

Technical Data Sheet

**Diamond Pc 2003I.9001 White**

Polycarbonate
LyondellBasell Industries
Engineering Plastics

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Impact Modifier
Features	• Impact Modified
Forms	• Pellets

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity ¹	1.20	1.20 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ² (300°C/1.2 kg)	13 g/10 min	13 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ³ (Break)	8270 psi	57.0 MPa	ASTM D638
Tensile Elongation ³ (Break)	110 %	110 %	ASTM D638
Flexural Modulus - Chord ⁴ (0.125 in (3.18 mm))	344000 psi	2370 MPa	ASTM D790
Flexural Strength ⁵ 0.125 in (3.18 mm), 1.97 in (50.0 mm) Span	13200 psi	91.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength	23 ft·lb/in ²	48 kJ/m ²	ISO 179
Notched Izod Impact -40°F (-40°C), 0.125 in (3.18 mm)	9.7 ft·lb/in	520 J/m	ASTM D256A
Unnotched Izod Impact (Area)	11.9 ft·lb/in ²	25.0 kJ/m ²	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm)	270 °F	132 °C	ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	241 °F	116 °C	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	250 °F	121 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Rear Temperature	500 to 590 °F	260 to 310 °C
Middle Temperature	500 to 590 °F	260 to 310 °C
Front Temperature	500 to 590 °F	260 to 310 °C
Nozzle Temperature	500 to 590 °F	260 to 310 °C
Injection Rate	Moderate	Moderate
Back Pressure	50.0 to 100 psi	0.345 to 0.689 MPa
Screw Speed	40 to 50 rpm	40 to 50 rpm

Injection Notes

Barrel Temps Progressive Increase from Rear to Front.

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Notes

¹ Method A

² Procedure A

³ 0.20 in/min (5.0 mm/min)

⁴ 0.051 in/min (1.3 mm/min)

⁵ 0.50 in/min (13 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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