

Technical Data Sheet

**Diamond Abs 1000**

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

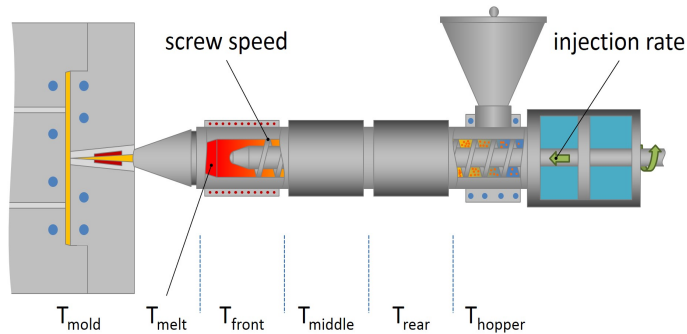
General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• High Gloss		
UL File NumberUSA	• E150937		
Appearance	• Colors Available		
Forms	• Pellets		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.06	1.06 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.5 g/10 min	3.5 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ¹ (Yield)	7500 psi	51.7 MPa	ASTM D638
Flexural Modulus - Tangent ²	368000 psi	2540 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 in (3.18 mm)	1.5 ft-lb/in	80 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	115	115	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	172 °F	78.0 °C	ASTM D1525
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm)	199 °F	92.8 °C	
Vicat Softening Temperature	219 °F	104 °C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating (0.06 in (1.6 mm))	HB	HB	UL 94

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.10 %	0.10 %
Rear Temperature	374 to 482 °F	190 to 250 °C
Middle Temperature	374 to 482 °F	190 to 250 °C
Front Temperature	374 to 482 °F	190 to 250 °C
Mold Temperature	104 to 176 °F	40 to 80 °C
Injection Pressure	7000 to 11000 psi	48.3 to 75.8 MPa

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Notes

¹ 2.0 in/min (51 mm/min)

² 0.050 in/min (1.3 mm/min)

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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