

Oiles 500HP Hard special copper alloy bearings with embedded solid lubricant



Features

- Bears higher loads than the 500SPs.
- Demonstrates superior wear resistance under high-load and low-speed applications.

Service range	500HP SL1	
Lubrication condition	Dry	periodic lubrication
Service temperature range °C	-40~+150	
Allowable max. pressure P N/mm ² {kgf/cm ² }	73 (180) {745 (1,837)}	
Allowable max. velocity V m/s {m/min}	0.10 {6}	0.25 {15}
Allowable max. PV value N/mm ² · m/s {kgf/cm ² · m/min}	1.65 {1,010}	3.25 {1,990}

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]).

※Above values are applicable when solid lubricants SL1 are used.

Mechanical properties

Density	—	g/cm ³	7.6
Tensile strength	JIS Z 2241	N/mm ² {kgf/mm ² }	540 {55}
Tensile elongation at break	JIS Z 2241	%	0.3
Compressive strength	—	N/mm ² {kgf/mm ² }	490 {50} (Note)
Hardness	JIS Z 2243	HBW	245
Modulus of longitudinal elasticity.	—	N/mm ² {kgf/mm ² }	127,000 {13,000}
Co-efficient of linear expansion	—	$\times 10^{-5}$ °C ⁻¹	1.8

※The values shown above are typical values, not the standard values.
(Note) Compressive strength is 0.2%

▲ Please indicate the type of motion (rotation, reciprocating, rotation & reciprocating) for custom-made products.

▲ Solid lubricant, SL401 and SL403 are not lead-free.

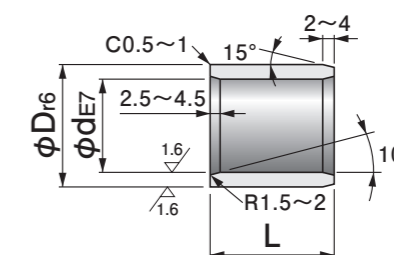
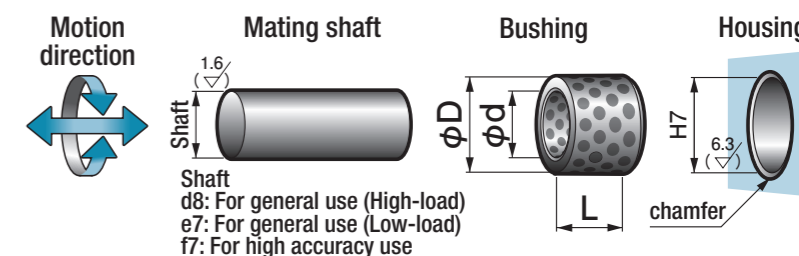
HPB Oiles 500HP SL1 Bushings



Specify Part No. by required I.D., O.D. and Length.
(e.g.) I.D. is 30mm, O.D. is 40mm, and length is 40mm.

HPB - 304040

Part No.



Part No.	I.D.		O.D.		Length		I.D. tolerance after press fitting (reference)
	ϕd	Tolerance	ϕD	Tolerance	L	Tolerance	
HPB-203020	20	+0.061 +0.040	30	+0.041 +0.028	20	-0.1 -0.3	+0.037 +0.016
HPB-203025	20	+0.061 +0.040	30	+0.041 +0.028	25	-0.1 -0.3	+0.037 +0.016
HPB-203030	20	+0.061 +0.040	30	+0.041 +0.028	30	-0.1 -0.3	+0.037 +0.016
HPB-253520	25	+0.061 +0.040	35	+0.050 +0.034	20	-0.1 -0.3	+0.030 +0.009
HPB-253530	25	+0.061 +0.040	35	+0.050 +0.034	30	-0.1 -0.3	+0.030 +0.009
HPB-304030	30	+0.061 +0.040	40	+0.050 +0.034	30	-0.1 -0.3	+0.032 +0.011
HPB-304040	30	+0.061 +0.040	40	+0.050 +0.034	40	-0.1 -0.3	+0.032 +0.011
HPB-405040	40	+0.075 +0.050	50	+0.050 +0.034	40	-0.1 -0.3	+0.046 +0.021
HPB-405050	40	+0.075 +0.050	50	+0.050 +0.034	50	-0.1 -0.3	+0.046 +0.021
HPB-506050	50	+0.075 +0.050	60	+0.060 +0.041	50	-0.1 -0.3	+0.045 +0.020
HPB-506060	50	+0.075 +0.050	60	+0.060 +0.041	60	-0.1 -0.3	+0.045 +0.020
HPB-607550	60	+0.090 +0.060	75	+0.062 +0.043	50	-0.1 -0.3	+0.053 +0.023
HPB-607560	60	+0.090 +0.060	75	+0.062 +0.043	60	-0.1 -0.3	+0.053 +0.023

※The I.D. tolerance after press fitting is for reference only.

▲ The dimensional tolerances are the values measured at +25°C.