GGB
BEARING TECHNOLOGY
an EnPro Industries company

The Global Leader
in High Performance Bearing Solutions

DP31

Metal-Polymer Hydrodynamic Composite Bearings




CHARACTERISTICS

- Excellent low friction and wear resistance performance in lubricated applications
- Excellent flow erosion and cavitation resistance
- Very good fatigue strength
- Lead-free material compliant to EVL, WEEE, and RoHS specifications

AVAILABILITY

Bearing forms made to order: cylindrical bushes, flanged bushes, thrust washers, flanged thrust washers, sliding plates, half-bearings, bearings with locating notches, lubricant holes and machined/ stamped grooves, customized bearing designs

APPLICATIONS

Automotive: Air conditioning compressors, gearbox and transmissions, heavy duty struts and shock absorbers, high performance pumps: axial piston, radial piston, gear, vane, etc.

Industrial: Compressors: scroll and reciprocating; pneumatic and hydraulic cylinders, high performance pumps axial piston, radial piston, gear, vane, etc.




For additional market / product offerings, go to https://www.ggbearings.com

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DP31 Technical Data

Bearing Properties		Imperial Units	Imperial Value	Metric Units	Metric Value
General					
Maximum load, p	Static Dynamic	psi psi	36 000 20 000	N/mm^2 N/mm^2	250 140
Operating temperature	Min Max	°F °F	- 328 536	°C °C	- 200 280
Coefficient of linear thermal expansion	Parallel to the surface Normal to the surface	10^{-6}/F 10^{-6}/F	6 17	10^{-6}/K 10^{-6}/K	11 30
Oil Lubricated					
Maximum sliding speed, U		fpm	2 000	m/s	10.0
Maximum pU factor		psi x fpm	286 000	N/mm^2 x m/s	10.0
Coefficient of friction			0.01 - 0.05		0.01 - 0.05
Recommendations					
Shaft surface roughness, Ra	Lubricated	µin	≤ 2 - 16*	µm	≤ 0.05 - 0.4*
Shaft surface hardness	Unhardened acceptable, improved bearing life	HB	> 200	HB	> 200

* Depending on operating conditions

Operating Performance	
Dry	Fair
Oil lubricated	Very Good
Grease lubricated	Fair
Water lubricated	Fair
Process fluid lubricated	Good

For Superior Performance	
Dry	DP4 / DP11
Grease lubricated	DP4 / DX
Water lubricated	DP4-B

Microsection

https://www.ggbearings.com/en/products/metal-polymer/dp31