

Novodur Ultra 4140PG

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TECHNICAL DATASHEET

DESCRIPTION

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

- Easy processing
- Designed for electroplating
- Heat resistance
- Low temperature toughness

APPLICATIONS

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

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			
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
Charpy Unnotched Impact Strength, 23 °C	ISO 579	kJ/m ²	no break
Charpy Unnotched Impact Strength, -30 °C	ISO 579	kJ/m ²	no break
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
Tensile Modulus	ISO 527	MPa	2100
Tensile Stress at Yield, 23 °C	ISO 527	MPa	46
Tensile Strain at Yield, 23 °C	ISO 527	%	3.5
Tensile Stress at Break, 23 °C	ISO 527	MPa	37
Tensile Strain at Break, 23 °C	ISO 527	%	> 15
Nominal Strain at Break, 23 °C	ISO 527	%	26
Flexural Modulus, 23 °C	ISO 178	MPa	2100

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Property, Test Condition	Standard	Unit	Values
Flexural Strength, 23 °C	ISO 178	MPa	72
Hardness, Ball Indentation	ISO 2039-1	MPa	92
Thermal Properties			
Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h)	ISO 306	°C	108
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	106
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			
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/m ³	1070
Glow wire test (GWFI), 2.0 mm	IEC 60695-2-12	°C	700
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.5 - 0.8
Melt Temperature Range	ISO 294	°C	240 - 270
Mold Temperature Range	ISO 294	°C	60 - 80
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4