INEOS STYROLUTION

Novodur E401

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

DESCRIPTION

Novodur® E401 is a high impact extrusion grade with good surface appearance

FEATURES

- High impact strength
- High melt strength
- High surface quality

APPLICATIONS

- Extruded sheets
- Thermoformed parts
- Substate material for co-extrusion
- Refrigerator inliner

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	5
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	32
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m²	19
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	32
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m²	19
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	210
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m²	170
Tensile Stress at Yield, 23 °C	ISO 527	MPa	40
Tensile Strain at Yield, 23 °C	ISO 527	%	2.5
Tensile Modulus	ISO 527	MPa	1900
Flexural Strength, 23 °C	ISO 178	MPa	60
Flexural Modulus, 23 °C	ISO 178	MPa	1900
Hardness, Ball Indentation	ISO 2039-1	MPa	82
Thermal Properties			
Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h)	ISO 306	°C	101
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	99

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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	94
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	100
Coefficient of Linear Thermal Expansion	ISO 11359	10^{-6}/°C	90
Electrical Properties			
Dissipation Factor (100 Hz)	IEC 62631-2-1	10^{-4}	50
Dissipation Factor (1 MHz)	IEC 62631-2-1	10^{-4}	90
Dielectric Strength, Short Time, 1.0 mm	IEC 60243-1	kV/mm	35
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	$>10^{14}$
Other Properties			
Density	ISO 1183	kg/m³	1030
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
Burning rate (US-FMVSS), 2.0 mm	ISO 3795	mm/min	55
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	210 - 260
Injection Velocity	ISO 294	mm/s	240
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4