

INEOS ABS

Lustran ABS 248

Injection molding grade of ABS (acrylonitrile butadiene styrene). This high-gloss, medium-impact 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. Typical applications include housings for small appliances and toys.

Property	Test Condition	Unit	Standard	Value	
<small>colors: all</small>					
Rheological properties					
Mold shrinkage, flow/cross to flow	Value range based on general practical experience	in/in	ASTM D 955	0.004 - 0.006	
Melt flow rate	230 °C; 3.8 kg	g/(10 min)	ASTM D 1238	5.0	
Mechanical properties (23 °C/50 % r. h.)					
Tensile modulus	73 °F, 0.2 in/min	lb/in ²	ASTM D 638	380000	
Tensile stress at yield	73 °F, 0.2 in/min	lb/in ²	ASTM D 638	6800	
Izod notched impact strength	73 °F, 0.125 in	ft-lb/in	ASTM D 256	4.2	
Izod notched impact strength	-40 °F; 0.125 in	ft-lb/in	ASTM D 256	0.9	
Flexural modulus		lb/in ²	ASTM D 790	390000	
Flexural stress at yield		lb/in ²	ASTM D 790	10700	
Rockwell hardness		R Scale	ASTM D 785	112	
Thermal properties					
Deflection temperature under load, Annealed	66 psi; 0.500 in	°F	ASTM D 648	212	
Deflection temperature under load, Annealed	264 psi; 0.500 in	°F	ASTM D 648	204	
Deflection temperature under load, Annealed/Compression Molded	264 psi; 0.500 in	°F	ASTM D 648	215	
Deflection temperature under load, Unannealed	66 psi; 0.500 in	°F	ASTM D 648	200	
Deflection temperature under load, Unannealed	264 psi; 0.500 in	°F	ASTM D 648	187	
Vicat softening temperature		°F	ASTM D 1525	225	
Coefficient of linear thermal expansion, flow/cross-flow		in/in/°F	ASTM D 696	4.5E-05	
UL94 Flame Class [UL listed]	Thickness tested: 1.47 mm	Class	UL 94	HB	all
UL94 Flame Class [UL listed]	Thickness tested: 3.05 mm	Class	UL 94	HB	all
UL94 Flame Class [UL listed]	Thickness tested: 6.10 mm	Class	UL 94	HB	all
Relative temperature index, mechanical with impact	Thickness tested: 1.57 mm	°C	UL 746B	80	
Relative temperature index, mechanical without impact	Thickness tested: 1.57 mm	°C	UL 746B	80	
Relative temperature index, electrical	Thickness tested: 1.57 mm	°C	UL 746B	80	
Other properties (23 °C)					
Density		lb/in ³	ASTM D 792	0.038	
Specific volume		in ³ /lb	ASTM D 792	26.1	
Specific gravity		-	ASTM D 792	1.06	