

Lustran® ABS 1146

Acrylonitrile Butadiene Styrene

INEOS ABS (USA)

Message:

Lustran ABS 1146 resin is a very high-impact grade of ABS (acrylonitrile butadiene styrene). This automotive injection molding grade offers a good balance of physical properties with high ductility at low temperatures.

Lustran ABS 1146 resin is used for automotive applications where impact strength and a non-brittle type of failure mode are needed. Typical applications include interior trim parts, lower steering column shrouds, glove box doors, tail lamp housings, and instrument panel carriers. As with any product, use of Lustran ABS 1146 resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
UL YellowCard	E44741-235627		
Features	Impact resistance, high		
	Low temperature resistance		
	ductility		
Uses	Application in Automobile Field		
	Car interior parts		
	Car dashboard		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Opacity		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm ³	ASTM D792
Specific Volume	0.970	cm ³ /g	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
200°C/10.0 kg	4.0	g/10 min	ASTM D1238
230°C/3.8 kg	1.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.60 - 0.80	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	100		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2340	MPa	ASTM D638
Tensile Strength			
	Yield	39.3	MPa
	Yield	42.0	MPa
Flexural Modulus			

--	2410	MPa	ASTM D790
--	2390	MPa	ISO 178
Flexural Strength (Yield)	64.8	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C, 3.18 mm	510	J/m	ASTM D256
23°C ¹	38	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.18mm	92.2	°C	ASTM D648
0.45 MPa, annealed, 12.7mm	100	°C	ASTM D648
1.8 MPa, unannealed, 3.18mm	78.3	°C	ASTM D648
1.8 MPa, annealed, 12.7mm, molded	105	°C	ASTM D648
1.8 MPa, annealed, 12.7mm	95.0	°C	ASTM D648
Vicat Softening Temperature			
--	106	°C	ASTM D1525 ²
--	96.0	°C	ISO 306/B50
CLTE - Flow (-30 to 30°C)	9.2E-5	cm/cm/°C	ASTM D696
RTI Elec (1.57 mm)	60.0	°C	UL 746
RTI Imp (1.57 mm)	60.0	°C	UL 746
RTI (1.57 mm)	60.0	°C	UL 746
Flammability	Nominal Value	Unit	Test Method
Burning Rate ³	25	mm/min	SAE J1685
Flame Rating			UL 94
1.57 mm	HB		UL 94
3.18 mm	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature			
A	82.2 - 87.8	°C	
B	71.1 - 76.7	°C	
Drying Time			
A	2.0	hr	
B	4.0	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 - 271	°C	
Processing (Melt) Temp	249 - 271	°C	
Mold Temperature	48.9 - 71.1	°C	

Injection Rate	Fast	
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 PressureScrew Speed: Moderate

NOTE

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

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