

# Celazole<sup>®</sup> TL-60

## Self Lubricating Melt Processable PBI

### Typical Properties

PROPERTIES	ASTM METHOD	ENGLISH VALUE	METRIC VALUE
<b>MECHANICAL</b>			
Tensile Strength	D-638	14 kpsi	96 MPa
Modulus		1990 kpsi	13,700 MPa
Elongation		0.9%	0.9%
Flexural Strength	D-790	23 kpsi	158 MPa
Modulus		1790 kpsi	12,300 MPa
Compressive Strength	D-695	18 kpsi	123 MPa
Modulus		740 kpsi	5100 MPa
<b>TRIBOLOGICAL *</b>			
Wear Rate		0.43 in/1000 hrs	11 mm/1000 hrs
Running Temperature		293°F	145°C
Static Coefficient of Friction		0.30	0.30
Dynamic Coefficient of Friction		0.08	0.08
<b>THERMAL</b>			
Coefficient of Linear Thermal Expansion			
75-300°F	TMA	14 X 10 <sup>-6</sup> in/in°F	26µm/m°C
Heat Capacity @ 158°F	DSC	0.28 Btu/lb°F	1160 J/kg°C
Heat Deflection Temperature	D-648	590°F	310°C
Temperature of Initial (5%) Weight Loss In:			
Air	TGA	1116°F	602°C
Nitrogen	TGA	1123°F	606°C
Thermal Conductivity @ 70°F	F-433	5.3 Btu-in/hr•ft <sup>2</sup> °F	0.76 W/M°C
<b>OTHER</b>			
Specific Gravity		1.4	1.4
Hardness, Rockwell A	D-785	24	24
Poisson's Ratio		0.42	0.42
Water Absorption	D-570		
24 hrs @ 73°F		0.20%	0.20%
@ Equilibrium		3.8%	3.8%

\* Test Conditions  
Mating Material – 1018 Steel  
Pressure – 100 psi  
Velocity – 1000 ft/min  
Surface Finish – 16 rms

PBI Performance Products, Inc.  
9800 Southern Pine Blvd Suite D  
Charlotte, NC 28273 USA  
704.554.3378  
www.CelazolePBI.com