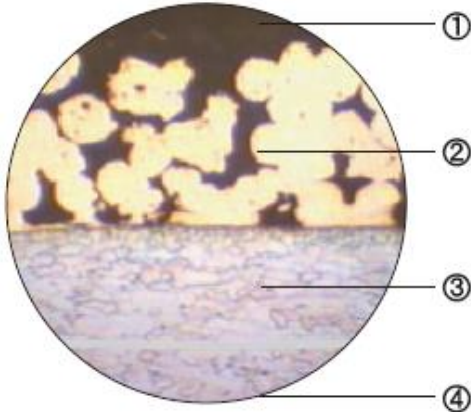


## MATERIAL

**AST- 40 Steel Bronze Powder with PTFE/Fiber Dry Bearings**

RoHS



### Structure

1. The 0.01-0.03mm thick PTFE/polymer fiber mixture and lead-free bearing layer provide an excellent initial transfer film which effectively coats the mating surfaces of the bearing assembly to form an oxide type solid lubricant film.

2. The sintered bronze powder thickness of 0.20-0.35 mm, provides maximum conductivity of heat away from the bearing surface and acts as a reservoir for the PTFE/Fiber mixture.

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

4. The 0.002 mm thick Copper/Tin plating provides good corrosion resistance.

### Features

Suitable for dry running, with a low coefficient of friction, lower wear, and good sliding characteristics, the transfer film created can protect the mating metal surface in applications with rotary and oscillating motion. These bearings also have very good chemical resistance and low water absorption and swelling. They offer lower friction and good wear resistance over the AST-50 range in lubricated operation.

### Typical Applications

The AST-40 is developed for high duty, oil lubricated, hydraulic applications, automotive suspension struts, shock absorber guide bushings, hydraulic cylinders, gear pumps, motors, axial and radial

### Technical Data

Max. load	Static	250N/mm <sup>2</sup>	Temp. Limit	-195°C ~ +280°C		
	Very low speed	140N/mm <sup>2</sup>		Max. speed	Dry running	2m/s
	Rotating oscillating	60N/mm <sup>2</sup>			Hydrodynamic operation	>2m/s
Max. PV dry running	Short-term operation	3.6N/mm <sup>2</sup> *m/s	Thermal conductivity		42W(m*K) <sup>-1</sup>	
	Continuous operation	1.8N/mm <sup>2</sup> *m/s	Coefficient of thermal expansion		11*10 <sup>-6</sup> *K <sup>-1</sup>	
PV max. hydrodynamic	30N/mm <sup>2</sup> *m/s		Friction Coefficient	Dry	0.08 ~ 0.20	
				Hydrodynamic	0.03 ~ 0.08	

piston pumps & motors. The AST-40 is designed mainly for use in lubricated conditions and offers excellent wear resistance and a low static/dynamic friction coefficient.