

Luran HD 20

Styrene Acrylonitrile (SAN)

TECHNICAL DATASHEET

DESCRIPTION

Luran® HD 20 is an easy-flow grade of SAN especially designed for the medical market. It is suitable for moldings with very thin walls and / or adverse flow length to wall ratio. It features very good transparency and a light intrinsic color.

FEATURES

- Full HD Service Package
- Easy flow
- Excellent transparency
- Good chemical resistance
- Resistant to beta and gamma sterilization
- Very good dimensional stability

APPLICATIONS

- Sample holders
- Inhalator housings
- Vakuum vials

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	22
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	2
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m ²	2
Charpy Notched Impact Strength, 23° C	ISO 179	kJ/m ²	2
Charpy Unnotched, 23 °C	ISO 179	kJ/m ²	16
Charpy Unnotched, -30 °C	ISO 179	kJ/m ²	16
Tensile Stress at Yield, 23 °C	ISO 527	MPa	72
Tensile Strain at Break, 23 °C	ISO 527	%	3
Tensile Modulus	ISO 527	MPa	3700
Tensile Creep Modulus (1000h)	ISO 899	MPa	2800
Tensile Creep Modulus (1h)	ISO 899	MPa	3500
Flexural Strength, 23 °C	ISO 178	MPa	120
Hardness, Rockwell		M scale	M83
Hardness, Ball Indentation	ISO 2039-1	MPa	165

Luran HD 20

Styrene Acrylonitrile (SAN)

TECHNICAL DATASHEET

Property, Test Condition	Standard	Unit	Values
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	86
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	99
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	70
Thermal Conductivity	DIN 52612-1	W/(m K)	0.17
Electrical Properties			
Dielectric Constant (100 Hz)	IEC 60250	-	3
Dissipation Factor (100 Hz)	IEC 60250	10 ⁻⁴	40
Dissipation Factor (1 MHz)	IEC 60250	10 ⁻⁴	70
Volume Resistivity	IEC 60093	Ohm*m	1E14
Surface Resistivity	IEC 60093	Ohm	>1E15
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.569
Light Transmission at 550 nm	ASTM D 1003	%	>89
Haze	ASTM D 1003	%	<1
Other Properties			
Density	ISO 1183	kg/m ³	1080
Bulk Density (with external lubricant)		kg/m ³	650
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.20
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
Injection Velocity	ISO 294	mm/s	200
Drying Temperature		°C	80
Drying Time		h	2 - 4