

# Lustran® ABS 488

Acrylonitrile Butadiene Styrene

INEOS ABS (USA)

## Message:

Lustran ABS 488 resin is a general-purpose injection molding grade of ABS (acrylonitrile butadiene styrene). It is a medium-to-high impact ABS with very high gloss. In addition to a good balance of physical properties, it provides very good moldability and improved surface aesthetics versus Lustran ABS 448.

Lustran ABS 488 is used in applications requiring greater toughness than Lustran ABS 248 and better aesthetics than Lustran ABS 448. It is used in home appliances (vacuum cleaners); musical equipment; and office products requiring high gloss, such as keyboard keys and pen barrels. It is also used in swimming pool filter pump housings. Per the restrictions of the Consumer Product Safety Improvement Act (CPSIA) that went into effect on February 10, 2009, Lustran ABS 488 can not be used to manufacture children's toys or child care articles. As with any product, use of Lustran ABS 488 resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information	
UL YellowCard	E44741-235640
Features	Highlight
	Good formability
	Good toughness
	General
	Excellent appearance
	Medium impact resistance
Uses	Electrical appliances
	Musical Instrument
	Business equipment
	Shell
	Stationery
Agency Ratings	EC 1907/2006 (REACH)
Forms	Particle
Processing Method	Injection molding
Multi-Point Data	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/cm <sup>3</sup>	ASTM D792
Specific Volume	0.950	cm <sup>3</sup> /g	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	6.0	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	2520	MPa	ASTM D638
Tensile Strength (Yield)	42.1	MPa	ASTM D638
Flexural Modulus	2550	MPa	ASTM D790
Flexural Strength (Yield)	70.3	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°C, 3.18 mm	59	J/m	ASTM D256
23°C, 3.18 mm	290	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	95.0	°C	ASTM D648
1.8 MPa, not annealed	84.4	°C	ASTM D648
Vicat Softening Temperature	101	°C	ASTM D1525 <sup>1</sup>
CLTE - Flow	9.0E-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 (0.157 mm)	60.0	°C	UL 746
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
1.59 mm	HB		UL 94
3.30 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	235 - 249	°C	
Middle Temperature	241 - 254	°C	
Front Temperature	246 - 260	°C	
Nozzle Temperature	246 - 260	°C	
Processing (Melt) Temp	246 - 260	°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 <sup>2</sup>	
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)

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