

Technical Data Sheet

**Diamond Pc 1008NCD**

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	1.18	1.18 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ¹ (300°C/1.2 kg)	8.0 g/10 min	8.0 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Yield)	9600 psi	66.2 MPa	ASTM D638
Flexural Modulus ³ (0.125 in (3.18 mm))	320000 psi	2210 MPa	ASTM D790
Flexural Strength ³ (0.125 in (3.18 mm))	12300 psi	84.8 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm)	15 ft·lb/in	770 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm)	280 °F	138 °C	
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	259 °F	126 °C	
Vicat Softening Temperature	306 °F	152 °C	ASTM D1525 ⁴

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	250 °F	121 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Drying Time, Maximum	4.0 hr	4.0 hr
Rear Temperature	525 to 580 °F	274 to 304 °C
Middle Temperature	545 to 600 °F	285 to 316 °C
Front Temperature	545 to 620 °F	285 to 327 °C
Nozzle Temperature	545 to 610 °F	285 to 321 °C
Processing (Melt) Temp	545 to 620 °F	285 to 327 °C
Mold Temperature	180 to 240 °F	82 to 116 °C

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Notes

- ¹ Procedure A
² Type I, 2.0 in/min (51 mm/min)
³ 0.050 in/min (1.3 mm/min)
⁴ Rate B (120°C/h), 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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