

Luran 378P G7

Styrene Acrylonitrile (SAN)

TECHNICAL DATASHEET

DESCRIPTION

Luran® 378P G7 is a glass fiber-reinforced grade (35% GF) of SAN with very high stiffness and low thermal coefficient of linear expansion. It features good chemical and weathering resistance and is suitable for extrusion and injection molding.

FEATURES

- Excellent mechanical strength
- Excellent dimensional stability
- Good heat resistance
- Chemical resistance

APPLICATIONS

- Window frames
- Precision parts
- Machine construction

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	4
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	4
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m ²	4
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	4
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m ²	17
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m ²	17
Tensile Stress at Yield, 23 °C	ISO 527	MPa	110
Tensile Strain at Break, 23 °C	ISO 527	%	2
Tensile Modulus	ISO 527	MPa	12000
Tensile Creep Modulus (1000h)	ISO 899	MPa	7500
Tensile Creep Modulus (1h)	ISO 899	MPa	9500
Flexural Strength, 23 °C	ISO 178	MPa	150
Hardness, Ball Indentation	ISO 2039-1	MPa	240
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	109
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	104

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Property, Test Condition	Standard	Unit	Values
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	25
Thermal Conductivity	DIN 52612-1	W/(m K)	0.215
Electrical Properties			
Dielectric Constant (100 Hz)	IEC 62631-2-1	-	3.5
Dissipation Factor (100 Hz)	IEC 62631-2-1	10 ⁻⁴	70
Dissipation Factor (1 MHz)	IEC 62631-2-1	10 ⁻⁴	100
Volume Resistivity	IEC 62631-3-1	Ohm*m	10 ¹⁴
Surface Resistivity	IEC 62631-3-1	Ohm	>10 ¹⁵
Other Properties			
Density	ISO 1183	kg/m ³	1360
Bulk Density (with external lubricant)	-	kg/m ³	850
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.25
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.1
Melt Temperature Range	ISO 294	°C	220 - 260
Mold Temperature Range	ISO 294	°C	40 - 80
Injection Velocity	ISO 294	mm/s	200
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4