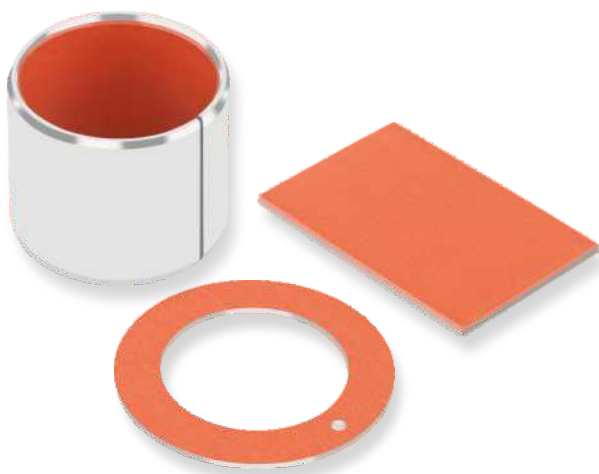


## DS

### METAL-POLYMER HYDRODYNAMIC COMPOSITE BEARINGS



### APPLICATIONS

**Automotive** – Steering gear, power steering, pedal bushes, seat slides, king-pin bushes, tailgate pivots, brake caliper bushes, etc.

**Industrial** – Mechanical handling and lifting equipment, machine slides, hydraulic cylinders, hydraulic motors, ski lifts, pneumatic equipment, medical equipment, textile machinery, agricultural equipment, scientific equipment, etc.

### CHARACTERISTICS

- Self-lubricating bushings for operation in mixed film lubrication conditions
- Sliding layer is machinable (ca. 0.4 mm above bronze sinter layer)
- Resistant to fretting corrosion damage to the shaft under low amplitude oscillating movements
- Similar in performance to DX® but with lower friction

### AVAILABILITY

**Bearing forms made to order:** Cylindrical bushes, thrust washers, sliding plates, half-bearings, special shapes obtained by stamping, customized bearing designs



BEARING PROPERTIES		IMPERIAL UNITS	IMPERIAL VALUE	METRIC UNITS	METRIC VALUE
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GENERAL					
Maximum load, p	Static	psi	16 000	N/mm <sup>2</sup>	110
	Dynamic	psi	6 500	N/mm <sup>2</sup>	45
Operating temperature	Min	°F	- 80	°C	- 60
	Max	°F	270	°C	130

DRY					
Maximum sliding speed, U		fpm	300	m/s	1.5
Maximum pU factor		psi x fpm	40 000	N/mm <sup>2</sup> x m/s	1.4
Coefficient of friction, f			0.15 - 0.30		0.15 - 0.30

GREASE LUBRICATED					
Maximum sliding speed, U		fpm	500	m/s	2.5
Maximum pU factor		psi x fpm	80 000	N/mm <sup>2</sup> x m/s	2.8
Coefficient of friction, f			0.05 - 0.10		0.05 - 0.10

OIL LUBRICATED					
Maximum sliding speed, U		fpm	2 000	m/s	10.0
Maximum pU factor		psi x fpm	286 000	N/mm <sup>2</sup> x m/s	10.0
Coefficient of friction, f			0.03 - 0.08		0.03 - 0.08

RECOMMENDATIONS					
Shaft surface roughness, Ra	Lubricated	µin	≤ 16	µm	≤ 0.40
Shaft surface hardness	Normal	HB	> 200	HB	> 200
	For longer service life	HB	> 350	HB	> 350

**OPERATING PERFORMANCE**

Dry	Good
Oil lubricated	Very Good
Grease lubricated	Very Good
Water lubricated	Poor
Process fluid lubricated	Poor

**FOR SUPERIOR / LEAD-FREE PERFORMANCE**

Water lubricated	HPM / HPF / DP4-B
Process fluid lubricated	DP4 / GAR-FIL / HI-EX

**MICROSECTION**

