

Novodur P3H-AT

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

DESCRIPTION

Novodur® P3H-AT is a general purpose injection molding grade with enhanced chemical resistance and contains an antistatic additive.

FEATURES

- High chemical resistance
- Medium impact strength
- Good stiffness

APPLICATIONS

- Household appliances
- Mixers
- Washing machines

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	13
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	21
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m ²	11
Charpy Notched Impact Strength, 23 °C	ISO 179/1eA	kJ/m ²	20
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m ²	11
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m ²	180
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m ²	90
Tensile Stress at Yield, 23 °C	ISO 527	MPa	48
Tensile Strain at Yield, 23 °C	ISO 527	%	2.4
Tensile Modulus	ISO 527	MPa	2500
Flexural Strength, 23 °C	ISO 178	MPa	71
Flexural Modulus, 23 °C	ISO 178	MPa	2400
Hardness, Ball Indentation	ISO 2039-1	MPa	108
Tensile Strain at Break, 23 °C	ISO 527	%	> 15
Thermal Properties			
Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h)	ISO 306	°C	100
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	98

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Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	92
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	96
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	90
Electrical Properties			
Dissipation Factor (100 Hz)	IEC 62631-2-1	10 ⁻⁴	60
Dissipation Factor (1 MHz)	IEC 62631-2-1	10 ⁻⁴	80
Dielectric Strength, Short Time, 1.0 mm	IEC 60243-1	kV/mm	33
Relative Permittivity (100 Hz)	IEC 62631-2-1	-	3.1
Relative Permittivity (1 MHz)	IEC 62631-2-1	-	2.9
Comparative Tracking Index	IEC 60112	V	600
Volume Resistivity	IEC 62631-3-1	Ohm*m	>10 ¹³
Surface Resistivity	IEC 62631-3-1	Ohm	>10 ¹⁵
Other Properties			
Density	ISO 1183	kg/m ³	1050
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
Burning rate (US-FMVSS), 2.0 mm	ISO 3795	mm/min	50
Glow wire test (GWFI), 2.0 mm	IEC 60695-2-12	°C	650
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7
Melt Temperature Range	ISO 294	°C	230 - 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