

# Novodur P4XF

Acrylonitrile Butadiene Styrene (ABS)

## TECHNICAL DATASHEET

### DESCRIPTION

P4XF is an ABS with very high flowability and at the same time offers an attractive profile of impact and heat resistance.

### FEATURES

- very high melt flow

### APPLICATIONS

- thin-walled applications
- large housings
- multi-cavity tools

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm <sup>3</sup> /10 min	60
<b>Mechanical Properties</b>			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m <sup>2</sup>	14
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m <sup>2</sup>	7
Charpy Notched Impact Strength, 23 °C	ISO 179/1eA	kJ/m <sup>2</sup>	14
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m <sup>2</sup>	7
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m <sup>2</sup>	105
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m <sup>2</sup>	100
Tensile Modulus	ISO 527	MPa	2400
Tensile Stress at Yield, 23 °C	ISO 527	MPa	43
Tensile Strain at Yield, 23 °C	ISO 527	%	2.2
Tensile Strain at Break, 23 °C	ISO 527	%	> 15
Flexural Strength, 23 °C	ISO 178	MPa	70
Flexural Modulus, 23 °C	ISO 178	MPa	2400
Hardness, Ball Indentation	ISO 2039-1	MPa	105
<b>Thermal Properties</b>			
Vicat Softening Temperature, VST/B/120 (50N, 120 °C/h)	ISO 306	°C	98
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	96

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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	90
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	94
Coefficient of Linear Thermal Expansion	ISO 11359	10 <sup>-6</sup> /°C	90
<b>Electrical Properties</b>			
Dissipation Factor (100 Hz)	IEC 62631-2-1	10 <sup>-4</sup>	50
Dissipation Factor (1 MHz)	IEC 62631-2-1	10 <sup>-4</sup>	90
Dielectric Strength, Short Time, 1.5 mm	IEC 60243-1	kV/mm	35
Relative Permittivity (100 Hz)	IEC 62631-2-1	-	3
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 <sup>13</sup>
Surface Resistivity	IEC 62631-3-1	Ohm	>10 <sup>15</sup>
<b>Other Properties</b>			
Density	ISO 1183	kg/m <sup>3</sup>	1050
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
Water Absorption, Saturated at 23 °C	ISO 62	%	0.95
<b>Processing</b>			
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