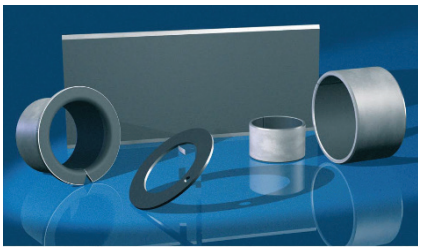
TENNECO POWERTRAIN

GLYCODUR®

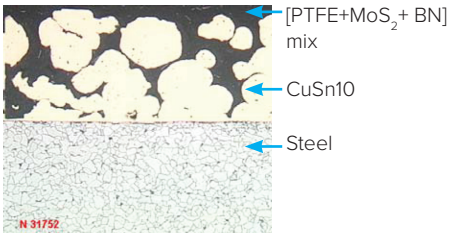
Product/Technology
GLYCO® 97

Application
Dry Applications

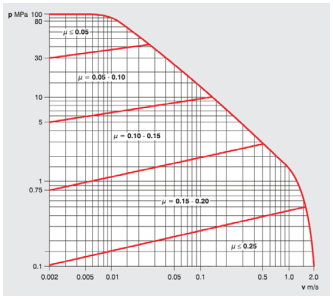
Maintenance free bearing material for performance demanding dry running applications



GLYCO® 97 design types



Photomicrograph of the 3-layer material (steel back + sliding layer of porous bronze + compound of PTFE and additives)



pv-diagram under dry running operation including friction value ranges

Challenge

For some applications operated without any lubrication, maintenance free bearings do not achieve the targeted service life. Performances in friction improving the system efficiency are also below expectations.

Reasons could be the use of standard performance PTFE-materials, not optimized for dry running conditions at higher loads and long operation periods.

Solution

GLYCO® 97 is a sliding material especially developed for dry applications. It is distinguished by a high load carrying capacity and wear resistance as well as a low friction coefficient.

Specific additives to the PTFE base material have been used in order to improve these key performance characteristics.

Key Features

- Maintenance-free operation lubrication for use under severe dry running conditions
- High pv-value
- Good wear resistance
- High load capacity
- Low friction
- Rotating, oscillating and axial motion possible
- Wide range of part design types

Benefit	Details
High Load capacity (dry use)	static: max. 250 MPa dynamic: max. 100 MPa
Max. sliding velocity (dry use)	2.0 m/s
p.v. max. value	pv max. = 3.8 MPa x m/s under dry running conditions* *Standard Tenneco test conditions
Wide operating temperature range	- 200 to 260 °C

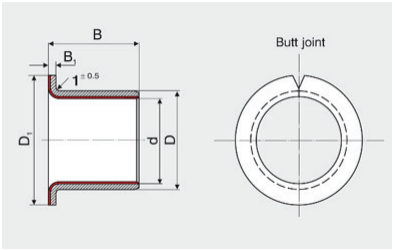
Additional Information

www.glycodur.de

GLYCO® 97 is a three layer composite material. A porous tin bronze sinter structure is applied on a steel back. This layer is impregnated with a PTFE sliding material and a specific combination of fillers especially chosen to improve the performance of this material under dry running conditions. On the top of this filled bronze structure, a 5 to 30 µm thick overlay of the same sliding material is applied, providing the initial lubrication during the running-in of the application.

GLYCO® 97 sliding bearings are therefore showing lower friction and in the same time higher wear resistance under dry operation compared to other standard PTFE-based materials. In addition, it is available on request with a thinner top layer offering advantages for applications involving a cataphoretic painting process.

Applications: Automotive dry running systems like vibration dampers, actuators, various hinges (door, trunk lid, hood, convertible roof), locking devices, pedal systems.



Flange design typically used in multiple hinge applications

Performance | Durability | Friction Reduction | Enabling Technologies | Green Technologies