

## Technical Data Sheet

**Diamond PC 1029 CLEAR**

Polycarbonate

**Product Description**

*Diamond* PC 1029 CLEAR is a Polycarbonate material. Features include: Food Contact Acceptable.

<b>Attribute</b>	Food Contact Acceptable
<b>Appearance</b>	Natural Color

<b>Typical Properties</b>	<b>Nominal Value</b>	<b>Units</b>	<b>Test Method</b>
<b>Physical</b>			
Melt Flow Rate, (300 °C/1.2 kg, Procedure A)	20	g/10 min	ASTM D1238
Density - Specific Gravity	1.2	g/cm <sup>3</sup>	ASTM D792
<b>Mechanical</b>			
Tensile Strength at Yield, (51 mm/min)	62.1	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, Procedure B, Method I (3 point load))	2380	MPa	ASTM D790
Flexural Strength, (1.3 mm/min, Method I (3 point load), Procedure B)	89.6	MPa	ASTM D790
<b>Impact</b>			
Notched Izod Impact, (3.18 mm, Method A)	640	J/m	ASTM D256
<b>Hardness</b>			
Rockwell Hardness, (R-Scale)	120		ASTM D785
<b>Thermal</b>			
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	127	°C	ASTM D648
<b>Additional Information</b>			
Water Absorption at 24 hrs, (23 °C)	0.15	%	ASTM D570
<b>UL Information</b>			
Flame Rating, (1.5 mm)	V-2		UL 94
UL File Number	E150937		

<b>Injection Parameters</b>	<b>Nominal Value</b>	<b>Units</b>
Drying Time, (Desiccant Dryer)	3.0 to 4.0	hr
Drying Temperature	120	°C
Suggested Max Moisture	0.02	%
Nozzle Temperature	270 to 300	°C
Screw Speed	40 to 70	rpm
Processing (Melt) Temp	280 to 305	°C
Front Temperature	280 to 305	°C
Suggested Shot Size	40 to 60	%
Middle Temperature	270 to 295	°C
Vent Depth	0.025 to 0.076	mm
Rear Temperature	260 to 280	°C
Back Pressure	0.300 to 0.700	MPa
Mold Temperature	80 to 100	°C