

Technical Data Sheet

Diamond Abs 9501N

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

General			
Features	• Ultra High Impact Resistance	• Ultra High Stiffness	
Agency Ratings	• EC 1907/2006 (REACH)	• EU 2002/96/EC (WEEE)	
RoHS Compliance	• RoHS Compliant		
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

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.