



# GAZOLE™ 5200P

**Product Details:** Ultra High performance thermoplastic polymer, unreinforced PBI Poly (2, 5 benzimidazole), semi crystalline, fine powder for compression molding, standard particle size distribution, color natural brown.

## Typical Properties

PROPERTY	TEST METHOD/CONDITIONS	UNIT	GAZOLE™ 5200P
<b>General Properties</b>			
Bulk Density	ASTM D 1895B	g/cc	0.15
Solid Density	23°C	g/cc	1.3
Moisture Content	GSRF	%	2-3
Hardness Rockwell	ASTM D 785	M	125
Hardness Shore D	ASTM D 2240	D	95

## Particle Size Distribution

D(100.0): <130.0 micron

## Thermal Properties

Glass Transition Temperature(Tg)	DMA	°C	467
Heat Deflection Temperature (HDT)	ASTM D 648 /1.8 MPa	°C	440
Continuous Use Temperature (Expected)	UL 746B	°C	400
Temperature of Initial (5%) Weight Loss in:			
Air	TGA	°C	565
Nitrogen	TGA	°C	523

## Mechanical Properties at 23°C

Tensile Strength	ASTM D 638	MPa	160
Tensile Modulus	ASTM D 638	MPa	5900
Elongation at Break	ASTM D 638	%	3
Compressive Strength	ASTM D 785	MPa	390
Compressive Modulus	ASTM D 785	MPa	5900
Flexural Strength	ASTM D 790	MPa	220
Flexural Modulus	ASTM D 790	MPa	6500
Izod Impact Strength (Notched)	ASTM D 256	J/m	21
(Unnotched)	ASTM D 256	J/m	600



PROPERTY	TEST METHOD/CONDITIONS	UNIT	GAZOLE™ 5200P
<b>Electrical Properties</b>			
Dielectric Strength	ASTM D 149/ 3.2mm thickness	kVmm <sup>-1</sup>	23
Surface Resistivity	ASTM D 257	Ω	10 <sup>15</sup>
Volume Resistivity	ASTM D 257	Ωcm <sup>-1</sup>	10 <sup>15</sup>
Arc Resistance	ASTM D 495/@ 500 Volts	sec	185

<b>Fire Properties</b>			
Flammability	UL 94/0.8 mm	-	V-0

<b>Recommended Processing Conditions</b>	
Drying Temperature/Time	4-6 hrs at 150°C

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