

Novodur Ultra 4140PG

Acrylonitrile Butadiene Styrene / Polycarbonate (ABS/PC)

**TECHNICAL
DATASHEET**

DESCRIPTION

Novodur® Ultra 4140PG is a PC modified plating grade combining high heat resistance and excellent impact strength with the unique surface properties of a Novodur® ABS material.

FEATURES

- Electroplating grade
- Very high impact strength
- High heat resistance

APPLICATIONS

- Auto front plated grill parts
- Auto interior high heat electroplating applications

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	9
Melt Volume Rate, 260 °C/5 kg	ISO 1133	cm ³ /10 min	13.5
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	39
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m ²	32
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	41
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m ²	33
Tensile Stress at Yield, 23 °C	ISO 527	MPa	46
Tensile Strain at Yield, 23 °C	ISO 527	%	3.5
Tensile Modulus	ISO 527	MPa	2100
Flexural Strength, 23 °C	ISO 178	MPa	72
Flexural Modulus, 23 °C	ISO 178	MPa	2100
Hardness, Ball Indentation	ISO 2039-1	MPa	92
Tensile Strain at Break, 23 °C	ISO 527	%	> 15
Thermal Properties			
Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h)	ISO 306	°C	107.5
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	105.5

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Property, Test Condition	Standard	Unit	Values
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	99
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	108
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	90
Electrical Properties			
Dissipation Factor (100 Hz)	IEC 60250	10 ⁻⁴	40
Dissipation Factor (1 MHz)	IEC 60250	10 ⁻⁴	85
Dielectric Strength, Short Time, 1.0 mm	IEC 60243-1	kV/mm	37
Relative Permittivity (100 Hz)	IEC 60250	-	3
Relative Permittivity (1 MHz)	IEC 60250	-	3
Comparative Tracking Index	IEC 60112	V	600
Volume Resistivity	IEC 60093	Ohm*m	>10 ¹³
Surface Resistivity	IEC 60093	Ohm	>10 ¹⁵
Other Properties			
Density	ISO 1183	kg/m ³	1070
Burning rate (US-FMVSS), 2.0 mm	ISO 3795	mm/min	34
Glow wire test (GWFI), 2.0 mm	IEC 60695-2-12	°C	700
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.6 - 0.8
Melt Temperature Range	ISO 294	°C	240 - 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