

LG SAN 82TR

Styrene Acrylonitrile

LG Chem Ltd.

Message:

LG SAN 82TR

Application: Products demanding high transparency such as refrigerator sleeves.

Features: SAN from LG chemical has excellent heat resistance, chemical resistance, mechanical properties, processability and transparency. SAN resin is widely used for production of electric/electronic components, automobile components and household articles.

General Information	
UL YellowCard	E67171-248684
Features	Good Chemical Resistance
	Good Processability
	High Clarity
	High Heat Resistance
Uses	Automotive Applications
	Electrical/Electronic Applications
	Household Goods
Appearance	Clear/Transparent
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/cm ³	ASTM D792
--	1070	kg/m ³	ISO 1183 ¹
Melt Mass-Flow Rate (MFR)			ASTM D1238
200°C/5.0 kg	5.0	g/10 min	
220°C/10.0 kg	53	g/10 min	
230°C/3.8 kg	18	g/10 min	
Melt volume-flow rate (220°C/10.0 kg)	59.9	cm ³ /10min	ISO 1133 ²
Molding Shrinkage - Flow	0.40 to 0.70	%	ASTM D955
Water Absorption (Saturation)	0.14	%	ISO 62 ³
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	124		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ⁴	3080	MPa	ASTM D638

--	3100	MPa	ISO 527-2 ⁵
Tensile Strength			
Yield ⁶	66.7	MPa	ASTM D638
Break	64.0	MPa	ISO 527-2 ⁷
Tensile Elongation			
Break ⁸	6.0	%	ASTM D638
Break	5.0	%	ISO 527-2 ⁹
Flexural Modulus ¹⁰	3600	MPa	ASTM D790
Flexural Strength ¹¹ (Yield)	108	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	3.00	kJ/m ²	
Charpy impact strength			ISO 179/1eU ¹³
-30°C	5.00	kJ/m ²	
23°C	13.0	kJ/m ²	
Notched Izod Impact			ASTM D256
-30°C, 6.35 mm	9.8	J/m	
23°C, 6.35 mm	9.8	J/m	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.35 mm)	90.0	°C	ASTM D648
Glass Transition Temperature ¹⁴	110	°C	ISO 11357-2 ¹⁵
Vicat Softening Temperature			
--	101	°C	ASTM D1525 ¹⁶
50°C/h, B (50N)	98.4	°C	ISO 306 ¹⁷
CLTE			ISO 11359-2 ¹⁸
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 ¹⁹
Volume resistivity	> 1.0E+13	ohms · m	IEC 60093 ²⁰
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.59 mm	HB		
3.18 mm	HB		
Burning Behav. at thickness h (3.20 mm, UL)	HB		ISO 1210 ²¹
Injection	Nominal Value	Unit	
Drying Temperature	80.0 to 90.0	°C	

Drying Time	2.0 to 4.0	hr
Processing (Melt) Temp	190 to 230	°C
Mold Temperature	40.0 to 80.0	°C
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.	Rate A (50°C/h), Loading 2 (50 N)	
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.

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