTION

Novodur® acrylonitrile butadiene styrene (ABS) polymers feature high surface quality and good impact strength. Novodur® ECO 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.

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
Sustainability Properties			
Carbon Footprint Reduction vs Fossil-Based (3rd party validated)	ISO 14044	%	71
Attributed Content of ISCC-certified Bio-Circular Sources (min.)	-	%	50
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	31
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	16
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m²	7
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	110
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m²	90
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	16
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m²	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

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Property, Test Condition	Standard	Unit	Values
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
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/m³	1050
Burning rate (US-FMVSS), 2.0 mm	ISO 3795	mm/min	60
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