

NOVODUR ULTRA 4255

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 4255 is PC modified injection molding grade combining very high impact strength at room as well as at low temperature, 100 % ductility at -30 °C, high heat resistance and a best in class flowability. Furthermore, it is of low emission, i.e. suitable to produce parts which fulfill interior emission requirements of the automotive OEMs.

FEATURES

- Heat resistance
- Low temperature toughness
- Puncture resistance
- Low emission
- Low emission
- Good paintability

APPLICATIONS

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

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 260 °C/5 kg	ISO 1133	cm ³ /10 min	17
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	55
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m ²	55
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 (73 °F)	ASTM D 256	kJ/m ²	50
Izod Notched Impact Strength, -30 °C (-22 °F)	ASTM D 256	kJ/m ²	48
Tensile Modulus	ISO 527	MPa	2100
Tensile Stress at Yield, 23 °C	ISO 527	MPa	47
Tensile Strain at Yield, 23 °C	ISO 527	%	4.1

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Property, Test Condition	Standard	Unit	Values
Tensile Stress at Break, 23 °C	ISO 527	MPa	42
Tensile Strain at Break, 23 °C	ISO 527	%	> 30
Nominal Strain at Break, 23 °C	ISO 527	%	88
Flexural Modulus, 23 °C	ISO 178	MPa	2400
Flexural Strength, 23 °C	ISO 178	MPa	70
Hardness, Ball Indentation	ISO 2039-1	MPa	97
Thermal Properties			
Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h)	ISO 306	°C	113
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	110
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	103
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	116
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	85
Electrical Properties			
Dielectric Strength, Short Time, 1.0 mm	IEC 60243-1	kV/mm	35
Comparative Tracking Index	IEC 60112	V	275
Other Properties			
Density	ISO 1183	kg/m ³	1100
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
Glow wire test (GWFI), 2.0 mm	IEC 60695-2-12	°C	700
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.55 - 0.75
Melt Temperature Range	ISO 294	°C	250 - 270
Mold Temperature Range	ISO 294	°C	60 - 80
Drying Temperature	-	°C	80 - 90
Drying Time	-	h	2 - 4