Lustran® ABS 448

Acrylonitrile Butadiene Styrene

INEOS ABS (USA)

Message:

Lustran ABS 448 resin is a high-gloss, high-impact injection molding grade of ABS (acrylonitrile butadiene styrene). In addition to a good balance of physical properties, it provides heat stability and very good moldability.
Lustran ABS 448 is tougher than Lustran ABS 248 resin. It is used in home appliances for floor care housings, vacuum cleaner housings, and kitchen electrical appliance housings; lawn and garden equipment; and power tool housings. As with any product, use of Lustran ABS 448 resin in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

General Information	
UL YellowCard	E44741-235637
Features	Good dimensional stability Highlight Impact resistance, high Good formability
Uses	Lawn and Garden Equipment Electrical housing Electrical appliances Shell
Agency Ratings	EC 1907/2006 (REACH)
Appearance	Opacity
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	12	g/10 min	ASTM D1238
230°C/3.8 kg	4.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.60	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	109		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2550	MPa	ASTM D638

Tensile Strength (Yield)	42.1	MPa	ASTM D638
Flexural Modulus	2620	MPa	ASTM D790
Flexural Strength (Yield)	72.4	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-40°C, 3.18 mm	64	J/m	ASTM D256
23°C, 3.18 mm	330	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 12.7mm	91.7	°C	ASTM D648
0.45 MPa, annealed, 12.7mm	99.4	°C	ASTM D648
1.8 MPa, unannealed, 3.18mm	81.1	°C	ASTM D648
1.8 MPa, unannealed, 12.7mm	85.0	°C	ASTM D648
1.8 MPa, annealed, 12.7mm, molded	101	°C	ASTM D648
1.8 MPa, annealed, 12.7mm	94.4	°C	ASTM D648
Vicat Softening Temperature	106	°C	ASTM D1525 [1]
CLTE - Flow	9.0E-5	cm/cm/°C	ASTM D696
RTI Elec (1.47 mm)	80.0	°C	UL 746
RTI Imp (1.47 mm)	80.0	°C	UL 746
RTI (1.47 mm)	80.0	°C	UL 746
Flammability	**Nominal Value**		**Test Method**
Flame Rating			UL 94
1.50 mm	HB		UL 94
3.00 mm	HB		UL 94
5.99 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 - 70	%	
Suggested Max Regrind	20	%	
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: Moderate

NOTE	
1.	标准 B (120°C/h)

Recommended distributors for this material

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