INEOS STYROLUTION

ISCC International Sustainability & Carbon Certification

Novodur ECO P2MC BC50

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

DESCRIPTION

Novodur® acrylonitrile butadiene styrene (ABS) polymers feature high surface quality and good impact strength. Novodur® ECO P2MC is an injection molding grade especially suitable for electroplating, providing high flowability. Novodur ECO P2MC BC50 is an ISCC compliant product leading to a substitution of fossil source styrene with ISCC certified bio-attributed styrene.

FEATURES

- Easy processing
- Designed for electroplating

APPLICATIONS

- Automotive exterior trim : mirror housings, exterior pillars & trims, spoilers
- Automotive electroplated parts
- Cosmetic packaging
- Shower heads

Property, Test Condition	Standard	Unit	Values
Sustainability Properties			
Carbon Footprint Reduction vs Fossil-Based (3rd party validated)	ISO 14044	%	64
Attributed Content of ISCC-certified Bio-Circular Sources (min.)	-	%	50
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	25
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	25
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m²	16
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m²	150
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	25
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m²	16
Tensile Modulus	ISO 527	MPa	2200
Tensile Stress at Yield, 23 °C	ISO 527	MPa	40
Tensile Strain at Yield, 23 °C	ISO 527	%	2.4
Tensile Stress at Break, 23 °C	ISO 527	MPa	31
Tensile Strain at Break, 23 °C	ISO 527	%	> 15

INEOS STYROLUTION

ISCC International Sustainability & Carbon Certification

Novodur ECO P2MC BC50

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

Property, Test Condition	Standard	Unit	Values
Nominal Strain at Break, 23 °C	ISO 527	%	16
Flexural Modulus, 23 °C	ISO 178	MPa	2100
Flexural Strength, 23 °C	ISO 178	MPa	62
Hardness, Ball Indentation	ISO 2039-1	MPa	91
Thermal Properties			
Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h)	ISO 306	°C	98
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	96
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	96
Coefficient of Linear Thermal Expansion	ISO 11359	10^{-6}/°C	100
Electrical Properties			
Dielectric Strength, Short Time, 1.0 mm	IEC 60243-1	kV/mm	37
Comparative Tracking Index	IEC 60112	V	600
Other Properties			
Density	ISO 1183	kg/m³	1030
Burning rate (US-FMVSS), 2.0 mm	ISO 3795	mm/min	50
Glow wire test (GWFI), 2.0 mm	IEC 60695-2-12	°C	700
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.2 - 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