

# Celazole® (T Series) TL-60

Polybenzimidazole

PBI Performance Products, Inc.

## Message:

Celazole TL-60 is a lube grade blend offering superior wear resistance, low friction, chemical resistance and high load bearing capability. Well-suited for rotor vanes, thrust bearings, plane bearings, bushings and other friction management applications - particularly under load.

General Information			
Additive	Lubricant		
Features	Good Chemical Resistance		
	Good Wear Resistance		
	Low Friction		
	Lubricated		
Uses	Bearings		
	Bushings		
Forms	Pellets		
Processing Method	Extrusion		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.43	g/cm <sup>3</sup>	
Water Absorption			ASTM D570
23°C, 24 hr	0.20	%	
Equilibrium	3.8	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (A-Scale)	24		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	17900	MPa	ASTM D638
Tensile Strength	110	MPa	ASTM D638
Tensile Elongation (Break)	0.90	%	ASTM D638
Flexural Modulus	13100	MPa	ASTM D790
Flexural Strength	159	MPa	ASTM D790
Compressive Modulus	5100	MPa	ASTM D695
Compressive Strength	124	MPa	ASTM D695
Poisson's Ratio	0.42		
Coefficient of Friction <sup>1</sup>			
vs. Steel - Dynamic	0.050		
vs. Steel - Static	0.30		

Wear Rate	0.200	in/1000 hr	
Heat Capacity (70°C)	1170	J/kg/°C	DSC
Running Temperature	177	°C	
Temperature of Initial Weight Loss			Internal Method
Air	602	°C	
Nitrogen	606	°C	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	310	°C	ASTM D648
CLTE - Flow (24 to 149°C)	2.5E-5	cm/cm/°C	TMA
Thermal Conductivity (21°C)	0.76	W/m/K	ASTM F433
NOTE			

1. Mating Material - 1018 Steel,  
Pressure - 125 psi, Velocity - 800  
ft/min, Surface Finish - 16 rms

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#### Recommended distributors for this material

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