

GGB-CBM[®]

**THIN WALLED BIMETAL BEARINGS
MADE BY METALLURGIC POWDER**



APPLICATIONS

Industrial – General mechanical engineering, applications at high loads, iron foundry, steel and aluminum industry, furnaces, blower, steel works, food and beverage industry, packaging equipment, agriculture and construction machines, handling equipment, tire molds, etc.

CHARACTERISTICS

- Self-lubricating and maintenance-free bearings with homogeneously distributed solid lubricant (graphite) in the sliding layer
- High load capacity and suited to temperatures from -150°C up to 280°C
- Cylindrical bearings can be produced with an inner diameter up to 600 mm and a length up to 200 mm
- Different metallic backings are available: stainless steel, carbon steel or bronze
- Lead-free alloys are available

AVAILABILITY

Bearing forms made to order: Cylindrical bearings, flanged bearings, axial washers, sliding plates, half shells, axial and radial segment rings, spherical plain bearings, customized bearing forms



BEARING PROPERTIES		UNITS	VALUE
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GENERAL

Maximum load, p	Static	N/mm ²	260 - 280
	Dynamic	N/mm ²	80 - 150
Operating temperature	Min	°C	- 150
	Max	°C	280
Coefficient of linear thermal expansion		10 ⁻⁶ /K	12 - 16

DRY

Maximum sliding speed, U		m/s	0.3 - 0.5
Maximum pU factor		N/mm ² x m/s	0.5 - 1.0
Coefficient of friction, f			0.10 - 0.20

WATER LUBRICATED

Coefficient of friction, f			0.10 - 0.15
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RECOMMENDATIONS

Shaft surface roughness, Ra		µm	0.2 - 0.8
Shaft surface hardness		HB	> 180 - > 250

* Bearing properties and recommendations depending on GGB-CBM® material grade. This information is available by downloading the GGB-CBM® brochure.

OPERATING PERFORMANCE

Dry	Good
Oil lubricated	Good
Grease lubricated	Good
Water lubricated	Good
Process fluid lubricated	Depending on Fluid

MICROSECTION



- Solid Lubricant: Graphite
- Metallic Matrix: Bronze based
- Backing: Stainless Steel, Carbon Steel or Bronze