

Technical Data Sheet

**Diamond Abs 9501N**

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Ultra High Impact Resistance • Ultra High Stiffness		
Appearance	• Colors Available		
Forms	• Pellets		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.04	1.04 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ¹			ASTM D1238
220°C/10.0 kg	13 g/10 min	13 g/10 min	
230°C/3.8 kg	2.8 g/10 min	2.8 g/10 min	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ²			ASTM D638
Yield, 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	6200 psi	42.7 MPa	
Flexural Modulus - Tangent ³			ASTM D790
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	298000 psi	2050 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	9.0 ft·lb/in	480 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	100	100	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm), Injection Molded	176 °F	80.0 °C	
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm), Injection Molded	199 °F	92.8 °C	
Vicat Softening Temperature	221 °F	105 °C	ASTM D1525 ⁴
Thermal Index - 1.5mm	140 °F	140 °F	UL 746B
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 Rate	Moderate-Fast	Moderate-Fast

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Notes

¹ Procedure A

² 2.0 in/min (51 mm/min)

³ 0.050 in/min (1.3 mm/min)

⁴ Loading 1 (10 N)

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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