

# Lustran® Elite 1827

Acrylonitrile Butadiene Styrene

Styrolution

## Message:

Lustran® Elite HH ABS 1827 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 233°F (112°C), Elite HH 1827 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 1827 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 1827 resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
UL YellowCard	E44741-235657		
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		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm <sup>3</sup>	ASTM D792
Specific Volume	0.950	cm <sup>3</sup> /g	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	13	g/10 min	ASTM D1238
230°C/3.8 kg	4.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.70	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			
Yield	39.3	MPa	ASTM D638
Yield	42.0	MPa	ISO 527-2
Tensile Elongation (Break)	50	%	ASTM D638

Flexural Modulus			
--	2340	MPa	ASTM D790
--	2350	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	180	J/m	ASTM D256
23°C, 6.35 mm	130	J/m	ASTM D256
23°C, 12.7 mm	120	J/m	ASTM D256
-40°C <sup>1</sup>	7.7	kJ/m <sup>2</sup>	ISO 180/1A
23°C <sup>2</sup>	17	kJ/m <sup>2</sup>	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.18mm	95.0	°C	ASTM D648
1.8 MPa, unannealed, 3.18mm	82.8	°C	ASTM D648
1.8 MPa, unannealed, 6.35mm	92.8	°C	ASTM D648
1.8 MPa, unannealed, 12.7mm	96.1	°C	ASTM D648
Vicat Softening Temperature			
--	112	°C	ASTM D1525 <sup>3</sup>
--	101	°C	ISO 306/B50
CLTE - Flow (-30 to 30°C)	8.3E-5	cm/cm/°C	ASTM D696
RTI Elec (1.50 mm)	60.0	°C	UL 746
RTI Imp (1.50 mm)	60.0	°C	UL 746
RTI (1.50 mm)	60.0	°C	UL 746
Flammability	Nominal Value	Unit	Test Method
Burning Rate <sup>4</sup>	51	mm/min	SAE J1685
Flame Rating			UL 94
1.50 mm	HB		UL 94
3.20 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 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		

Back Pressure	0.172 - 0.689	MPa
Clamp Tonnage	2.8 - 5.5	kN/cm <sup>2</sup>
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 PressureScrew Speed: ModerateDrying at 4 hours at 160°-170°F 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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#### Recommended distributors for this material


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