

Technical Data Sheet

Diamond PC 1029 CLEAR

Polycarbonate

Product Description

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

Attribute	Food Contact Acceptable
Appearance	Natural Color

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (300 °C/1.2 kg, Procedure A)	20	g/10 min	ASTM D1238
Density - Specific Gravity	1.2	g/cm ³	ASTM D792
Mechanical			
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
Impact			
Notched Izod Impact, (3.18 mm, Method A)	640	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	120		ASTM D785
Thermal			
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	127	°C	ASTM D648
Additional Information			
Water Absorption at 24 hrs, (23 °C)	0.15	%	ASTM D570
UL Information			
Flame Rating, (1.5 mm)	V-2		UL 94
UL File Number	E150937		

Injection Parameters	Nominal Value	Units
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