

Technical Data Sheet

# Diamond Abs TR-5000

Acrylonitrile Butadiene Styrene  
 LyondellBasell Industries  
 Engineering Plastics

General			
Agency Ratings	• EC 1907/2006 (REACH)	• EU 2002/96/EC (WEEE)	• FDA 21 CFR 181.32
RoHS Compliance	• RoHS Compliant		
UL File NumberUsa	• E150937		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.10	1.10 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) <sup>1</sup> (200°c/5.0 Kg)	2.1 g/10 min	2.1 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength <sup>2</sup> (Yield)	7090 psi	48.8 MPa	ASTM D638
Flexural Modulus <sup>3</sup>	334000 psi	2300 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (0.125 In (3.18 Mm))	2.0 ft-lb/in	110 J/m	ASTM D256A
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-scale)	112	112	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)	163 °F	72.8 °C	ASTM D648
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating	HB	HB	UL 94
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Light Transmittance (118.1 Mil (3000 µm))	90.0 %	90.0 %	ASTM D1003
Haze (118.1 Mil (3000 µm))	3.50 %	3.50 %	ASTM D1003

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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**

- <sup>1</sup> Procedure A
- <sup>2</sup> 2.0 in/min (51 mm/min)
- <sup>3</sup> Method I (3 point load), 0.050 in/min (1.3 mm/min)

**Notes**

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