

Lustran® ABS 308

Acrylonitrile Butadiene Styrene

INEOS ABS (USA)

Message:

Lustran ABS 308 resin is a low gloss, easy-flowing grade of ABS (acrylonitrile butadiene styrene). This injection molding grade offers a good balance of rigidity, impact strength, and abuse resistance. The resin is available in natural (000000).

Lustran ABS 308 resin is designed for applications requiring a good balance of physical properties and a low-gloss appearance. Typical applications include components of intravenous (IV) systems, diagnostic test kits, and surgical instruments. As with any product, use of Lustran ABS 308 resin in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

Lustran ABS 308 resin is designated as "medical-grade" and has met the requirements of the FDA-Modified ISO 10993, Part I "Biological Evaluation of Medical Devices" tests with human tissue contact time of 30 days or less. Only medical-grade resins may be considered as candidates for applications requiring biocompatibility.

Regrind must not be used in medical applications requiring biocompatibility.

General Information			
Features	Radiation disinfection		
	Gloss, low		
	Ethylene oxide disinfection		
	Impact resistance, good		
	Good liquidity		
	Biocompatibility		
	Medium hardness		
Uses	Surgical instruments		
	Medical/nursing supplies		
Agency Ratings	EC 1907/2006 (REACH)		
	ISO 10993-Part I		
Appearance	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm ³	ASTM D792
Specific Volume	0.950	cm ³ /g	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	21	g/10 min	ASTM D1238
230°C/2.16 kg	7.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.70	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	105		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2210	MPa	ASTM D638

Tensile Strength (Yield)	36.2	MPa	ASTM D638
Flexural Modulus	2450	MPa	ASTM D790
Flexural Strength (Yield)	72.4	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	170	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.18mm	88.9	°C	ASTM D648
0.45 MPa, unannealed, 12.7mm	92.2	°C	ASTM D648
0.45 MPa, annealed, 3.18mm	100	°C	ASTM D648
0.45 MPa, annealed, 12.7mm	102	°C	ASTM D648
1.8 MPa, unannealed, 3.18mm	75.6	°C	ASTM D648
1.8 MPa, unannealed, 12.7mm	87.2	°C	ASTM D648
1.8 MPa, annealed, 3.18mm	95.0	°C	ASTM D648
1.8 MPa, annealed, 12.7mm	100	°C	ASTM D648
Vicat Softening Temperature	106	°C	ASTM D1525 ¹
CLTE - Flow (-30 to 30°C)	9.0E-5	cm/cm/°C	ASTM D696
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	%	
Rear Temperature	235 - 249	°C	
Middle Temperature	241 - 254	°C	
Front Temperature	246 - 260	°C	
Nozzle Temperature	246 - 260	°C	
Processing (Melt) Temp	246 - 266	°C	
Mold Temperature	43.3 - 65.6	°C	
Injection Pressure	68.9 - 110	MPa	
Injection Rate	Fast		
Back Pressure	0.345 - 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			

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