DAIDO METAL

Pb Free RoHS ELV

DDL02 Metal Polymer Bearings

This is an environmentally friendly lead-free bearing, the material structure of which consists of multiple layers of PTFE (polytetrafluoroethylene), porous intermediate layer and steel backing. Due to improved sliding and porous layers, boundary surface performance and fluid lubrication are also improved. Bearing less than 10mm in diameter can be produced with a 0.5mm wall thickness for lighter, more compact designs for solenoids and other applications.

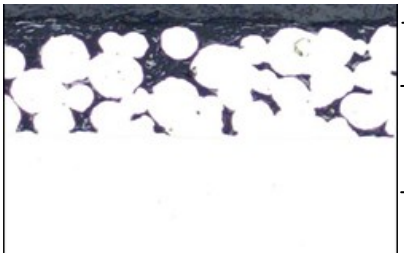
MAJOR APPLICATIONS

Solenoid, shock absorbers, and general-purpose industrial machinery

FEATURES

- Light weight, thin wall construction for compact equipment design
- Offers a low coefficient of friction and excellent wear-resistance along boundary surfaces and under fluid lubrication
- Eliminates “stick and slip” thanks to a low coefficient of friction
- Offers superior resistance to chemical substances
- Offers cavitation-resistant performance
- Performs well through an extended range of operating temperatures

MICROSTRUCTURE



CHARACTERISTICS

		Metric		Imperial	
Max Load, P	Static	MPa (N/mm^2)	240	psi	34,800
	Dynamic	MPa (N/mm^2)	110	psi	16,000
Temperature Range		°C	-200 ~ +280	°F	-328 ~ +536
Coefficient of Thermal Exp.	Parallel to Surface	10^{-6}/°C	11	10^{-6}/°F	6
	Thickness Direction	10^{-6}/°C	25	10^{-6}/°F	14
Dry Condition	Max Sliding Speed, V	m/s	—	fpm	—
	Max PV	MPa x m/s	—	psi x fpm	—
Coefficient of Friction			—		—
Wet condition	Max Sliding Speed, V	m/s	10	fpm	2,000
	Max PV	MPa x m/s	5	psi x fpm	145,000
Coefficient of Friction			0.01-0.05*		0.01-0.05*

* Depending on the operating conditions

Note: This data is not guaranteed. Since conditions differ every application, it may be able to be used beyond the listed value.

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