

Metal - polymer  
Dry Bearings



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**DP4**

**Steel Backing  
Coating with  
PTFE/Polymer Fibres  
Mixture**

**DP4-B**

**Bronze Backing  
Coating with  
PTFE/Polymer Fibres  
Mixture**

## DP4 Steel Backing / Bronze Powder / PTFE and Polymer Fibres Dry Bearing



### 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 DP4 improved the friction and much good wear resistance over the common DU bearing range under lubricated operation.

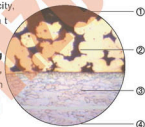
### Structure

**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.



### Tech. 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		42 W/(m <sup>2</sup> 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	

### Typical Applications

DP4 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. DP4 is designed mainly for using under lubricated conditions and it

performs excellent wear resistance and low static/dynamic friction coefficient.