Luran® HD-20

Styrene Acrylonitrile

BASF Corporation

Product Description
Easy-flow grade, suitable for mouldings with very thin walls and / or adverse flow length to wall ratio. Luran® HD-20 is compliant with Pharmacopoeia and Biocompatibility- Tests (USP Class VI and ISO 10993-5) in Europe and United States. However, the Biocompatibility - Tests were recorded on test specimens of Luran® HD-20 to show compatibility of the material in general and are not part of any continuous production control. The manufacturer has to ensure in any case that the medical device or pharmaceutical application manufactured using BASF plastics is safe, lawful and technically suitable for the intended use.

General		
Material Status	• Commercial: Active	
Availability	• Europe	
Features	• Good Flow	
Uses	• Thin-walled Parts	
Agency Ratings	• ISO 10993 Part 5	• USP Class VI
Processing Method	• Injection Molding	

Physical	Nominal Value	Unit	Test Method
Density	1.08	g/cm³	ISO 1183
Apparent Density	0.55 to 0.65	g/cm³	ISO 60
Melt Volume-Flow Rate (MVR)			ISO 1133
200°C/10.0 kg	22.0	cm³/10min	
200°C/21.6 kg	27.0	cm³/10min	
Molding Shrinkage	0.30 to 0.70	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	0.20	%	ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	3700	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	72.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.0	%	ISO 527-2
Tensile Creep Modulus (1000 hr)	2800	MPa	ISO 899-1
Flexural Strength (3°C)	120	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	2.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	16	kJ/m²	ISO 179/1eU
Notched Izod Impact Strength (23°C)	2.00	kJ/m²	ISO 180/1A

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	83		ISO 2039-2
Ball Indentation Hardness (H 358/30)	165	MPa	ISO 2039-1

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	99.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	86.0	°C	ISO 75-2/A
Vicat Softening Temperature	106	°C	ISO 306/B50
CLTE - Flow (23 to 80°C)	0.000070	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.17	W/m/K	DIN 52612
Maximum Service Temperature - Short Cycle Operation	85	°C	

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohm·cm	IEC 60093
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.00		
23°C, 1 MHz	2.70		
Dissipation Factor			IEC 60250
23°C, 100 Hz	0.0040		
23°C, 1 MHz	0.0070		
Electric Strength [2] (1.00 mm)	34	kV/mm	IEC 60243-1

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Tuesday, December 22, 2009

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
0.800 mm	HB		
1.60 mm	HB		

Additional Information	Nominal Value	Unit
Polymer Abbreviation	SAN	

Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	2.0 to 4.0	hr
Processing (Melt) Temp	220 to 260	°C
Mold Temperature	40.0 to 80.0	°C

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] K20/P50