

DTK57 Metal Polymer Bearings



This is an environmentally friendly, lead-free bearing material. Cooper-tin alloy is sintered onto a steel backing, and the bearing surface is a mixture of PEEK (polyetheretherketone) and a special filler. It exhibits **excellent wear resistance** and durability under boundary and fluid lubrication conditions, and has good sliding characteristics due to PEEK, the special filler, strength of the metal material and dimensional stability.

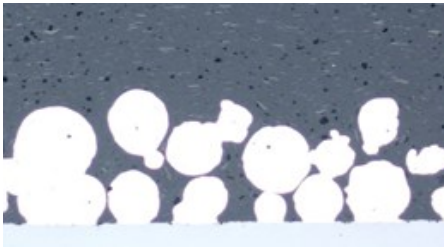
MAJOR APPLICATIONS

Fuel injection pumps, piston pumps, and general-purpose industrial machinery

FEATURES

- Provides performance under high loads that is comparable to metal bearings
- Offers a low coefficient of friction and excellent wear-resistance along boundary surfaces and under fluid lubrication
- Offers superior resistance to chemical substances
- Offers cavitation-resistant performance
- Machinability of inside diameter

MICROSTRUCTURE



— PEEK + special fillers
 — Porous sintered bronze
 — Steel backing

CHARACTERISTICS

		Metric		Imperial	
Max Load, P	Static	MPa (N/mm ²)	140	psi	20,500
	Dynamic	MPa (N/mm ²)	100	psi	14,500
Temperature Range		°C	-150 ~ +250	°F	-238 ~ +482
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	10	psi x fpm	290,000
Coefficient of Friction			~0.3*		~0.3*

* 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.

