INEOS STYROLUTION

Novodur Ultra 4105

Acrylonitrile Butadiene Styrene / Polycarbonate (ABS/PC)

TECHNICAL DATASHEET

DESCRIPTION

Novodur® Ultra 4105 is a PC modified high heat injection molding grade with high impact strength.

FEATURES

- Very high impact strength
- High heat resistance

APPLICATIONS

- Automotive interior pillar cappings
- Glove box components
- Centre consoles

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	9
Melt Volume Rate, 260 °C/5 kg	ISO 1133	cm³/10 min	14
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	38
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m²	31
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	40
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m²	32
Tensile Stress at Yield, 23 °C	ISO 527	MPa	45
Tensile Strain at Yield, 23 °C	ISO 527	%	3.7
Tensile Modulus	ISO 527	MPa	2000
Flexural Strength, 23 °C	ISO 178	MPa	70
Flexural Modulus, 23 °C	ISO 178	MPa	2000
Hardness, Ball Indentation	ISO 2039-1	MPa	94
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
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

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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}	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/m³	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