

# HSG

**HIGH-LOAD FIBER REINFORCED  
COMPOSITE PTFE BEARINGS**



## APPLICATIONS

**Industrial** – Steering linkages, hydraulic cylinder pivots, king pin bearings, boom lifts, scissor lifts, cranes, hoists, lift gates, backhoes, trenchers, skid steer loaders, front end loaders, etc.

## CHARACTERISTICS

- Self-lubricating plain bearing material
- High static load capacity (twice as much as standard GAR-MAX® bearings)
- Excellent shock and misalignment resistance
- Excellent contamination resistance
- Very good friction and wear properties
- Good chemical resistance
- Tested acc. to ASTM E595/ECSS-Q-ST-70-02C - Outgassing properties of materials used in Spacecraft equipment

## AVAILABILITY

**Bearing forms available in standard dimensions:**  
Plain cylindrical bushes

**Bearing forms made to order:** cylindrical bushes with non-standard lengths and wall thickness, flanged bearings, hexagonal and square bores, liner on outer diameter, customized bearing designs



BEARING PROPERTIES		UNITS	VALUE
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**GENERAL**

Maximum load, p	Static	N/mm <sup>2</sup>	415
	Dynamic	N/mm <sup>2</sup>	140
Operating temperature	Min	°C	- 195
	Max	°C	160

**DRY**

Maximum sliding speed, U		m/s	0.13
Maximum pU factor		N/mm <sup>2</sup> x m/s	1.05
Coefficient of friction, f			0.05 - 0.30*

**RECOMMENDATIONS**

Shaft surface roughness, Ra		µm	0.15 - 0.40
Shaft surface hardness	Normal	HB	> 350
	For longer service life	HB	> 480

\* Depending on operating conditions

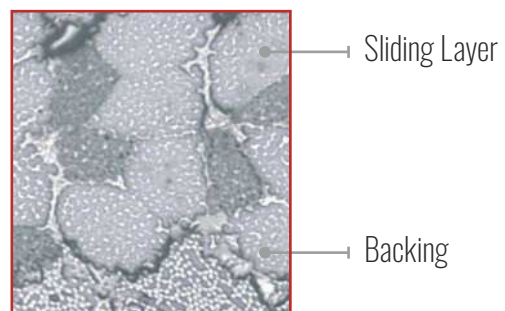
**OPERATING PERFORMANCE**

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

**FOR SUPERIOR PERFORMANCE**

Oil lubricated	GAR-FIL
Grease lubricated	DX / DX10
Water lubricated	HPF / HPM
Process fluid lubricated	GAR- FIL

**MICROSECTION**



For additional product offerings visit:  
<https://www.ggbearings.com/en/our-products/fiber-reinforced-composite-bearings/hsg>