

Novodur Ultra 4105

Acrylonitrile-Butadiene-Styrene/Polycarbonat (ABS/PC)

**TECHNICAL
DATASHEET**

DESCRIPTION

Novodur® acrylonitrile butadiene styrene (ABS) polymers feature high surface quality and good impact strength. Novodur® Ultra 4105 is a PC modified high heat injection molding grade with very high impact strength. Furthermore, it is of low emission, i.e. suitable to produce parts which fulfill interior emission requirements of the automotive OEMs.

FEATURES

- High gloss
- Heat resistance
- Low temperature toughness
- Low emission

APPLICATIONS

- Unpainted automotive interior: seat trims, centre consoles
- Automotive exterior trim : mirror housings, exterior pillars & trims, spoilers
- Painted/ decorated Automotive interior: glove boxes, centre consoles, instrument panel trims
- Housings for electrical & electronic devices

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	14
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	40
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m ²	32
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	38
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m ²	31
Tensile Modulus	ISO 527	MPa	2000
Tensile Stress at Yield, 23 °C	ISO 527	MPa	45
Tensile Strain at Yield, 23 °C	ISO 527	%	3.7
Tensile Stress at Break, 23 °C	ISO 527	MPa	38

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Property, Test Condition	Standard	Unit	Values
Tensile Strain at Break, 23 °C	ISO 527	%	> 15
Nominal Strain at Break, 23 °C	ISO 527	%	25
Flexural Modulus, 23 °C	ISO 178	MPa	2000
Flexural Strength, 23 °C	ISO 178	MPa	70
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
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 - 260
Mold Temperature Range	ISO 294	°C	60 - 80
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4