CSB-40 Steel Bronze Powder with PTFE/Fibre Dry Bearings

RoHS

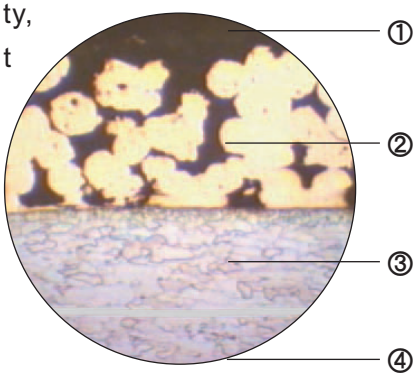
Structure

1. PTFE/Polymer fibres mixture thickness 0.01~0.03mm. Lead-free bearing layer provides an excellent initial transfer film, which effectively coats the mating surfaces of the bearing assembly, forming an oxide type solid lubricant film.

2. Sintered bronze powder thickness 0.20-0.35mm, provides max. thermal conductivity away from the bearing surface, also serves as a reservoir for the PTFE mixture.

3. Steel backing, provides high load carrying capacity, excellent heat dissipation.

4. Copper/Tin plating thickness 0.002mm, provides good corrosion resistance.



Features

Suitable for dry running, low coefficient of friction, lower wear, good sliding characteristics, the transfer film created can protect the mating metal surfaces, suitable for rotating and oscillating movement, high chemical resistance, low absorption of water and swelling. The CSB-40 improved the friction and much good wear resistance over the common CSB-50 range under lubricated operation.

Tech. Data

Max. load	Static	250N/mm^2
	Very low speed	140N/mm^2
	Rotating oscillating	60N/mm^2
Max. PV dry running	Short-term operation	3.6N/mm^2*m/s
	Continuous operation	1.8N/mm^2*m/s
PV max. hydrodynamic		30N/mm^2*m/s

Temp. limit		-195°C~+280°C
Max. speed	Dry running	2m/s
	Hydrodynamic operation	>2m/s
Thermal conductivity		42 W(m*K)$^{-1}$
Coefficient of thermal expansion		11*10^{-6}*K^{-1}
Friction coefficient	Dry	0.08~0.20
	Hydrodynamic	0.03~0.08

Typical Applications

CSB-40 is developed for high duty, oil lubricated, hydraulic applications…Automotive suspension struts, shock absorbers guide bushing, hydraulic cylinders, gear pumps, motors, axial and radial piston pumps & motors. CSB-40 is designed mainly for using under lubricated conditions and it performs excellent wear resistance and low static/dynamic friction coefficient.