

LG SAN 80HF

Styrene Acrylonitrile

LG Chem Ltd.

Message:

Description
High Transparency, Heat Resistance, Chemical Resistance
Application
Refrigerator Sleeves, Miscellaneous

General Information			
UL YellowCard	E67171-248684		
Additive	Mold Release		
Features	Good Chemical Resistance		
	High Clarity		
	High Heat Resistance		
Uses	Electrical/Electronic Applications		
	Kitchenware		
Appearance	Clear/Transparent		
Forms	Pellets		
Processing Method	Injection Molding		
Multi-Point Data	Specific Heat vs. Temperature (ISO 11403-2)		
	Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.07	g/cm³	ASTM D792
--	1070	kg/m³	ISO 1183 ¹
Melt Mass-Flow Rate (MFR)			ASTM D1238
200°C/5.0 kg	3.0	g/10 min	
220°C/10.0 kg	29	g/10 min	
230°C/3.8 kg	10	g/10 min	
Melt volume-flow rate (220°C/10.0 kg)	31.0	cm³/10min	ISO 1133 ²
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.70	%	ASTM D955
Water Absorption (Saturation)	0.16	%	ISO 62 ³
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	123		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
3.20 mm ⁴	3110	MPa	ASTM D638

--	3300	MPa	ISO 527-2 ⁵
Tensile Strength			
Yield, 3.20 mm ⁶	73.5	MPa	ASTM D638
Break	70.0	MPa	ISO 527-2 ⁷
Tensile Elongation			
Break, 3.20 mm ⁸	6.0	%	ASTM D638
Break	6.0	%	ISO 527-2 ⁹
Flexural Modulus ¹⁰ (3.20 mm)	3680	MPa	ASTM D790
Flexural Strength ¹¹ (3.20 mm)	118	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength			ISO 179/1eA ¹²
-30°C	2.00	kJ/m ²	
23°C	2.80	kJ/m ²	
Charpy impact strength			ISO 179/1eU ¹³
-30°C	4.80	kJ/m ²	
23°C	13.0	kJ/m ²	
Notched Izod Impact			ASTM D256
-30°C, 6.40 mm	9.8	J/m	
23°C, 6.40 mm	9.8	J/m	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.40 mm)	90.0	°C	ASTM D648
Glass Transition Temperature ¹⁴	110	°C	ISO 11357-2 ¹⁵
Vicat Softening Temperature			
--	100	°C	ASTM D1525
50°C/h, B (50N)	100	°C	ISO 306 ¹⁶
CLTE			ISO 11359-2 ¹⁷
Flow	6.7E-5	cm/cm/°C	
Transverse	6.7E-5	cm/cm/°C	
RTI Elec	50.0	°C	UL 746
RTI Imp	50.0	°C	UL 746
RTI Str	50.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface resistivity	> 1.0E+15	ohms	IEC 60093 ¹⁸
Volume resistivity	> 1.0E+13	ohms·m	IEC 60093 ¹⁹
Electric strength	51	kV/mm	IEC 60243-1 ²⁰
Comparative tracking index	375		IEC 60112 ²¹
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.60 mm	HB		
3.20 mm	HB		
Burning Behav. at thickness h (3.20 mm, UL)	HB		ISO 1210 ²²

Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	< 0.010	%
Rear Temperature	170 to 190	°C
Middle Temperature	180 to 200	°C
Front Temperature	190 to 210	°C
Nozzle Temperature	190 to 220	°C
Processing (Melt) Temp	190 to 220	°C
Mold Temperature	40.0 to 70.0	°C
Back Pressure	29.4 to 58.8	MPa
Screw Speed	30 to 60	rpm

NOTE

1.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
2.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
3.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
4.	1.0 mm/min
5.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
6.	50 mm/min
7.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
8.	50 mm/min
9.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
10.	15 mm/min
11.	15 mm/min
12.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
13.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
14.	10 °C/min
15.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
16.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

17.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
18.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
19.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
20.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
21.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
22.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

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