

## Ineos ABS Lustran® ABS 248FC Medical & Food Contact Grade

Category : Polymer , Thermoplastic , ABS Polymer , Acrylonitrile Butadiene Styrene (ABS), Molded

### Material Notes:

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. Regrind must not be used in medical applications requiring biocompatibility. Lustran® ABS 248FC can be made available (upon request) in colors that are compliant with both biocompatibility and food contact requirements.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ineos-ABS-Lustran-ABS-248FC-Medical-Food-Contact-Grade.php](http://www.lookpolymers.com/polymer_ineos-ABS-Lustran-ABS-248FC-Medical-Food-Contact-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.06 g/cc	0.0383 lb/in <sup>3</sup>	ASTM-D792
Linear Mold Shrinkage	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	ASTM-D955
Melt Flow	5.0 g/10 min @Load 3.80 kg, Temperature 230 °C	5.0 g/10 min @Load 8.38 lb, Temperature 446 °F	ASTM-D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	112	112	ASTM-D785
Tensile Strength, Yield	47.0 MPa	6820 psi	ASTM-D638
Tensile Modulus	2.60 GPa	377 ksi	ASTM-D638
Flexural Yield Strength	74.0 MPa	10700 psi	ASTM-D790
Flexural Modulus	2.70 GPa	392 ksi	ASTM-D790
Izod Impact, Notched	0.480 J/cm @Thickness 3.20 mm, Temperature -40.0 °C	0.899 ft-lb/in @Thickness 0.126 in, Temperature -40.0 °F	ASTM-D256
	2.24 J/cm @Thickness 3.20 mm, Temperature 23.0 °C	4.20 ft-lb/in @Thickness 0.126 in, Temperature 73.4 °F	ASTM-D256

Mechanical Properties	Metric	English	Comments
CTE, linear	81.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	45.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	ASTM-D696
Deflection Temperature at 0.46 MPa (66 psi)	93.0 $\text{Å}^\circ\text{C}$	199 $\text{Å}^\circ\text{F}$	Unannealed; ASTM-D648
	@Thickness 12.7 mm	@Thickness 0.500 in	
	100 $\text{Å}^\circ\text{C}$	212 $\text{Å}^\circ\text{F}$	Annealed; ASTM-D648
	@Thickness 12.7 mm	@Thickness 0.500 in	
Deflection Temperature at 1.8 MPa (264 psi)	86.0 $\text{Å}^\circ\text{C}$	187 $\text{Å}^\circ\text{F}$	Unannealed; ASTM-D648
	@Thickness 12.7 mm	@Thickness 0.500 in	
	96.0 $\text{Å}^\circ\text{C}$	205 $\text{Å}^\circ\text{F}$	Annealed; ASTM-D648
	@Thickness 12.7 mm	@Thickness 0.500 in	
	102 $\text{Å}^\circ\text{C}$	216 $\text{Å}^\circ\text{F}$	Annealed, Compression Molded; ASTM-D648
	@Thickness 12.7 mm	@Thickness 0.500 in	
Vicat Softening Point	80.0 $\text{Å}^\circ\text{C}$	176 $\text{Å}^\circ\text{F}$	Rate B; ASTM-D1525

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	235 - 250 $\text{Å}^\circ\text{C}$	455 - 482 $\text{Å}^\circ\text{F}$	Injection Molding
Middle Barrel Temperature	240 - 255 $\text{Å}^\circ\text{C}$	464 - 491 $\text{Å}^\circ\text{F}$	Injection Molding
Front Barrel Temperature	245 - 260 $\text{Å}^\circ\text{C}$	473 - 500 $\text{Å}^\circ\text{F}$	Injection Molding
Nozzle Temperature	245 - 260 $\text{Å}^\circ\text{C}$	473 - 500 $\text{Å}^\circ\text{F}$	Injection Molding
Melt Temperature	245 - 265 $\text{Å}^\circ\text{C}$	473 - 509 $\text{Å}^\circ\text{F}$	Injection Molding
Mold Temperature	45.0 - 65.0 $\text{Å}^\circ\text{C}$	113 - 149 $\text{Å}^\circ\text{F}$	Injection Molding
Drying Temperature	71.0 - 77.0 $\text{Å}^\circ\text{C}$	160 - 171 $\text{Å}^\circ\text{F}$	
	@Time 14400 sec	@Time 4.00 hour	
	82.0 - 88.0 $\text{Å}^\circ\text{C}$	180 - 190 $\text{Å}^\circ\text{F}$	
	@Time 7200 sec	@Time 2.00 hour	
Moisture Content	$\leq 0.10\%$	$\leq 0.10\%$	
Dew Point	$\leq -29.0\text{ Å}^\circ\text{C}$	$\leq -20.2\text{ Å}^\circ\text{F}$	inlet air
Injection Pressure	68.9 - 110 MPa	10000 - 16000 psi	Injection Molding
Back Pressure	0.000 - 0.172 MPa	0.000 - 25.0 psi	Injection Molding

Clamp Pressure Processing Properties	30.8 - 61.6 MPa Metric	4470 - 8930 psi English	Injection Molding Comments
Cushion	<= 0.635 cm	<= 0.250 in	Injection Molding

Descriptive Properties	Value	Comments
Hold Pressure	50-75% of Injection Pressure, Injection Molding	
Injection Speed	High	Injection Molding
Screw Compression Ratio	2.5:1	Injection Molding
Screw Length-to-Diameter Ratio	>= 20:1	Injection Molding
Screw Speed	Moderate, Injection Molding	
Shot Weight-to-Machine Capacity Ratio	0.5-0.75	Injection Molding

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China