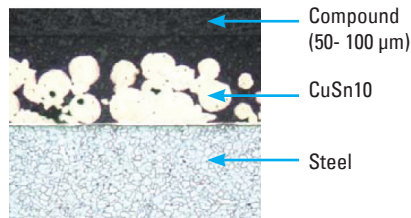


Maintenance free bearing material for high performance dry running damping applications

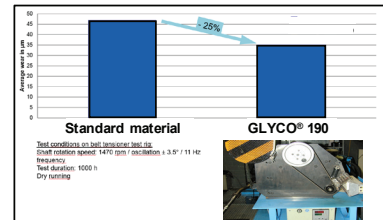


Washer and flange bushing mass production parts in GLYCO® 190



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

Belt tensioner results comparison



GLYCO® 190 with increased performances in wear resistance under dry use condition in a belt tensioner rig

Challenge

For some demanding damping applications running without any lubrication under oscillating conditions and soft mating surface, even solid plastic, maintenance free bearings do not achieve the targeted service life.

In addition friction improvement of the system efficiency is expected.

Solution

GLYCO® 190 is a sliding material especially developed for oscillating dry applications. Due to a high overlay thickness up to 100 µm, GLYCO® 190 provides additional PTFE wear reserve and enhanced tribological performances when running against soft counterparts.

Key Features

- GLYCO® 190 works with soft mating surfaces under dry condition
- Excellent adaptability
- Ability of operation within the PTFE-overlay during all application service life
- Low friction

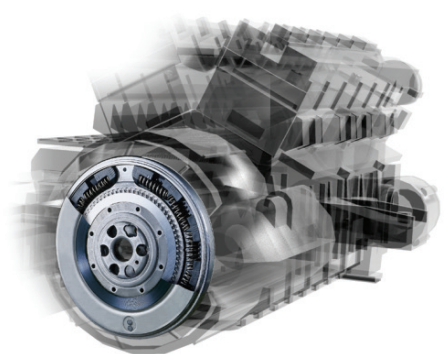
Benefit	Details
High Load capacity (dry use)	static: max. 250 MPa dynamic: max. 120 MPa
Max. sliding velocity (dry use)	2.0 m/s
Operating temperature	-200 to +260°C
Low Friction coefficient	Depending on operation condition from 0.04 to 0.12

Additional Information

GLYCO® 190 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 50 to 100 µm thick overlay of the same sliding material is applied, providing a sufficient wear reserve for the operation of the damping application without even using the below bronze layer.

GLYCO® 190 sliding bearings are therefore providing in multiple vibration damping applications with high levels of requirements longer service life than usual PTFE-based materials. In addition, it offers lower friction than most thermoplastic-based materials, thus improving efficiency of the used system. Possible combination with other material through laser welded flange bushing.

Applications: Automotive dry running dampers like various types of anti-vibration systems (e.g. dual mass fly wheel, belt tensioners, decoupling pulleys).



Dual mass fly wheel using GLYCO® 190 for improved performance under dry oscillation use