

Oiles Toughmet

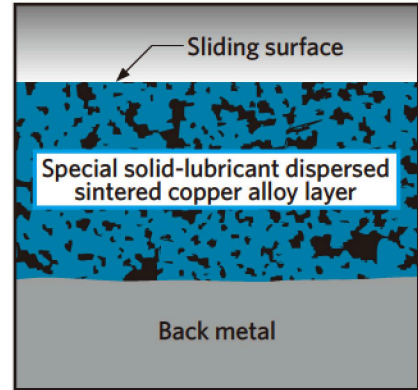
Solid-lubricant dispersed sintered bearings with back metals

Standard product/Custom-made product



Feature

- Has superior load resistance and heat resistance. Also conductive.
- Demonstrates superior performance even in reciprocating, oscillating, and intermittent operations.
- Demonstrates much superior performances by the action of oil retaining power of the sintered copper alloy layer and solid lubricant if lubricating oil is used together.
- Thin bearing allows compact design.
- Electrically conductive.
- The standard products are available in various sizes.



image

Service range

Lubrication condition	Dry
Service temperature range °C	-40~+350
Allowable max. pressure P N/mm ² {kgf/cm ² }	24.5 (49) {250 (500)}
Allowable max. velocity V m/s {m/min}	0.40 {24}
Allowable max. PV value N/mm ² · m/s {kgf/cm ² · m/min}	1.65 {1,010}

The values in parentheses are static bearing pressures, which are the bearing pressures in applications with no motion or very small motion (≤ 0.0017 m/s [0.1m/min]).

Mechanical properties

Tensile strength	JIS Z 2241	N/mm ² {kgf/cm ² }	380 {3,875}
Elongation	JIS Z 2241	%	27
Hardness	JIS Z 2244	Hv	107

※The values shown above are typical values, not the standard values.

※The values shown above are values of back metal.

Test data

Journal oscillation test

<Testing conditions>

Bearing dimension : $\phi 40 \times \phi 44 \times l 30$

Pressure : 9.8N/mm² {100.0kgf/cm²}
19.6N/mm² {200.0kgf/cm²}

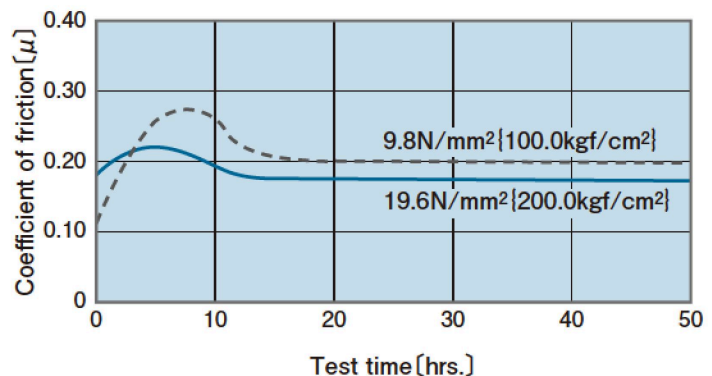
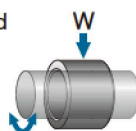
Velocity : 0.014m/s {0.84m/min}

Oscillating angle : $\pm 20^\circ$

Oscillating cycle : 30cpm

Test time : 50hrs.

Lubrication : grease is applied at assembly.



◎Please refer to the fitting method of Drymet LF. (P.149, 150)