Lustran® ABS 248FC

Acrylonitrile Butadiene Styrene

Styrolution

Message:

Lustran ABS 248FC resin is a high-gloss, medium-impact grade of ABS (acrylonitrile butadiene styrene). This injection molding grade offers a good balance of physical properties and has been designed to be compliant with both medical and food contact regulations.
Lustran ABS 248FC resin is used in applications requiring rigidity and intermediate abuse resistance. As with any product, use of Lustran ABS 248FC resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.
Lustran ABS 248FC 000000 (natural) complies with FDA regulation 21 CFR 181.32 for repeated-use food-contact applications. It is also compliant with EU Directive 2002/72/EC and its amendments (2004/1/EC, 2004/19/EC, 2005/79/EC, 2008/39/EC) relating to plastic materials and articles intended to come into contact with foodstuffs.
Lustran ABS 248FC resin is designated as "medical-grade" and has met the requirements of the USP Class VI and 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 Highlight Ethylene oxide disinfection Biocompatibility Compliance of Food Exposure Medium impact resistance		
Uses	Non-specific food applications Medical/nursing supplies		
Agency Ratings	EC 1907/2006 (REACH) EU 2004/19/EC FDA 21 CFR 181.32 ISO 10993-Part I USP Class VI European 2002/72/EC		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.06	g/cm³	ASTM D792
Specific Volume	0.940	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	5.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.60	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	112		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**

Tensile Modulus	2620	MPa	ASTM D638
Tensile Strength (Yield)	46.9	MPa	ASTM D638
Flexural Modulus	2690	MPa	ASTM D790
Flexural Strength (Yield)	73.8	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-40°C, 3.18 mm	48	J/m	ASTM D256
23°C, 3.18 mm	220	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 12.7mm	93.3	°C	ASTM D648
0.45 MPa, annealed, 12.7mm	100	°C	ASTM D648
1.8 MPa, unannealed, 12.7mm	86.1	°C	ASTM D648
1.8 MPa, annealed, 12.7mm, molded	102	°C	ASTM D648
1.8 MPa, annealed, 12.7mm	95.6	°C	ASTM D648
Vicat Softening Temperature	80.0	°C	ASTM D1525 [1]
CLTE - Flow (-30 to 30°C)	8.1E-5	cm/cm/°C	ASTM D696
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	%	
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	0.00 - 0.172	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: moderateDrying at 160°-170°F for 4 hours is also adequate.

NOTE	
1.	标准 B (120°C/h)

Recommended distributors for this material

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