

Luran SAN 51

Styrene Acrylonitrile (SAN)

TECHNICAL
DATASHEET

DESCRIPTION

Luran® SAN 51 is an injection molding grade of SAN with excellent chemical resistance and toughness.

FEATURES

- Good transparency
- Very good chemical resistance
- Toughness

APPLICATIONS

- Lighters
- Fan blade
- Battery housings
- Tooth brush handles

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	15
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	2
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	2
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	21
Tensile Stress at Yield, 23 °C	ISO 527	MPa	76
Tensile Strain at Break, 23 °C	ISO 527	%	3.8
Tensile Modulus	ISO 527	MPa	3800
Flexural Strength, 23 °C	ISO 178	MPa	125
Flexural Modulus, 23 °C	ISO 178	MPa	3900
Hardness, Rockwell	ISO 2039-2	R scale	126
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	106
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	102
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	104
Other Properties			
Density	ISO 1183	kg/m³	1080

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Property, Test Condition	Standard	Unit	Values
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.3
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.3 - 0.7
Melt Temperature Range	ISO 294	°C	220 - 260
Mold Temperature Range	ISO 294	°C	40 - 80
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 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 is delivered in the form of cylindrical and lenticular pellets. The bulk density of the pellets is from 0.55 to 0.65 g/cm³. Values may differ for special grades. Standard Packaging unit: 25 kg paper bag. In addition, delivery in larger units of up to 1000 kg (IBC = Intermediate Bulk Container) or silo trucks can be arranged. In dry areas with normal temperature control, Luran pellets can be stored for relatively long periods of time without any change in mechanical properties. With unstable colors, however, storage over a number of years can give rise to some change in color. Under poor storage conditions, Luran absorbs moisture, but this can be removed by drying.

PROCESSING

Luran SAN 51 is primarily processed through injection molding but any process suitable for thermoplastic molding compositions may also be used.

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

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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.
