INEOS STYROLUTION

Novodur Ultra 4000PG

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

DESCRIPTION

Novodur® acrylonitrile butadiene styrene (ABS) polymers feature high surface quality and good impact strength. Novodur® Ultra 4000PG is an injection molding grade especially suitable for electroplating, providing enhanced heat resistance.

FEATURES

- Designed for electroplating
- High heat resistance
- Rigidity

APPLICATIONS

- Shower heads

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	7
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	23
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m²	10
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	23
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m²	10
Tensile Modulus	ISO 527	MPa	2400
Tensile Stress at Yield, 23 °C	ISO 527	MPa	46
Tensile Strain at Yield, 23 °C	ISO 527	%	3.1
Tensile Stress at Break, 23 °C	ISO 527	MPa	36
Nominal Strain at Break, 23 °C	ISO 527	%	17
Flexural Modulus, 23 °C	ISO 178	MPa	2350
Flexural Strength, 23 °C	ISO 178	MPa	73
Hardness, Ball Indentation	ISO 2039-1	MPa	110
Thermal Properties			
Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h)	ISO 306	°C	109
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	107

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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	98
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	103
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	38
Comparative Tracking Index	IEC 60112	V	600
Other Properties			
Density	ISO 1183	kg/m³	1050
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
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
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4