

DS

Metal-Polymer Self-Lubricating Bearings



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

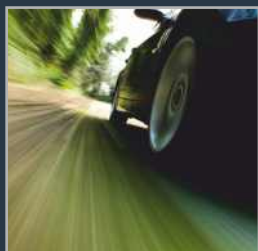
Bearing forms made to order: cylindrical bushes, thrust washers, sliding plates, half-bearings, special shapes obtained by stamping, customized bearing designs



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.



DS Technical Data

Bearing Properties		Imperial Units	Imperial Value	Metric Units	Metric Value
General					
Maximum load, p	Static	psi	16 000	N/mm ²	110
	Dynamic	psi	6 500	N/mm ²	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 ² x m/s	1.4
Coefficient of friction			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 ² x m/s	2.8
Coefficient of friction			0.05 - 0.10		0.05 - 0.10
Oil Lubricated					
Maximum sliding speed, U		fpm	2 000	m/s	10.0
Maximum pU factor		Mpa x m/s	286 000	N/mm ² x m/s	10.0
Coefficient of friction			0.03 - 0.08		0.03 - 0.08
Recommendations					
Shaft surface roughness, Ra		µin	≤ 16	µm	≤ 0.4
Shaft surface hardness	Normal	HB	>200	HB	>200
	For longer service life	HB	>350	HB	>350

* Depending on operating conditions

Operating Performance

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

For Superior Performance

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

Microsection



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