Luran 378P G10

Styrene Acrylonitrile (SAN)

TECHNICAL DATASHEET

DESCRIPTION

Luran® 378P G10 is a glass fiber-reinforced grade (50% GF) of SAN with extremely high stiffness and very low thermal coefficient of linear expansion. It features good chemical and weathering resistance and is suitable for extrusion and injection molding.

FEATURES

- Developmental Product
- Contact Styrolution for details
- Outstanding mechanical strength
- Chemical resistance
- Excellent dimensional stability
- Good heat 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	cm³/10 min	2.5
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	5
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m²	6
Izod Unnotched Impact Strength, 23 °C	ISO 180	kJ/m²	13.5
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	5
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m²	5
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	11
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m²	11
Tensile Strain at Break, 23 °C	ISO 527	%	0.8
Tensile Modulus	ISO 527	MPa	16500
Hardness, Rockwell	-	M scale	91
Hardness, Ball Indentation	ISO 2039-1	MPa	276
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	111

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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	104
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	16
Thermal Conductivity	ISO 22007-4	W/(m K)	0.254
Electrical Properties			
Dielectric Constant (100 Hz)	IEC 62631-2-1	-	4
Dissipation Factor (100 Hz)	IEC 62631-2-1	10^{-4}	74
Dissipation Factor (1 MHz)	IEC 62631-2-1	10^{-4}	106
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/m³	1500
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.2
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	4

Typical values for uncolored products
Please note that all processing data stated are only indicative and may vary depending on the individual processing complexities.
Please consult our local sales or technical representatives for details.

SUPPLY FORM

Luran® 378P G10 is a developmental product. Please contact your Styrolution account manager for a provisional technical data sheet or other information.

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PRODUCT SAFETY

Given appropriate processing of the products and suitable ventilation measures in production areas, no adverse effects on the health of process operators have been found. Workplace limits for styrene and acrylonitrile, as given in the national listings applicable, must be adhered to. The values currently applicable in Germany under TRGS 900 (issue of October, 2002) for maximum workplace concentrations are as follows. Styrene: 20 ml/m³ = 86 mg/m³; acrylonitrile: 3 ml/m³ = 7 mg/m³. Appendix I of Directive 67/548/EWG and TRGS 905 (issue of October, 2002) classify acrylonitrile in carcinogenic category II (substances which should be regarded as carcinogenic in humans). Experience has shown that during appropriate processing of Luran with suitable ventilation the values obtained are well below the limits mentioned above. TRGS 402 (Germany) can be used for determining and assessing the concentrations of hazardous substances in the air within working areas. Inhalation of gaseous degradation products, such as those which may arise on severe overheating of the material or during pumped evacuation, must be avoided. Further information can be found in our Luran safety data sheets.

DISCLAIMER

The above mentioned data are accurate to the best of our knowledge. They are based upon reputable labs and industry standard testing methods. These are only typical values and actual product specification may deviate at industrial range. Therefore, no data in this technical data sheet shall constitute a warranty or representation regarding product features, fitness of the product for a specific purpose or application or its processability. INEOS Styrolution disclaims all liability in connection therewith. The customer himself is required to verify whether or not the product is suitable for the further processing or application intended and whether or not the product complies with the relevant statutory requirements. Unless explicitly and individually otherwise agreed in writing, INEOS Styrolution's sole and exclusive liability with respect to its products is set forth in INEOS Styrolution's General Terms and Conditions for Sale.

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