

Lustran® ABS 248

Acrylonitrile Butadiene Styrene
INEOS ABS (USA)

Technical Data

Product Description

Lustran® ABS 248 resin is a high-gloss, medium-impact grade of ABS (Acrylonitrile Butadiene Styrene). This general-purpose injection molding grade offers a good balance of physical properties. It also complies with FDA regulation 21 CFR 181.32 for repeated-use food contact applications in certain colors. The resin is available in natural, black and custom colors.

Lustran ABS 248 is used in applications requiring rigidity and intermediate abuse resistance. Typical applications include housings for small appliances and toys. As with any product, use of Lustran ABS 248 resin in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (English)
UL Yellow Card ²	• E44741-235631
Search for UL Yellow Card	• INEOS ABS (USA) • Lustran® ABS
Availability	• North America
Features	• Food Contact Acceptable • General Purpose • High Gloss • High Rigidity • Medium Impact Resistance
Uses	• Appliances • General Purpose • Housings • Toys • White Goods & Small Appliances
Agency Ratings	• EC 1907/2006 (REACH) • FDA 21 CFR 181.32
Appearance	• Black • Colors Available • Natural Color
Forms	• Pellets
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 (English)	Nominal Value (SI)	Test Method
Specific Gravity	1.06	1.06 g/cm ³	ASTM D792
Specific Volume	26.0 in ³ /lb	0.940 cm ³ /g	
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	13 g/10 min	13 g/10 min	
230°C/3.8 kg	5.0 g/10 min	5.0 g/10 min	
Molding Shrinkage - Flow	0.0040 to 0.0060 in/in	0.40 to 0.60 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	380000 psi	2620 MPa	ASTM D638
Tensile Strength (Yield)	6800 psi	46.9 MPa	ASTM D638
Flexural Modulus	390000 psi	2690 MPa	ASTM D790
Flexural Strength (Yield)	10700 psi	73.8 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
-40°F (-40°C), 0.125 in (3.18 mm)	0.90 ft·lb/in	48 J/m	
73°F (23°C), 0.125 in (3.18 mm)	4.2 ft·lb/in	220 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	112	112	ASTM D785

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.500 in (12.7 mm)	200 °F	93.3 °C	
66 psi (0.45 MPa), Annealed, 0.500 in (12.7 mm)	212 °F	100 °C	
264 psi (1.8 MPa), Unannealed, 0.500 in (12.7 mm)	187 °F	86.1 °C	
264 psi (1.8 MPa), Annealed, 0.500 in (12.7 mm)	204 °F	95.6 °C	
264 psi (1.8 MPa), Annealed, 0.500 in (12.7 mm) ⁴	215 °F	102 °C	
Vicat Softening Temperature	225 °F	107 °C	ASTM D1525 ⁵
CLTE - Flow	0.000045 in/in/°F	0.000081 cm/cm/°C	ASTM D696
RTI Elec (0.0580 in (1.47 mm))	176 °F	80.0 °C	UL 746
RTI Imp (0.0580 in (1.47 mm))	176 °F	80.0 °C	UL 746
RTI Str (0.0580 in (1.47 mm))	176 °F	80.0 °C	UL 746

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.0590 in (1.50 mm)	HB	HB	
0.118 in (3.00 mm)	HB	HB	
0.236 in (5.99 mm)	HB	HB	

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature - Desiccant Dryer	160 to 190 °F	71.1 to 87.8 °C
Drying Time - Desiccant Dryer	2.0 to 4.0 hr	2.0 to 4.0 hr
Dew Point - Desiccant Dryer	-20.0 °F	-28.9 °C
Suggested Max Moisture	< 0.10 %	< 0.10 %
Suggested Shot Size	50 to 75 %	50 to 75 %
Suggested Max Regrind	20 %	20 %
Rear Temperature	455 to 480 °F	235 to 249 °C
Middle Temperature	465 to 490 °F	241 to 254 °C
Front Temperature	475 to 500 °F	246 to 260 °C
Nozzle Temperature	475 to 500 °F	246 to 260 °C
Processing (Melt) Temp	475 to 510 °F	246 to 266 °C
Mold Temperature	110 to 150 °F	43.3 to 65.6 °C
Injection Rate	Fast	Fast
Back Pressure	0.00 to 25.0 psi	0.00 to 0.172 MPa
Clamp Tonnage	2.0 to 4.0 tons/in ²	2.8 to 5.5 kN/cm ²
Cushion	< 0.250 in	< 6.35 mm
Screw L/D Ratio	20.0:1.0	20.0:1.0
Screw Compression Ratio	2.5:1.0	2.5:1.0

Injection Notes

Hold Pressure: 50 to 70% of Injection Pressure
Screw Speed: Moderate

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ Compression Molded

⁵ Rate B (120°C/h)

Where to Buy

Supplier

INEOS ABS (USA)

Addyston, OH USA

Telephone: 877-233-9227

Web: <http://www.ineos.com/businesses/INEOS-ABS/>

Distributor

Chase Plastic Services, Inc.

Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here:

<http://www.chaseplastics.com/contact/locations>

Telephone: 800-232-4273

Web: <http://www.chaseplastics.com/>

Availability: North America

Polymer Z

Telephone: 248-705-5322

Availability: North America

PolyOne Distribution

PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.

Telephone: 800-894-4266

Web: <http://polyonedistribution.com/>

Availability: Global

Resin Resource, Inc.

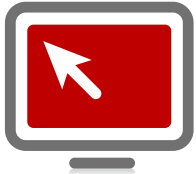
Telephone: 877-652-3431

Web: <http://www.resinresourceinc.com/>

Availability: North America



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– Birgit Elvardt Bader, Production Manager, Micotron

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– Kevin Chase, Owner & President, Chase Plastics



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