INEOS STYROLUTION

Novodur Ultra 4000PG

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

DESCRIPTION

Novodur® Ultra 4000PG is an injection molding grade especially suitable for electroplating, providing enhanced heat resistance.

FEATURES

- Electroplating grade
- High heat resistance

APPLICATIONS

- Automotive exterior
- Radiator grills
- Rollover bar covers

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	6
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	23
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m²	10
Charpy Notched Impact Strength, 23° C	ISO 179	kJ/m²	20
Charpy Notched Impact Strength, -30 °C	ISO 179	kJ/m²	10
Tensile Stress at Yield, 23 °C	ISO 527	MPa	46
Tensile Strain at Yield, 23 °C	ISO 527	%	3.1
Tensile Strain at Break, 23 °C	ISO 527	%	> 15
Tensile Modulus	ISO 527	MPa	2400
Flexural Strength, 23 °C	ISO 178	MPa	73
Flexural Modulus, 23 °C	ISO 178	MPa	2350
Hardness, Ball Indentation	ISO 2039-1	MPa	100
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	107
Vicat Softening Temperature, VST/A/50 (10N, 50°C/h)	ISO 306	°C	115
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	98
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	103

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Coefficient of Linear Thermal Expansion	ISO 11359	10^(-6)/°C	90
Electrical Properties			
Dissipation Factor (100 Hz)	IEC 60250	10^(-4)	65
Dissipation Factor (1 MHz)	IEC 60250	10^(-4)	85
Dielectric Strength, Short Time, 1.5 mm	IEC 60243-1	kV/mm	38
Relative Permittivity (100 Hz)	IEC 60250	-	3.0
Relative Permittivity (1 MHz)	IEC 60250	-	2.9
Volume Resistivity	IEC 60093	Ohm*m	1E14
Surface Resistivity	IEC 60093	Ohm	1e+016
Comparative Tracking Index	IEC 60112	V	600
Other Properties			
Density	ISO 1183	kg/m³	1050
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.5 - 0.8
Melt Temperature Range	ISO 294	°C	230 - 260
Mold Temperature Range	ISO 294	°C	60 - 80
Injection Velocity	ISO 294	mm/s	240
Drying Temperature		°C	80
Drying Time		h	2 - 4