

Lustran® SAN Sparkle

Styrene Acrylonitrile

Styrolution

Message:

Lustran SAN Sparkle resin is an injection molding grade of transparent SAN (styrene acrylonitrile) thermoplastic. The base resin used in the Lustran SAN Sparkle product is in chemical compliance with 21 CFR 181.32 (acrylonitrile copolymers and resins) for use in the manufacture of repeated-use houseware articles. Water-clear Lustran SAN Sparkle resin is the clearest, most colorless, and most transparent grade in the Lustran SAN product line. Lustran SAN Sparkle resin combines glass-like clarity, like an acrylic, with superior processing characteristics. It is available in water-clear (552190) tint. Lustran SAN Sparkle resin is used in applications where improved optical clarity is desired. Typical applications include housewares, cosmetic packaging, and personal care items. Lustran SAN Sparkle performs exceptionally well in applications that are subject to demanding environments. Finished products are resistant to heat deformation, scratching, and chemicals, such as foodstuffs, oils, greases, acids, alkalies, and petroleum products. Common solvents, such as MEK and THF, can be used for bonding Lustran SAN Sparkle. Parts molded out of Lustran SAN Sparkle resin also accept various methods of printing. As with any product, use of Lustran SAN Sparkle resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information	
UL YellowCard	E44741-235672
Features	Good dimensional stability
	Optical
	Excellent printability
	Workability, good
	Scratch resistance
	Good chemical resistance
	alkali resistance
	Fuel resistance
	acid resistance
	Oil resistance
	Grease resistance
	Definition, high
	Compliance of Food Exposure
Uses	Cosmetic Packaging
	Personal care
	Household goods
Agency Ratings	EC 1907/2006 (REACH)
	FDA 21 CFR 181.32
Appearance	Clear/transparent
Forms	Particle
Processing Method	Injection molding
Multi-Point Data	Specific Volume vs Temperature (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.07	g/cm ³	ASTM D792
Specific Volume	0.930	cm ³ /g	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.30 - 0.40	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	75		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3200	MPa	ASTM D638
Tensile Strength (Break)	62.0	MPa	ASTM D638
Tensile Elongation (Break)	2.1	%	ASTM D638
Flexural Modulus	3400	MPa	ASTM D790
Flexural Strength (Yield)	96.5	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)	21	J/m	ASTM D256
Unnotched Izod Impact (3.20 mm)	160	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, unannealed, 12.7mm	93.0	°C	ASTM D648
1.8 MPa, annealed, 12.7mm	102	°C	ASTM D648
Vicat Softening Temperature	108	°C	ASTM D1525 ²
CLTE - Flow	6.8E-5	cm/cm/°C	ASTM D696
RTI Elec (1.57 mm)	50.0	°C	UL 746
RTI Imp (1.57 mm)	50.0	°C	UL 746
RTI (1.57 mm)	50.0	°C	UL 746
Flammability	Nominal Value		Test Method
Flame Rating (1.57 mm, Clear)	HB		UL 94
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.570		ASTM D542
Transmittance (3200 µm)	89.0 - 90.0	%	ASTM D1003
Haze (3200 µm)	0.70	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature			
A	82.0 - 88.0	°C	
B	71.1 - 76.7	°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	165 - 180	°C
Middle Temperature	185 - 195	°C
Front Temperature	195 - 205	°C
Nozzle Temperature	195 - 205	°C
Processing (Melt) Temp	205 - 260	°C
Mold Temperature	40.0 - 80.0	°C
Injection Pressure	68.9 - 138	MPa
Injection Rate	Moderate-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 Pressure Screw Speed: Moderate

NOTE

1. 24 hrs
2. 标准 B (120°C/h)

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