Lustran® SAN 51

Styrene Acrylonitrile

Styrolution

Message:

Lustran SAN 51 resin is an injection molding grade of transparent SAN (styrene acrylonitrile) thermoplastic. Lustran SAN 51 resin is the toughest grade with the best chemical resistance in the Lustran SAN product line. It has a large molding window and is easy to process. Lustran SAN 51 resin is available in natural (000000) color.
Lustran SAN 51 resin is used in demanding applications requiring extra toughness and superior chemical resistance. Typical applications include industrial battery cases and disposable lighters.
Lustran SAN 51 performs exceptionally well in applications that are subject to demanding environments. Finished products are resistant to heat deformation, scratching, and chemicals, such as acids, alkalies, and petroleum products. Common solvents, such as MEK and THF, can be used for bonding Lustran SAN 51. Parts molded out of Lustran SAN 51 resin also accept various methods of printing.
As with any product, use of Lustran SAN 51 resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
UL YellowCard	E44741-235670		
Features	Excellent printability Workability, good Scratch resistance Good chemical resistance alkali resistance Fuel resistance Heat resistance, high acid resistance Good toughness		
Uses	Battery box		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.07	g/cm³	ASTM D792
Specific Volume	0.930	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	5.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.30 - 0.40	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	83		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	3400	MPa	ASTM D638
Tensile Strength (Break)	76.0	MPa	ASTM D638
Flexural Modulus	3600	MPa	ASTM D790

Flexural Strength (Yield)	131	MPa	ASTM D790
Deformation Under Load [1] (50°C, 28 MPa)	1.50	%	ASTM D621
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.20 mm)	24	J/m	ASTM D256
Unnotched Izod Impact (3.20 mm)	370	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
1.8 MPa, unannealed, 12.7mm	96.0	°C	ASTM D648
1.8 MPa, annealed, 12.7mm	104	°C	ASTM D648
Vicat Softening Temperature	110	°C	ASTM D1525 [2]
CLTE - Flow	6.8E-5	cm/cm/°C	ASTM D696
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.570		ASTM D542
Haze (3200 µm)	2.0	%	ASTM D1003
Injection	**Nominal Value**	**Unit**	
Drying Temperature			
A	82.0 - 88.0	°C	
B	71.0 - 77.0	°C	
Drying Time			
A	2.0	hr	
B	4.0	hr	
Suggested Max Moisture	< 0.20	%	
Suggested Shot Size	50 - 70	%	
Suggested Max Regrind	20	%	
Rear Temperature	175 - 185	°C	
Middle Temperature	190 - 200	°C	
Front Temperature	205 - 215	°C	
Nozzle Temperature	205 - 215	°C	
Processing (Melt) Temp	220 - 260	°C	
Mold Temperature	50.0 - 80.0	°C	
Injection Pressure	68.9 - 138	MPa	
Injection Rate	Fast		
Back Pressure	0.00 - 0.172	MPa	
Clamp Tonnage	2.8 - 5.5	kN/cm^2	
Cushion	< 3.18	mm	
Screw L/D Ratio	20.0:1.0		
Screw Compression Ratio	2.5:1.0		
Injection instructions			
Hold Pressure: 40 to 80% of Injection PressureScrew Speed: Moderate			
NOTE			
1.	24 hrs		
2.	标准 B (120°C/h), 压 力1 (10N)		

Recommended distributors for this material

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