



# glebusalloys

## SELF-LUBRICATING BEARINGS FOR INJECTION MOULDING MACHINERY

Taming friction and wear for smooth &  
efficient operation of your machinery

# GLEBUS ALLOYS

## About us

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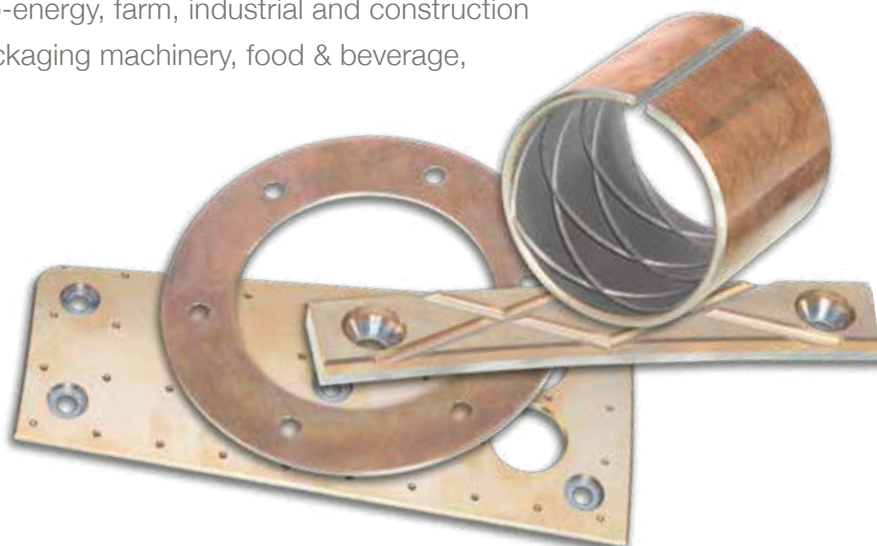
# glebusalloys

Glebus Alloys manufactures maintenance free, self lubricating bearings, wear plates and bushings. We produce G-METAL™, a material that combines graphite and bronze to form a single self-lubricating metal compound.

The Glebus Alloys technology of sintered metallic graphite impregnated self-lubricating materials originates from a well-known specialty powder metallurgy manufacturer Ceramet founded in 1965 in Poland. Adding up of more than 25 years of own industrial application experience Glebus Alloys manufactures and supplies reliable low friction self-lubricating components, advanced tribological solutions and provides professional application engineering support services. We are proud of our heritage and our manufacturing mastery.

## REFERENCES

Glebus Alloys track record includes successful long term cooperation and partnership with many global leaders in various industrial areas, including manufacturing of tires, presses, calenders, metallurgy, fluid power, gear pumps and compressors, wind and hydropower clean energy, steam and gas turbines, waste-to-energy, farm, industrial and construction equipment, material handling, packaging machinery, food & beverage, marine, offshore, and aerospace.



# GLEBUS ALLOYS

## Cooperation Benefits

### BENEFITS FROM TEAMING UP WITH GLEBUS ALLOYS

- Own manufacturing plant based in the EU
- Successful track record since 1965
- Integrated supply chain and short lead-times
- Application engineering customer support
- Own R&D and testing
- Focus on sintered self-lube parts
- Competitive pricing
- Global footprint

### SELF-LUBRICATING PLAIN BEARINGS, BUSHINGS & SLIDING PLATES PROVIDE THE GREATEST ADVANTAGE IN CRITICAL APPLICATIONS

- Maintenance-free service
- Inexpensive, easy and fast to replace
- Suitable for intermittent movements
- Great at service requiring tighter tolerances, higher flexibility or shock absorption
- Allowing for enormous variability in shapes and sizes, solutions taking less space
- High load endurance that offers high wear resistance
- Clean working environment
- Removing fire hazard by eliminating of grease
- High number of cycles due to special selflubricating sliding surface resulting in low wear rate
- Tight tolerance and low wear to guarantee precise closing of the machine
- Optional lubricating pockets for grease and oil lubrication available



# G-METAL® For Injection Moulding

G-Metal self-lubricating bimetallic plain bearings, bushings and plates consisting of stainless or low carbon steel backing covered with a sintered sliding layer are especially suitable for continuous operations under high loads that require high wear resistance paired with shock absorption characteristics. Sintering technology allows for construction and manufacturing of wide range of complex shapes with consistent self-lubricating properties throughout the whole lifecycle of the critical moving parts. G-Metal based materials provide reliable and high-performance no-grease solutions for demanding industrial applications.

## MECHANICAL PROPERTIES & APPLICATION DATA

### G-METAL GBM 421

Compression Strength	300 MPa	Max. PV value dry	1 N/mm <sup>2</sup> x m/s
Min. hardness	40 HB	Typical coefficient of friction, dry	0.10 - 0.20
Density	6.2 g/cm <sup>3</sup>	Typical coefficient of friction, wet	0.10 - 0.15
Type of solid lubricant	C	Service temperature min/max	-150/280 °C
Max. static load	260 MPa	Min. hardness counter material	250 HB
Max. dynamic load	100 MPa	Recommended surface roughness, counter material Ra	0.2 - 0.8 µm
Max. sliding speed, dry	0.5 m/s		

**Important remark: the above mentioned material properties, in particular friction coefficients, are not assured properties. They are to be used only as guideline for selection of materials.**

## BEST FIT OF GLEBUS BEARINGS IN INJECTION MOULDING EQUIPMENT

- Sliding plates for turntables
- Tie bar guide bushings
- Sliding pads
- Toggle and crosshead guide bushes
- Adjustment and Expansion bushings