

Lustran® Elite 1891

Acrylonitrile Butadiene Styrene
Styrolution

Message:

Lustran® Elite HH ABS 1891 resin is an injection molding grade of ABS (Acrylonitrile Butadiene Styrene) for high-heat applications in the automotive market. With a Vicat softening temperature of 243°F (117°C)*, Elite HH ABS 1891 provides high heat resistance, low gloss, toughness, and easy flow for processing molded-in color parts. The resin is available in natural and black colors only. Its consistent, clean, natural color makes it ideally suitable for use with color concentrates. Color concentrates for automotive color matches are available from several concentrate suppliers.

Lustran Elite HH ABS 1891 resin offers the right balance of properties for a variety of above-the-belt-line automotive applications. It is used for parts in the sun-loaded area where low-gloss, molded-in color is desired. Typical applications include A & B pillars, door panels, sail panels, consoles and console trim, cowl vents, and lamp housings. As with any product, use of Lustran Elite HH ABS 1891 resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information	
UL YellowCard	E44741-235658
Features	Gloss, low
	Good liquidity
	Good coloring
	Heat resistance, high
	Good toughness
Uses	Application in Automobile Field
	Car interior parts
Agency Ratings	EC 1907/2006 (REACH)
Appearance	Black
	Natural color
Forms	Particle
Processing Method	Injection molding
Multi-Point Data	Isochronous Stress vs. Strain (ISO 11403-1)
	Isothermal Stress vs. Strain (ISO 11403-1)
	Secant Modulus vs. Strain (ISO 11403-1)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm³	ASTM D792
Specific Volume	0.950	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	7.0	g/10 min	ASTM D1238
230°C/3.8 kg	2.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.70	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method

Tensile Strength			
Yield	42.1	MPa	ASTM D638
Yield	45.0	MPa	ISO 527-2
Tensile Elongation (Break)	35	%	ASTM D638
Flexural Modulus			
--	2210	MPa	ASTM D790
--	2270	MPa	ISO 178
Flexural Strength (Yield)	69.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C, 3.18 mm	190	J/m	ASTM D256
23°C, 6.35 mm	130	J/m	ASTM D256
23°C, 12.7 mm	110	J/m	ASTM D256
-40°C ¹	7.6	kJ/m ²	ISO 180/1A
23°C ²	17	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.18mm	101	°C	ASTM D648
1.8 MPa, unannealed, 3.18mm	86.1	°C	ASTM D648
1.8 MPa, unannealed, 6.35mm	97.2	°C	ASTM D648
1.8 MPa, unannealed, 12.7mm	100	°C	ASTM D648
Vicat Softening Temperature			
--	117	°C	ASTM D1525 ³
--	106	°C	ISO 306/B50
CLTE - Flow (-30 to 30°C)	7.9E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value	Unit	Test Method
Burning Rate ⁴	51	mm/min	SAE J1685
Flame Rating			UL 94
1.50 mm	HB		UL 94
3.00 mm	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	82.2 - 87.8	°C	
Drying Time	2.0	hr	
Suggested Max Moisture	< 0.10	%	
Suggested Shot Size	50 - 75	%	
Suggested Max Regrind	20	%	
Rear Temperature	238 - 254	°C	
Middle Temperature	243 - 260	°C	
Front Temperature	249 - 266	°C	
Nozzle Temperature	249 - 266	°C	
Processing (Melt) Temp	249 - 271	°C	
Mold Temperature	48.9 - 71.1	°C	

Injection Pressure	89.6 - 138	MPa
Injection Rate	Fast	
Holding Pressure	44.8 - 103	MPa
Back Pressure	0.172 - 0.689	MPa
Clamp Tonnage	2.8 - 5.5	kN/cm ²
Cushion	< 6.35	mm
Screw L/D Ratio	20.0:1.0	
Screw Compression Ratio	2.5:1.0	

Injection instructions

Hold Pressure: 50 to 75% of Injection Pressure
Screw Speed: Moderate
Drying at 160°-170°F for 4 hours is also adequate.

NOTE

1. 4x10 mm bar
2. 4x10 mm bar
3. 标准 B (120°C/h), 压力 1 (10N)
4. 2x100x355 mm

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