

Technical Data Sheet

Diamond Abs 1000

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

General		
Features	• High Gloss	
Agency Ratings	• EC 1907/2006 (REACH)	• EU 2002/96/EC (WEEE)
RoHS Compliance	• RoHS Compliant	
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 D648
264 Psi (1.8 Mpa), Annealed, 0.125 In (3.18 Mm)	199 °F	92.8 °C	
Vicat Softening Temperature	219 °F	104 °C	ASTM D1525
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

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.