Lustran® ABS 648

Acrylonitrile Butadiene Styrene

INEOS ABS (USA)

Message:

Lustran ABS 648 resin is a general-purpose injection molding grade of ABS (acrylonitrile butadiene styrene). It is a high-impact, high-gloss resin with a good balance of physical properties and easy flow to enhance moldability.
Lustran ABS 648 is used in applications requiring extra toughness. It is well-suited for complex part designs with difficult-to-fill molds. Lustran ABS 648 is used in home appliances for floor care housings, vacuum cleaner housings, and kitchen electrical appliance housings; lawn and garden applications; and electric power tool housings. It is also used in irrigation parts and electrical utility boxes. Per the restrictions of the Consumer Product Safety Improvement Act (CPSIA) that went into effect on February 10, 2009, Lustran ABS 648 can not be used to manufacture children's toys or child care articles. As with any product, use of Lustran ABS 648 resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information	
UL YellowCard	E44741-235648
Features	Highlight
	Impact resistance, high
	Good toughness
	General
Uses	Lawn and Garden Equipment
	Electrical components
	Electrical housing
	Electrical appliances
	Irrigation application
	General
	Shell
Agency Ratings	EC 1907/2006 (REACH)
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	1.04	g/cm³	ASTM D792
Specific Volume	0.960	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	8.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.60	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	105		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**

Tensile Modulus	2340	MPa	ASTM D638
Tensile Strength (Yield)	40.7	MPa	ASTM D638
Flexural Modulus	2480	MPa	ASTM D790
Flexural Strength (Yield)	68.9	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-40°C, 3.18 mm	80	J/m	ASTM D256
23°C, 3.18 mm	360	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 12.7mm	87.8	°C	ASTM D648
0.45 MPa, annealed, 12.7mm	95.6	°C	ASTM D648
1.8 MPa, unannealed, 12.7mm	82.2	°C	ASTM D648
1.8 MPa, annealed, 12.7mm, molded	97.2	°C	ASTM D648
1.8 MPa, annealed, 12.7mm	90.6	°C	ASTM D648
Vicat Softening Temperature	104	°C	ASTM D1525 [1]
CLTE - Flow	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**		**Test Method**
Flame Rating			UL 94
1.50 mm	HB		UL 94
3.00 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 - 252	°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

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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